

# **Thompson Phase II and Isaacson Phase II Environmental Site Assessments**

**Report**  
**Phase II Environmental Site Assessment**  
**Boeing Thompson Property**  
**8811 East Marginal Way South**  
**Tukwila, Washington**

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Prepared for

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## **1.0 INTRODUCTION**

This report documents the results of a Phase II environmental site assessment (ESA) conducted in 2008 for The Boeing Company (Boeing) at the Thompson property (subject property) located at 8811 East Marginal Way South in Tukwila, Washington (Figure 1). The purpose of this investigation was to evaluate and document the soil and groundwater quality in areas of the subject property potentially impacted by Boeing operations as part of Boeing's risk management and due diligence activities. The areas of potential concern were identified as part of Boeing's Environment, Health, and Safety (EHS) property assessment process in the Phase I ESA previously conducted for the subject property (Landau Associates 2008a). The Phase I ESA identified environmental conditions at the subject property that, based on historical operations, previous investigations, or observations of site conditions, are considered to pose a potential liability to Boeing as owner of the property. In addition, Boeing requested investigation of a sump system and the facility compressed air system as part of Boeing's building decommissioning protocol. Boeing also requested that Landau Associates complete a round of groundwater sampling from existing wells on the subject property and the adjacent Boeing Isaacson property; the results of sampling of the eight wells on or near the subject property are included in this report. The results of this Phase II investigation will be used to evaluate potential impacts to soil or groundwater at the subject property and the need for additional action, if appropriate.

### **1.1 PROPERTY DESCRIPTION**

The subject property is currently owned and occupied by Boeing. Manufacturing operations were discontinued at the subject property in December 2007. The subject property is currently used for warehouse purposes. The subject property is improved with a 316,000 square foot (ft<sup>2</sup>) industrial building (Building 14-01) and several support structures including a boiler house (Building 14-02), two mechanical buildings (Buildings 14-03 and 14-14), a fire pump house and water tank (Building 14-13), an electrical substation (Building 14-22), two guard shacks (one out-of-use, unlabeled structure and Building 14-11), a cafeteria (Building 14-15), a restroom/shower facility (Building 14-12), and hazardous waste storage trailers (unlabeled). A site plan is provided as Figure 2.

### **1.2 BACKGROUND**

Landau Associates conducted a Phase I ESA at the subject property for Boeing (Landau Associates 2008a). The Phase I ESA included a review of historical environmental documentation for the subject property, and observations of current conditions at the subject property on January 31, 2008 and

April 21, 2008. The Phase I ESA identified the following *recognized environmental conditions* at the subject property that were considered to pose a potential liability to Boeing:

- Arsenic was detected in soil and groundwater at the subject property during previous investigations at concentrations greater than the Washington State Model Toxics Control Act (MTCA) cleanup levels. Arsenic was detected in groundwater at the subject property at concentrations ranging from 3.6 micrograms per liter ( $\mu\text{g/L}$ ) to 690  $\mu\text{g/L}$  during the most recent sampling event in 2008. The highest detected concentration of arsenic in soil at the subject property was 393 milligrams per kilogram ( $\text{mg/kg}$ ), which was detected in a sample collected in 1988 from within the former location of Slip 5. The presence of arsenic in soil and groundwater from the subject property at concentrations greater than MTCA cleanup levels is a *recognized environmental condition*.
- Historical records indicate that the Mineralized Cell Wood Preserving Company formerly operated in the vicinity of the subject property, on the northern side of the former Slip 5. The practice of this company involved heating a solution of arsenic and sulfate salts of copper and zinc, and applying the solution to the base of logs under pressure. Storage tanks associated with this operation were reportedly cleaned twice per day and sludge and remaining chemicals in the tanks were drained directly to the ground surface. The release of arsenic and metals to the ground surface is a *recognized environmental condition*.
- Based on previous subsurface investigations at the subject property, fill material within the former Slip 5 area includes bricks, wood debris, and slag material. Debris within the fill material is a potential source of impact to subsurface soil and groundwater at the subject property. Metals have been detected in the fill material at concentrations greater than the MTCA Method A cleanup levels. The presence of metals at concentrations greater than the MTCA cleanup levels is a *recognized environmental condition*.
- A large area of the western portion of Building 14-01 was formerly used for washing and painting of airplane sections. Workers in this area washed airplane sections with a solution containing methyl isobutyl ketone to prepare the sections for painting. Wastewater and overspray were washed into one of three concrete trenches, which ran north to south through the painting area. The trenches conveyed the solution to sumps located on the exterior of the southern side of Building 14-01, near the southwestern corner of the building. The waste was pumped from the sumps to two aboveground storage tanks (ASTs) located in the western yard of Building 14-01 via underground piping. The potential release of waste solution to the subsurface soil and groundwater from the former washdown system is considered a *recognized environmental condition*.
- Copper brush plating was previously conducted in the southwestern portion of Building 14-01. Waste plating solution was collected in a sump (discussed below) then conveyed to a 5,000-gallon (gal) AST located in the western yard of Building 14-01 via underground piping. The potential release of waste solution to the subsurface soil and groundwater from the copper plating operation is considered a *recognized environmental condition*.
- An aqueous degreaser is located in the southwestern portion of Building 14-01. The degreaser has been out of use since about 2001. A sign on the degreaser indicates that Daraclean 212, a non-hazardous substance, was used as the cleaning solution; however, it is possible that chlorinated solvents were used previously. Pumps and other equipment associated with the degreaser are located in a separate mechanical room to the south of the degreaser. A sump is located within the mechanical room. Liquid was observed in the sump

at the time of the site reconnaissance. Labels on piping and equipment within the mechanical room indicate that the sump is associated with a brush plating system that is no longer in operation. The sump and associated piping may have been converted for use associated with the aqueous degreaser. The potential release of degreaser solution to subsurface soil and groundwater is considered a *recognized environmental condition*.

- A 500-gal diesel underground storage tank (UST) was removed from the western side of Building 14-02. There are no data available regarding the condition of subsurface soil in the area of the 500-gal diesel UST. The former presence of a petroleum UST on the subject property, and the lack of sampling data, is a *recognized environmental condition*.
- A release of hydraulic oil from a holding tank associated with an oil/water separator located in the hydraulic test pad area (eastern yard of Building 14-03) was reported in 1992. The oil/water separator, holding tank, and associated piping were removed in 1995. Approximately 900 tons of petroleum-impacted soil were excavated from the area surrounding the oil/water separator and holding tank; however, there is no information available regarding the condition of subsurface soil and groundwater in the area of the excavation. The release of petroleum hydrocarbons to the subsurface soil, and the lack of confirmation sampling data, is a *recognized environmental condition*.
- Dark staining was observed on the gravel surface along the northern wall of the electrical substation (Building 14-22) located at the southeastern corner of the subject property, which may be indicative of a release of petroleum from the substation. The potential release of petroleum from the substation is a *recognized environmental condition*.

The following additional *recognized environmental conditions* were identified associated with the adjacent or surrounding properties:

- Impacts to soil and groundwater have been identified at the former PACCAR property (8801 East Marginal Way South) located adjacent to the south of the subject property. Impacts to sediment and surface water are also suspected by the Washington State Department of Ecology (Ecology) to be present. The contaminants of concern consist of petroleum products, phenolic compounds, non-halogenated solvents, halogenated organic compounds, and metals. The current status of this site is not known. The potential exists for this site to impact the subject property and is considered a *recognized environmental condition*.
- Arsenic has been detected in soil and groundwater at concentrations greater than the applicable MTCA cleanup levels at the Boeing Isaacson site, located adjacent to the north of the subject property. Remedial activities, including excavation and soil stabilization, have been conducted at this site; however, based on available information, soil containing concentrations of arsenic greater than the cleanup level has been left in place and may be acting as a continual source of arsenic to groundwater. The potential for this site to impact the subject property is a *recognized environmental condition*.

Boeing conducted a Phase II ESA to document current conditions at the subject property and further assess the potential for conditions of environmental concern. The sampling locations for the Phase II ESA were selected based on the findings of the Phase I ESA and a request from Boeing to address standard building considerations in the event of property divestitures (e.g., air compressor line sampling). Sampling was also conducted in two areas of the subject property where no specific recognized

environmental conditions were identified, but that may be of concern to potential purchasers (hazardous materials storage sheds and transformers north of Building 14-02).

The Phase II ESA was conducted in accordance with the work plan (Landau Associates 2008b). In addition to the analytes identified in the work plan, selected samples were analyzed for semivolatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs) to provide information on all chemicals of concern identified in the Early Action Area 6 (which includes the Boeing Thompson property) Source Control Action Plan report (Ecology 2008). The following sections describe the field investigation and present the investigation results.

## **2.0 FIELD INVESTIGATION**

The soil and groundwater investigation and sump sampling were completed at the subject property November 3 through November 6, 2008. Sampling of the compressed air system was conducted on November 21, 2008. The following sections summarize field activities associated with soil and groundwater sampling and additional investigation activities. Specific information regarding field procedures and sampling methodology is presented in Appendix A.

### **2.1 SOIL AND GROUNDWATER INVESTIGATION**

The soil and groundwater investigation included 32 direct-push borings located in areas of potential concern identified in the Phase I ESA. The sampling locations are shown on Figure 2. Thirty-four (34) soil and 11 groundwater samples were collected from the subject property for analysis by Analytical Resources, Inc. laboratory in Tukwila, Washington. The sampling areas are described in the following sections. Laboratory analytical methods are listed in Tables 1 and 2.

Boeing requested that Landau Associates complete a round of groundwater sampling from existing wells on the subject property and the adjacent Boeing Isaacson property. The sampling was completed in February 2009, as described in Section 2.1.7.

#### **2.1.1 FORMER WASHDOWN AREA**

Twenty-one (21) soil borings were advanced in the area of the former washdown system: nine locations in the area of the former system trenches inside Building 14-01 (TDP-5 to TDP-13), six locations in the area of the former system sumps on the southern side of Building 14-01 (TDP-1 to TDP-4, TDP-25, and TDP-26), and six locations in the area of the former system piping and aboveground storage tanks on the western side of Building 14-01 (TDP-14 to TDP-19). In accordance with the work plan, soil borings in the area of the former washdown system and degreaser were advanced to depths ranging from 8 ft to 16 ft below ground surface (BGS), except where refusal was encountered (see below).

Soil samples were collected from each of the 21 direct-push borings in this area and groundwater samples were collected from 8 of the borings (TDP-1, TDP-7, TDP-8, TDP-11, TDP-16, TDP-18, TDP-25, and TDP-26). Indications of impact were not observed during field screening, therefore, in accordance with the work plan, soil samples collected from soil borings inside the building were generally collected from below the depth of the bottom of the former trench system (approximately 6 ft BGS). Soil samples from borings advanced on the southern side of Building 14-01 were collected from depths ranging from 4 ft to 9 ft BGS. Refusal was encountered in three of the borings at depths ranging from 6 ft

to 7 ft BGS; therefore, these borings did not reach the depth of the former sumps (approximately 9 ft BGS). Soil samples collected from borings advanced on the western side of Building 14-01 were generally collected from below the depth of the former piping system (approximately 4 ft BGS).

Soil and groundwater samples collected from borings in this area were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and metals. In addition, soil and groundwater samples collected from selected direct-push borings (TDP-1, TDP-7, TDP-8, TDP-11, TDP-16, TDP-18, TDP-25, and TDP-26) were analyzed for SVOCs, polycyclic aromatic hydrocarbons (PAHs; groundwater samples only), and PCBs.

### **2.1.2 HYDRAULIC OIL RELEASE AREA**

Two soil borings (TDP-31 and TDP-32) were advanced in the hydraulic oil release area, northeast of Building 14-03. Soil samples were collected from both of the direct-push borings in this area and a groundwater sample was collected from TDP-31. In accordance with the work plan, soil samples were collected from the capillary fringe zone, approximately 6 inches above the top of the water table.

Soil and groundwater samples collected from borings in this area were analyzed for VOCs, TPH, and metals. In addition, the soil and groundwater samples collected from TDP-31 were analyzed for SVOCs, PAHs (groundwater sample only), and PCBs.

### **2.1.3 HAZARDOUS MATERIALS SHEDS**

Four soil borings (TDP-27 through TDP-30) were advanced in the area of the hazardous materials sheds, south and southeast of Building 14-03. Soil samples were collected from each of the direct-push borings in this area and groundwater samples were collected from two locations (TDP-28 and TDP-29). In accordance with the work plan, soil samples were collected from the capillary fringe zone, approximately 6 inches above the top of the water table.

Soil and groundwater samples collected from borings in this area were analyzed for VOCs, TPH, and metals. In addition, the soil and groundwater samples collected from TDP-28 and TDP-29 were analyzed for SVOCs, PAHs (groundwater samples only), and PCBs.

### **2.1.4 FORMER STORAGE TANKS**

One soil boring (TDP-24) was advanced in the area of the former heating oil and diesel USTs on the western side of Building 14-02. In accordance with the work plan, the soil sample was collected from the capillary fringe zone, approximately 6 inches above the top of the water table. The soil sample collected from this area was analyzed for TPH.

Groundwater samples were not collected from this area. Landau Associates attempted to collect samples from existing monitoring wells located on the western side of Building 14-02 (TH-MW-1 and TH-MW-2); however, there was not a sufficient quantity of water in the wells to collect samples.

### **2.1.5 TRANSFORMERS**

Two soil borings (TDP-22 and TDP-23) were advanced in the area of the transformers on the northern side of Building 14-02. In accordance with the work plan, soil samples collected in this area were collected from the upper 4-ft interval. The soil samples collected from this area were analyzed for TPH, metals, and PCBs. Groundwater samples were not collected from this area.

### **2.1.6 SUBSTATION – BUILDING 14-22**

Two soil borings (TDP-20 and TDP-21) were advanced in the area of the electrical substation located near the southeastern corner of the subject property. In accordance with the work plan, soil samples collected in this area were collected from the upper 4-ft interval. The soil samples collected from this area were analyzed for TPH, metals, and PCBs. Groundwater samples were not collected from this area.

### **2.1.7 GROUNDWATER SAMPLES FROM EXISTING MONITORING WELLS**

Groundwater samples were collected from eight existing monitoring wells located on or near the subject property (I-203, I-205, I-206, PZ-2, PZ-4, PZ-6, PZ-7, and PZ-8). Samples were collected using low-flow sampling methodologies. Groundwater samples collected from existing monitoring wells were analyzed for VOCs, TPH, metals, SVOCs, carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and PCBs.

## **2.2 OTHER AREAS OF INVESTIGATION**

At the request of Boeing, Landau Associates collected a water sample from a sump located in the southwestern portion of Building 14-01 and collected wipe samples from the compressed air system. The results of these investigations are presented in the following sections.

### **2.2.1 SUMP SAMPLING**

One water sample (TH-SUMP) was collected from the sump located in the southwestern portion of Building 14-01. The sump is associated with the former brush plating operations. The water sample

was collected using a peristaltic pump and dedicated tubing and was analyzed for VOCs, TPH, and metals.

### **2.2.2 COMPRESSED AIR SYSTEM SAMPLING**

Wipe samples were collected from the outside surface of each of the two air compressors located in Building 14-02 (COMP1-WIPE and COMP2-WIPE) and from inside 11 quick-connect ports located throughout the compressed air system (LINE1-WIPE through LINE11-WIPE) in Buildings 14-01, 14-14, and 14-02. The wipe samples were analyzed for PCBs.

## **3.0 INVESTIGATION RESULTS**

In order to evaluate soil and groundwater quality at the subject property, physical observations of the soil and groundwater encountered during exploration were documented and soil from each exploration was screened for VOCs using a photoionization detector (PID). In addition, soil samples from each direct-push boring location and groundwater samples from selected locations were submitted to ARI laboratory for chemical analysis. This section presents the results of the physical observations and chemical analyses.

### **3.1 PHYSICAL OBSERVATIONS AND FIELD-SCREENING RESULTS**

Physical observations were documented by Landau Associates personnel during the soil and groundwater investigation. Observations included soil lithology, depth to groundwater, presence of sheen on the soil or at the water table, odor, and visible soil staining. In addition, soil samples were screened for VOCs using a PID. These observations are documented in the soil boring logs presented in Appendix B and summarized below.

#### **3.1.1 SOIL LITHOLOGY AND DEPTH TO GROUNDWATER**

The 32 soil borings advanced at the subject property generally encountered fine to coarse sand with varying silt content. Generally, fill material (including debris in some locations) was encountered from the surface to depths ranging from 2 ft to 14.5 ft BGS and was underlain by native material, which was characterized by a higher silt content than the fill material. The following observations were made during the soil and groundwater investigation:

- Borings TDP-2 through TDP-4 encountered refusal at depths ranging from 6 ft to 7 ft BGS due to the presence of a concrete slab. White crushed rock was encountered in each of these borings at depths ranging from 3 ft to 6 ft BGS.
- Debris including wood and brick was encountered at depths ranging from 6 ft to 15 ft BGS in borings TDP-13, -17, -18, -20, and -24.
- A layer of organic matter was encountered at depths ranging from 11 ft to 13 ft BGS in borings TDP-28 through TDP-30.
- Groundwater was encountered at depths ranging between 12 ft to 14 ft BGS.

#### **3.1.2 PRESENCE OF SHEEN, ODOR, AND/OR STAINING**

Visual or olfactory evidence of contamination was observed in samples retrieved from 1 of the 32 soil borings. Petroleum odor and sheen were noted at a depth of 13 ft BGS at TDP-31 (hydraulic oil

release area). This corresponds to the depth of the water table at this location. An odor of decomposing organic material was noted in soil samples retrieved from TDP-5 (1 ft to 5 ft BGS), TDP-16 (3 ft to 15 ft BGS), TDP-17 (1 ft to 7 ft BGS), TDP-22 (6 ft to 8 ft BGS), and TDP-30 (10 ft to 15 ft BGS).

### **3.1.3 FIELD-SCREENING RESULTS**

Soil from each 5-ft sample interval from each boring was screened using a PID. PID screening results are presented on the soil boring logs in Appendix B and are summarized as follows:

- In the area of the former washdown system, PID readings ranged from 0 parts per million (ppm) to 12.8 ppm.
- In the area of the previous hydraulic oil release, a PID reading of 1.2 ppm was recorded at a depth of 12.5 ft BGS. This very low PID reading is not likely to indicate the presence of VOCs.
- VOCs were not detected during field screening with the PID in samples collected from the area of the transformers, substation, hazardous materials storage sheds, or former tanks.

## **3.2 ANALYTICAL RESULTS**

Laboratory analytical reports are included in Appendix C. The laboratory data were validated in accordance with the work plan (Landau Associates 2008b) and were determined to be acceptable for use. The soil and groundwater analytical results for detected compounds are presented in Tables 1 and 2, respectively. Cleanup levels have not been developed for the Thompson property. To provide context for evaluation of the analytical results, the results were compared to standard Washington State Model Toxics Control Act (MTCA) Method C formula values for direct human contact (soil only); MTCA Method B (groundwater) and Method C (soil) levels for protection of fresh surface water and for protection of marine surface water; and PACCAR Potential Cleanup Standards proposed by PACCAR in its Interim Action Work Plan (AMEC 2008), for the adjacent property to the south. The most stringent of these values for the constituents detected at the Thompson property, usually those for protection of fresh surface water, are used as screening levels for comparison with the analytical results. The results of the soil and groundwater investigation are discussed by area in the following sections.

### **3.2.1 FORMER WASHDOWN SYSTEM**

Analytical results for this area are summarized as follows:

- Trichloroethene (TCE) was detected in one soil sample (TDP-26) at a concentration of 66 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), which is greater than the screening level ( $17 \mu\text{g}/\text{kg}$ ). As is shown on Figure 2, this soil boring is located along the southern property boundary. TCE was detected in soil samples collected from two other locations in this area (TDP-1 and

TDP-25) at a concentration of 6.2 µg/kg, and was not detected in any other soil samples collected from this area at concentrations greater than the laboratory reporting limits. No other VOCs were detected in this area at concentrations greater than the screening levels.

- Vinyl chloride was detected in five of eight groundwater samples collected from the area of the former washdown system (TDP-7, TDP-8, TDP-16, TDP-25, and TDP-26) at concentrations greater than the screening level [concentrations exceeding the screening level range from 0.2 micrograms per liter (µg/L) to 140 µg/L]. The concentration detected in the sample collected from TDP-26 (140 µg/L), located near the Thompson/PACCAR property boundary, is more than 75 times greater than the concentrations detected at the other locations in this area. Other chlorinated solvents [cis-1,2-dichloroethylene (cis-1,2-DCE), 1,1-dichloroethylene (1,1-DCE), tetrachloroethylene (PCE), and TCE] were detected in the groundwater samples collected from TDP-25 and TDP-26 at concentrations greater than the screening levels. With the exception of cis-1,2-DCE, which was detected at a concentration well below the screening level at TDP-8, these constituents were not detected in the remaining water samples collected from this area at concentrations greater than the laboratory reporting limits. VOCs detected in groundwater at concentrations greater than the screening levels are shown on Figure 3.
- Metals (arsenic, copper, lead, and mercury) were detected in soil at several locations in the former washdown area at concentrations greater than the screening levels. Lead was detected in the sample collected from TDP-5 at a concentration of 139 mg/kg, which is greater than the screening level, but below the Method A cleanup levels for unrestricted land uses and for industrial properties. Detected concentrations of arsenic that are greater than the screening level ranged from 8 mg/kg to 18 mg/kg (which are all below the Method A cleanup levels for unrestricted land uses and for industrial properties). Detected concentrations of copper that exceed the screening level ranged from 36.6 mg/kg to 97.1 mg/kg. Detected concentrations of mercury that are greater than the screening level ranged from 0.11 mg/kg to 0.23 mg/kg (which are all below the Method A cleanup levels for unrestricted land uses and for industrial properties).
- Arsenic was detected in five of eight groundwater samples collected from this area at concentrations greater than the screening level (detected concentrations that are greater than the screening level ranged from 11.4 µg/L to 128 µg/L). No other metals were detected in groundwater in this area at concentrations greater than the screening levels. Detected concentrations of arsenic in groundwater are shown on Figure 4.
- SVOCs (including PAHs) were not detected in soil in this area at concentrations greater than the screening levels; however, SVOCs were detected in groundwater at concentrations greater than screening levels in four groundwater samples collected from this area. Carbazole was detected in the sample collected from TDP-1 at an estimated concentration of 6.9 µg/L. Bis(2-ethylhexyl)phthalate (BEHP) was detected in three samples at concentrations ranging from 1.3 µg/L to 2.5 µg/L.
- Diesel-range and oil-range petroleum hydrocarbons were detected in soil at nine locations in this area at concentrations greater than the laboratory reporting limits; however, none of the detected concentrations are greater than the screening levels. Petroleum hydrocarbons were not detected in groundwater at concentrations greater than the laboratory reporting limits.
- PCBs were not detected in soil or groundwater at concentrations greater than the laboratory reporting limits in any of the samples from this area.

### 3.2.2 HYDRAULIC OIL RELEASE AREA

Analytical results for this area are summarized as follows:

- Arsenic was detected in one soil sample (TDP-31) at a concentration of 9 mg/kg, which is greater than the screening level, but less than the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties.
- No other constituents were detected in soil at concentrations greater than the screening levels, or in many cases, the laboratory reporting limit.
- BEHP (3.0 µg/L) and oil-range petroleum hydrocarbons (estimated at 3.2 mg/L) were detected in the water sample collected from this area at concentrations greater than the screening levels.
- No other constituents were detected in groundwater at concentrations greater than the screening levels, or in many cases, the laboratory reporting limit.

### 3.2.3 HAZARDOUS MATERIALS SHEDS

Analytical results for this area are summarized as follows:

- VOCs were not detected in soil or groundwater in this area at concentrations greater than the screening levels.
- Arsenic was detected in two soil samples (TDP-29 and TDP-30) at concentrations of 8 mg/kg and 13 mg/kg, respectively, which are greater than the screening level. Mercury was detected in one soil sample (TDP-30) at a concentration of 0.17 mg/kg, which is greater than the screening level. The detected concentrations of arsenic and mercury in soil are less than the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties. Arsenic was detected in one groundwater sample (TDP-28) collected from this area at a concentration of 13.0 µg/L, which is greater than the screening level.
- SVOCs were not detected in soil in this area at concentrations greater than the laboratory reporting limits. BEHP (3.8 µg/L) was detected in one groundwater sample (TDP-28) collected from this area at a concentration greater than the screening level.
- TPH and PCBs were not detected at concentrations greater than the laboratory reporting limits in soil or groundwater samples collected from this area.

### **3.2.4 FORMER STORAGE TANKS**

Contaminants of concern were not detected at concentrations greater than the laboratory reporting limits in the sample collected from this area.

### **3.2.5 TRANSFORMERS**

Analytical results for this area are summarized as follows:

- TPH and PCBs were not detected in soil at concentrations greater than the laboratory reporting limits.
- Mercury was detected in the soil sample collected from TDP-23 at a concentration of 0.11 mg/kg, which is slightly greater than the screening level (0.1 mg/kg), but less than the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties (2 mg/kg).

### **3.2.6 SUBSTATION – BUILDING 14-22**

Analytical results for this area as summarized as follows:

- TPH and PCBs were not detected in soil at concentrations greater than the laboratory reporting limits.
- Metals (cadmium, chromium, copper, and lead) were detected at concentrations greater than the laboratory reporting limits but less than the screening levels.

### **3.2.7 SUMP SAMPLING**

Analytical results for the sump sample are presented in Table 3 and are summarized as follows:

- The VOCs methylene chloride (42 µg/L), toluene (29 µg/L), and styrene (11 µg/L) were detected in the sample at concentrations greater than the laboratory reporting limits.
- Diesel-range (estimated at 2.5 mg/L) and oil-range (estimated at 62 mg/L) petroleum hydrocarbons were detected in the sample at concentrations greater than the laboratory reporting limits.
- The metals arsenic (23.8 µg/L), cadmium (58 µg/L), chromium (510 µg/L), copper (1,950 µg/L), and lead (6 µg/L) were detected in the sample at concentrations greater than the laboratory reporting limits.

The results of the sump sampling will be used by Boeing to characterize the sump contents for disposal.

### **3.2.8 COMPRESSED AIR SYSTEM SAMPLING**

Analytical results for the wipe samples are presented in Table 4 and are summarized as follows:

- PCBs (specifically, Aroclor 1254) were detected in both of the wipe samples collected from the surface of the air compressors in Building 14-02 at concentrations greater than the laboratory reporting limits.
- PCBs were not detected in any of the 11 wipe samples collected from the compressed air system quick-connect ports at concentrations greater than the laboratory reporting limits.

### 3.2.9 GROUNDWATER SAMPLES FROM EXISTING MONITORING WELLS

Analytical results for groundwater samples collected from existing monitoring wells on or near the subject property are presented in Table 5 and are summarized as follows:

- Arsenic was detected in samples collected from seven of the eight existing monitoring wells at concentrations ranging from 5.0 µg/L to 575 µg/L (Figure 4). Arsenic was detected at concentrations less than the screening level in the sample collected from PZ-7 (5.0 µg/L). Arsenic was not detected at a concentration greater than the laboratory reporting limit in the sample collected from PZ-8. The highest concentration of arsenic was detected in the sample collected from I-206 (575 µg/L), followed by the concentration in the sample collected from PZ-6 (505 µg/L). These wells are located near the southwestern corner of the subject property and along the northern property boundary in the western one-third of the subject property, respectively. Arsenic concentrations in groundwater are generally higher in the western half of the subject property than the eastern half. No other metals were detected in groundwater samples collected from existing monitoring wells at concentrations greater than the laboratory reporting limits.
- Vinyl chloride was detected in the sample collected from I-206 at a concentration of 1.8 µg/L (Figure 3), which is greater than the screening level (0.025 µg/L). Vinyl chloride was not detected at concentrations greater than the laboratory reporting limits in any of the other samples collected from existing monitoring wells.
- Other VOCs (acetone; cis-1,2-dichloroethene; trans-1,2-dichloroethene; 1,1-dichloroethane; 1,2-dichloropropane; and carbon disulfide) were detected in one or more groundwater samples collected from existing monitoring wells at concentrations greater than the laboratory reporting limit but less than the screening levels. Detected concentrations of chlorinated solvents in groundwater are shown on Figure 3.
- SVOCs (including cPAHs), PCBs, and petroleum hydrocarbons were not detected in groundwater samples from existing monitoring wells at concentrations greater than the laboratory reporting limits.

## 4.0 SUMMARY AND CONCLUSIONS

The objective of the Phase II investigation was to evaluate and document the soil and groundwater quality in areas of the subject property potentially impacted by Boeing operations as part of Boeing's risk management and due diligence activities. The sampling locations for the Phase II ESA were selected based on the findings of the Phase I ESA and a request from Boeing to address standard building considerations in the event of property divestiture (sump sampling and compressed air system sampling). Sampling was also conducted in two areas of the subject property where no specific recognized environmental conditions were identified, but that may be of concern to potential purchasers (hazardous materials storage sheds and transformers north of Building 14-02).

Thirty-two soil borings were advanced at the subject property. One water sample was collected from a sump located in Building 14-01 and 13 wipe samples were collected from the compressed air system.

The results of the soil and groundwater investigation are summarized below by area:

- **Former Washdown System:** Chlorinated solvents were detected in soil (TCE) and groundwater (TCE; vinyl chloride; cis-1,2-DCE; 1,1-DCE; and PCE) in the area of the former washdown system at concentrations greater than the screening levels. The highest concentrations of chlorinated solvents in soil and groundwater were detected in samples from along the southern property boundary. In the case of vinyl chloride, the concentration detected along the property boundary was more than 75 times greater than the concentrations detected in other samples in this area. The data suggest an offsite source (south of the subject property) of chlorinated solvents in this area.

Metals were detected in soil and groundwater in this area and SVOCs (carbazole and BEHP) were detected in groundwater in this area at concentrations greater than the screening levels. Detected concentrations of metals in soil are greater than the screening levels, but are less than the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties (there is no MTCA Method A cleanup level for copper). Arsenic is the only metal detected in groundwater at concentrations greater than the screening level. The sources of the arsenic, carbazole, and BEHP are not known.

- **Hydraulic oil release area:** Arsenic was detected in soil at a concentration greater than the screening level, but less than the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties. BEHP and oil-range TPH were detected in groundwater at concentrations greater than the screening levels. The source of the TPH in groundwater is likely the former hydraulic oil release in this area. The source of the BEHP is not known.
- **Hazardous materials sheds:** Metals were detected in soil at concentrations greater than the screening levels, but less than the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties (with the exception of copper; there is no MTCA Method A cleanup level for copper). Arsenic and BEHP were detected in groundwater in this area at concentrations greater than the screening levels. The sources of these constituents are not known. This area is located within the estimated former boundary of Slip 5. It is possible that impacted fill material was placed in this area.

- **Former storage tanks:** Constituents of concern were not detected in this area at concentrations greater than the screening levels.
- **Transformers:** Mercury was detected in one sample at a concentration slightly greater than the screening level, but less than the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties.
- **Substation – Building 14-22:** Constituents of concern were not detected in this area at concentrations greater than the screening levels.
- **Sump Sampling:** VOCs, TPH, and metals were detected in the sump water sample. The analytical results will be used by Boeing to characterize the sump water for disposal prior to decommissioning the sump.
- **Compressed Air System:** PCBs were detected in wipe samples collected from the surface of two air compressors located in Building 14-02. PCBs were not detected in any of the wipe samples collected from quick-connect ports throughout the compressed air system. The data suggest that PCB-containing oil may have been used in the compressed air system at one time.
- **Groundwater Samples from Existing Monitoring Wells:** Arsenic was detected in six of eight groundwater samples collected from existing monitoring wells at concentrations greater than the screening levels. The highest concentrations of arsenic were detected in wells located near the southwestern corner of the subject property (I-206) and along the northern boundary in the western one-third of the subject property (PZ-6), respectively. Arsenic concentrations in groundwater are generally higher in the western half of the subject property than in the eastern half. A source of arsenic has not been identified on the subject property.

Vinyl chloride was detected at a concentration greater than the screening level in one groundwater sample (I-206). Vinyl chloride was not detected at concentrations greater than the laboratory reporting limits in any of the other samples collected from existing monitoring wells.

- **Property-Wide Groundwater:** The results of the groundwater sampling from existing monitoring wells, combined with the results of sampling from direct-push locations on the subject property (specifically, samples collected from TDP-25 and TDP-26), suggest an offsite source (south of the subject property) of chlorinated solvents to groundwater in the southwestern portion of the subject property. Chlorinated solvents have been identified in groundwater at the former PACCAR property, located adjacent to the south of the subject property (AMEC 2008). Based on modeling completed by AMEC (consultant for PACCAR), there is potential that the chlorinated solvent plume extends into groundwater on the subject property. Figures and data tables from the Draft Interim Action Work Plan for this property are presented in Appendix D.

Arsenic was detected at concentrations greater than the screening levels in groundwater samples collected from direct-push borings and existing monitoring wells across the subject property. An onsite source of arsenic impact to groundwater was not identified during this investigation.

BEHP was detected at concentration greater than the screening levels in groundwater samples collected from direct-push borings in several areas of the subject property. BEHP was not

detected in any of the samples collected from existing monitoring wells at concentrations greater than the laboratory reporting limits. The source of BEHP in groundwater is not known.

Carbazole (former washdown system) and oil-range petroleum hydrocarbons (former hydraulic oil release area) were each detected at a concentration greater than the screening level in one groundwater sample collected from a direct-push boring. Neither of these constituents was detected at a concentration greater than the laboratory reporting limit in groundwater samples collected from existing monitoring wells. The source of the oil-range petroleum hydrocarbons is likely the former hydraulic oil release. The source of the carbazole is not known.

Based on the data available, limited impact to soil has been identified at the subject property. TCE was detected at a concentration greater than the screening level in one soil sample in the area to the south of the former washdown system, along the southern property boundary. Metals were detected in soil at concentrations greater than the screening levels in several areas across the subject property. With the exception of copper, for which there is no Method A soil cleanup level, the detected concentrations of metals are below the MTCA Method A cleanup levels for unrestricted land uses and for industrial properties. No other contaminants of concern were detected in soil at concentrations greater than the screening levels.

Impact to groundwater was identified in three areas of the subject property. VOCs (chlorinated solvents) were detected in groundwater at concentrations greater than the screening levels in the area of the former washdown system and the southwestern corner of the subject property. As indicated previously, the highest concentrations were detected in samples collected from along the southern property boundary. These data, combined with available data for the former PACCAR property located adjacent to the south of the subject property, suggest a potential offsite source of these constituents, to the south of the subject property. TPH was detected at a concentration greater than the screening level in one groundwater sample collected from the former hydraulic oil release area and is likely the result of the former release in this area. Arsenic was detected at concentrations greater than the screening level in the area of the former washdown system, in the area of the hazardous materials sheds, and in six of the eight groundwater samples collected from existing monitoring wells located throughout the subject property. The source of the arsenic is not known. Carbazole was detected at a concentration greater than the screening level in one groundwater sample in the area of the former washdown system. The source of this constituent is not known. BEHP was detected at concentrations greater than the screening level in the area of the former washdown system, the hydraulic oil release, and the hazardous materials storage sheds. The source of BEHP is not known. BEHP was not detected in soil or groundwater samples collected from existing monitoring wells at the subject property at concentrations greater than the laboratory reporting limits.

## 5.0 USE OF THIS REPORT

This Phase II ESA Report has been prepared for the exclusive use of Boeing for specific application to the Thompson property in Tukwila, Washington. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

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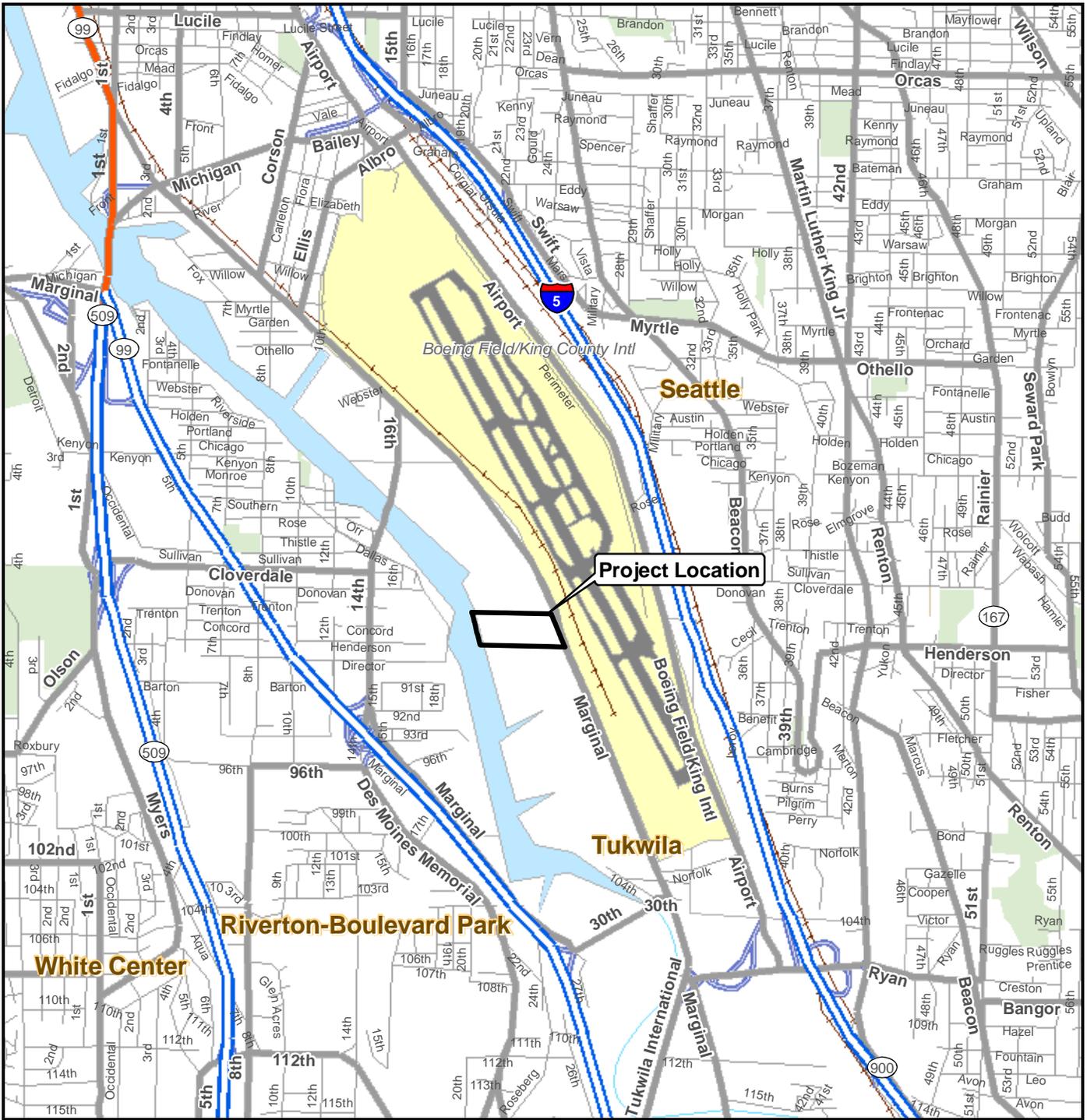
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Data Source: ESRI 2006



**Boeing Thompson Property  
Tukwila, Washington**

**Vicinity Map**

**Figure  
1**

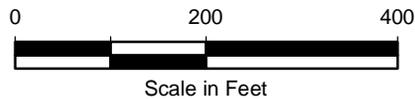




**Legend**

- Soil Sample Location
- Soil and Groundwater Sample Location
- ⊕ Existing Monitoring Well
- Approximate Location of Former Slip 5

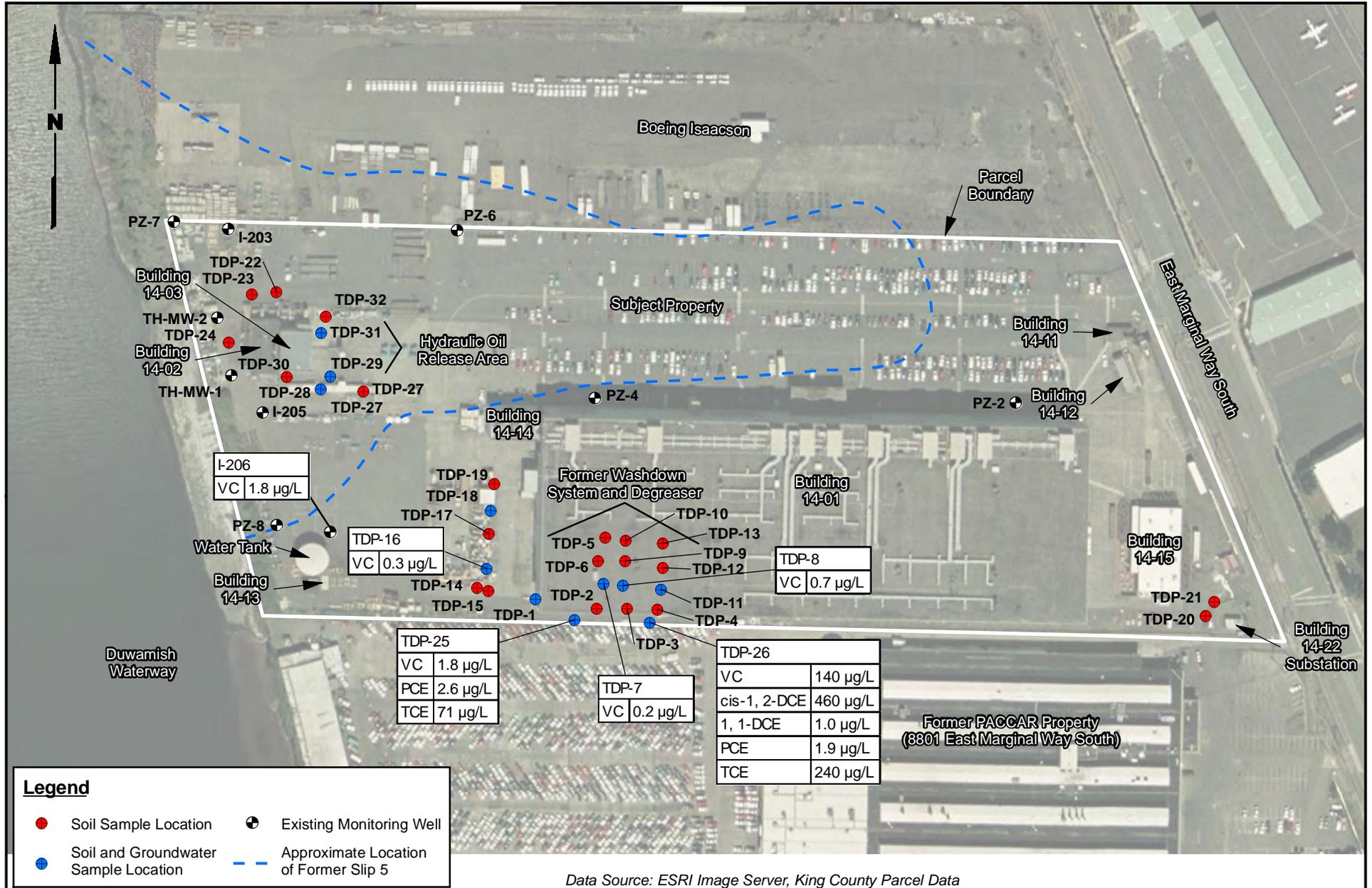
Data Source: ESRI Image Server, King County Parcel Data



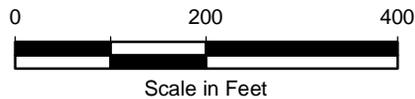
Boeing Thompson Property  
Tukwila, Washington

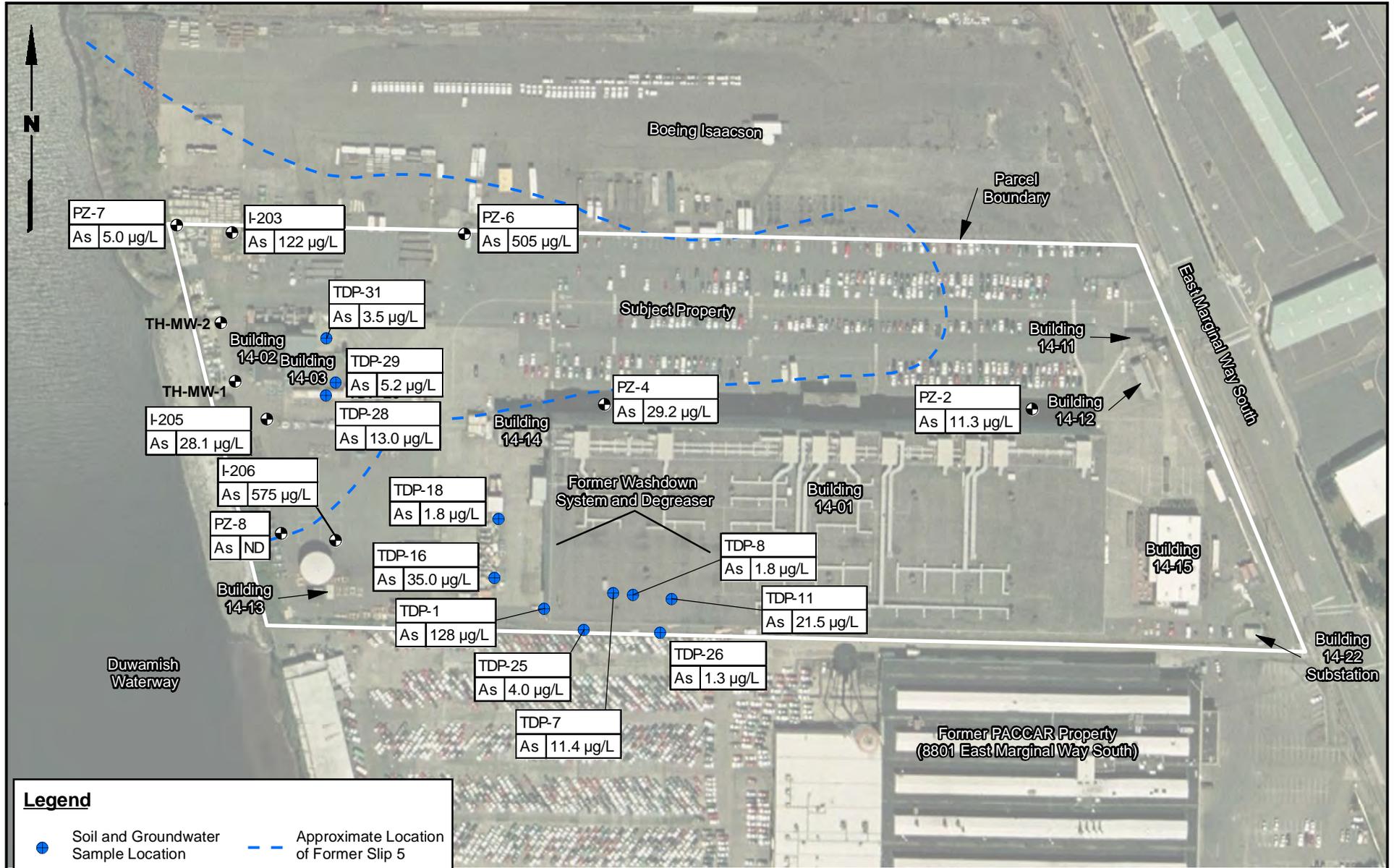
**Site and Phase II ESA  
Sample Location Plan**

Figure  
**2**



Data Source: ESRI Image Server, King County Parcel Data

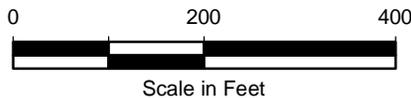




**Legend**

- Soil and Groundwater Sample Location
- ⊕ Existing Monitoring Well
- - - Approximate Location of Former Slip 5
- ND Not Detected

Data Source: ESRI Image Server, King County Parcel Data



Boeing Thompson Property  
Tukwila, Washington

**Detected Concentrations of Arsenic in Groundwater**

Figure  
**4**

**TABLE 1  
SUMMARY OF CONSTITUENTS DETECTED IN SOIL  
BOEING THOMPSON SITE  
TUKWILA, WASHINGTON**

Location: Lab ID: Date Collected:	PACCAR Interim Action Work Plan Cleanup Levels (d)	Method C Direct Contact	Method C Protection of Marine Surface Water	Method C Protection of Fresh Surface Water	Former Washdown System Piping South of 14-01						Former Washdown System Piping Inside 14-01					
					TDP1-9 NX93A 11/3/2008	TDP2-5 NX93B 11/3/2008	TDP3-5 NX93C 11/3/2008	TDP4-4 NX93D 11/3/2008	TDP25-9 NY44J 11/5/2008	TDP26-8 NY64A 11/6/2008	TDP5-5 NX93E 11/3/2008	TPD6-8 NY07A 11/4/2008	TDP7-8 NY07B 11/4/2008	TDP8-8 NY07C 11/4/2008	TDP9-8 NY07D 11/4/2008	TDP10-7 NY07P 11/4/2008
<b>VOLATILES (µg/kg)</b>																
<b>Method SW8260B</b>																
Methylene Chloride		18,000,000	2,600	20	7.7	1.6 U	1.9 U	2.0 U	1.3 U	1.4 U	2.1 U	2.7 U	1.6 U	2.3 U	1.3 U	2.5 U
Acetone		350,000,000	-	3,200	280	9.2	9.0	22	18	39	45	59	44	94	50	120
Carbon Disulfide		350,000,000	-	5,600	7.7	0.8 U	1.0 U	1.0 U	0.7 U	0.7 U	1.1 U	9.8	1.0	4.4	2.3	26
1,1-Dichloroethane		700,000,000	-	8,700	1.6	0.8 U	1.0 U	1.0 U	0.7 U	0.7 U	1.1 U	1.4 U	0.8 U	1.1 U	0.6 U	1.2 U
trans-1,2-Dichloroethene		70,000,000	540,000	540	2.6	0.8 U	1.0 U	1.0 U	0.7 U	0.7 U	1.1 U	1.4 U	0.8 U	1.1 U	0.6 U	1.2 U
cis-1,2-Dichloroethene		35,000,000	-	350	74	0.8 U	1.0 U	1.0 U	0.7 U	5.1	1.1 U	1.4 U	0.8 U	1.5	0.6 U	1.2 U
2-Butanone		1,000,000,000 (e)	-	19,600	53	4.1 U	4.8 U	5.1 U	3.3 U	4.2	7.6	9.8	7.0	12	9.9	25
Trichloroethene		1,100,000	200	16	6.2	0.8 U	1.0 U	1.0 U	6.2	66	1.1 U	1.4 U	0.8 U	1.1 U	0.6 U	1.2 U
Benzene		2,400,000	290	7	1.5	0.8 U	1.0 U	1.0 U	0.7 U	0.7 U	1.1 U	1.4 U	0.8 U	4.3	0.6 U	1.2 U
Tetrachloroethene		240,000	40	7	1.2 U	0.8 U	1.0 U	1.0 U	0.7 U	1.0	1.1 U	1.4 U	0.8 U	1.1 U	0.6 U	1.2 U
Toluene		280,000,000	109,000	4,600	1.2 U	0.8 U	1.0 U	1.0 U	0.7 U	0.7 U	1.1 U	1.4 U	0.8 U	2.0	0.6 U	1.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1,000,000,000 (e)	-	10,500,000	2.4 U	1.6 U	1.9 U	2.0 U	1.3 U	1.4 U	2.1 U	2.7 U	1.6 U	2.3 U	1.3 U	2.5 U
<b>SEMIVOLATILES (µg/kg)</b>																
<b>Method SW8270D</b>																
4-Methylphenol		-	-	200	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	170	NA	NA
Naphthalene		70,000,000	138,000	4,500	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	260 J	NA	NA
2-Methylnaphthalene		14,000,000	-	-	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	64 J	NA	NA
Acenaphthylene		-	-	-	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	71 J	NA	NA
Phenanthrene	70,000,000 / 2,000	-	-	-	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	160 J	NA	NA
Fluoranthene		140,000	89,000	88,000	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	100 J	NA	NA
Pyrene		110,000,000	3,500,000	650,000	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	110 J	NA	NA
Chrysene	17,980,000 / 85	-	140	22	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	61 U	NA	NA
Benzo(b)fluoranthene	1,798,000 / 289	-	440	69	62 U	NA	NA	NA	64 U	59 U	NA	NA	63 U	61 U	NA	NA
Total cPAHs		18,000	-	-	ND	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA
<b>PETROLEUM HYDROCARBONS (mg/kg)</b>																
<b>NWTPH-HCID</b>																
Diesel-Range Organics					50 U	50 U	57	53	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA
Lube Oil-Range Organics					100	100 U	110	110	100	100	100 U	100 U	100 U	100 U	100 U	NA
<b>NWTPH-Dx (mg/kg)</b>																
Diesel-Range Organics		2,000 (a)	2,000 (a)	2,000 (a)	16	19	110	78	61	6.5	NA	NA	NA	NA	NA	NA
Lube Oil-Range Organics		2,000 (a)	2,000 (a)	2,000 (a)	99	95	740	640	340	24	NA	NA	NA	NA	NA	NA
<b>TOTAL METALS (mg/kg)</b>																
<b>Method SW6010B/7471A</b>																
Arsenic		88	7 (b)	7 (b)	9	5 U	6	18	5 U	7	5 U	6 U	6 U	6 U	6 U	NA
Cadmium		3,500	1.2	1 (b)	0.4	0.2 U	0.2	1.0	0.2 U	0.4	0.2 U	0.2 U	0.2 U	0.2	0.2 U	NA
Chromium		1,000,000 (c)(e)	1,000,000 (e)	2,000	12.3	21.8	21.2	29.0	35.8	20.8	8.8	13.6	16.5	13.8	15.1	NA
Copper	129,500 / 19.6	130,000	36 (b)	36 (b)	31.6	23.2	24.8	67.1	14.3	36.6	10.8	20.5 J	20.2	21.6	17.7	NA
Lead	1,000 / 812	1,000 (a)	1,600	110	17	2	139	106	2	12 J	2 U	2 U	2	7	2 U	NA
Mercury		1,100	0.1 (b)	0.1 (b)	0.06	0.05 U	0.06	0.20	0.04 U	0.06 U	0.04 U	0.05 U	0.05 U	0.05 U	0.05 U	NA

**TABLE 1  
SUMMARY OF CONSTITUENTS DETECTED IN SOIL  
BOEING THOMPSON SITE  
TUKWILA, WASHINGTON**

Location: Lab ID: Date Collected:	PACCAR Interim Action Work Plan Cleanup Levels (d)	Method C Direct Contact	Method C Protection of Marine Surface Water	Method C Protection of Fresh Surface Water	Former Washdown System Piping Inside 14-01					Former Washdown System Piping and ASTs West of 14-01					
					TDP10-8 NY07E 11/4/2008	TDP11-7 NY07F 11/4/2008	TDP11-9 NY07G 11/4/2008	TDP12-7 NY07H 11/4/2008	TDP13-7 NY07J 11/4/2008	TDP14-4 NY07K 11/4/2008	TDP15-4 NY07L 11/4/2008	TDP16-3 NY44A 11/5/2008	TDP17-4 NY44B 11/5/2008	TDP18-4 NY44C 11/5/2008	TDP19-4 NY44D 11/5/2008
<b>VOLATILES (µg/kg)</b>															
<b>Method SW8260B</b>															
Methylene Chloride		18,000,000	2,600	20	1.3 U	1.8 U	1.3 U	2.5 U	2.2 U	2.2 U	1.6 U	1.4 U	2.0 U	2.1 U	2.0 U
Acetone		350,000,000	-	3,200	<b>44</b>	<b>97</b>	<b>23</b>	<b>86</b>	<b>51</b>	<b>25</b>	<b>31</b>	<b>20</b>	<b>57</b>	<b>22</b>	<b>77</b>
Carbon Disulfide		350,000,000	-	5,600	<b>5.8</b>	<b>22</b>	<b>2.5</b>	<b>8.8</b>	<b>8.5</b>	<b>1.3</b>	0.8 U	0.7 U	<b>5.6</b>	1.1 U	1.0 U
1,1-Dichloroethane		700,000,000	-	8,700	0.7 U	0.9 U	0.6 U	1.2 U	1.1 U	1.1 U	0.8 U	0.7 U	1.0 U	1.1 U	1.0 U
trans-1,2-Dichloroethene		70,000,000	540,000	540	0.7 U	0.9 U	0.6 U	1.2 U	1.1 U	1.1 U	0.8 U	0.7 U	1.0 U	1.1 U	1.0 U
cis-1,2-Dichloroethene		35,000,000	-	350	0.7 U	0.9 U	0.6 U	1.2 U	1.1 U	1.1 U	0.8 U	0.7 U	1.0 U	1.1 U	1.0 U
2-Butanone		1,000,000,000 (e)	-	19,600	<b>7.4</b>	<b>20</b>	<b>4.5</b>	<b>14</b>	<b>7.9</b>	5.5 U	4.0 U	3.5 U	<b>9.0</b>	5.3 U	<b>5.2</b>
Trichloroethene		1,100,000	200	16	0.7 U	0.9 U	0.6 U	1.2 U	1.1 U	1.1 U	0.8 U	0.7 U	1.0 U	1.1 U	1.0 U
Benzene		2,400,000	290	7	0.7 U	0.9 U	0.6 U	1.2 U	1.1 U	1.1 U	<b>2.3</b>	0.7 U	1.0 U	1.1 U	<b>1.3</b>
Tetrachloroethene		240,000	40	7	0.7 U	0.9 U	0.6 U	1.2 U	1.1 U	1.1 U	<b>1.5</b>	0.7 U	1.0 U	1.1 U	1.0 U
Toluene		280,000,000	109,000	4,600	0.7 U	0.9 U	0.6 U	1.2 U	1.1 U	1.1 U	0.8 U	0.7 U	1.0 U	1.1 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1,000,000,000 (e)	-	10,500,000	1.3 U	1.8 U	1.3 U	2.5 U	2.2 U	2.2 U	1.6 U	1.4 U	2.0 U	2.1 U	2.0 U
<b>SEMIVOLATILES (µg/kg)</b>															
<b>Method SW8270D</b>															
4-Methylphenol		-	-	200	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	62 U	NA
Naphthalene		70,000,000	138,000	4,500	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	<b>110 J</b>	NA
2-Methylnaphthalene		14,000,000	-	-	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	62 U	NA
Acenaphthylene		-	-	-	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	62 U	NA
Phenanthrene	70,000,000 / 2,000	-	-	-	NA	NA	60 U	NA	NA	NA	NA	<b>71 J</b>	NA	<b>120 J</b>	NA
Fluoranthene		140,000	89,000	88,000	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	<b>150 J</b>	NA
Pyrene		110,000,000	3,500,000	650,000	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	<b>120 J</b>	NA
Chrysene	17,980,000 / 85	-	140	22	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	<b>91 J</b>	NA
Benzo(b)fluoranthene	1,798,000 / 289	-	440	69	NA	NA	60 U	NA	NA	NA	NA	62 U	NA	<b>76 J</b>	NA
Total cPAHs		18,000	-	-	NA	NA	ND	NA	NA	NA	NA	ND	NA	8.51	NA
<b>PETROLEUM HYDROCARBONS (mg/kg)</b>															
<b>NWTPH-HCID</b>															
Diesel-Range Organics					50 U	NA	50 U	170 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Lube Oil-Range Organics					100 U	NA	<b>100</b>	<b>330</b>	100 U	100 U	100 U	100 U	100 U	100 U	<b>100</b>
<b>NWTPH-Dx (mg/kg)</b>															
Diesel-Range Organics		2,000 (a)	2,000 (a)	2,000 (a)	NA	NA	<b>20</b>	<b>140</b>	NA	NA	NA	NA	NA	NA	<b>23</b>
Lube Oil-Range Organics		2,000 (a)	2,000 (a)	2,000 (a)	NA	NA	<b>130</b>	<b>990</b>	NA	NA	NA	NA	NA	NA	<b>110</b>
<b>TOTAL METALS (mg/kg)</b>															
<b>Method SW6010B/7471A</b>															
Arsenic		88	7 (b)	7 (b)	6 U	NA	5 U	<b>8</b>	10 U	<b>17</b>	<b>9</b>	7	7	<b>12</b>	6 U
Cadmium		3,500	1.2	1 (b)	0.2 U	NA	0.2 U	<b>0.8</b>	0.6 U	<b>0.6</b>	0.2 U	0.3 U	0.3 U	<b>0.6</b>	0.3 U
Chromium		1,000,000 (c)(e)	1,000,000 (e)	2,000	<b>20.7</b>	NA	<b>17.1</b>	<b>20.0</b>	<b>17</b>	<b>24.6</b>	<b>17.3</b>	<b>18.1</b>	<b>21.3</b>	<b>26.1</b>	<b>12.9 J</b>
Copper	129,500 / 19.6	130,000	36 (b)	36 (b)	<b>18.9</b>	NA	<b>24.8</b>	<b>31.3</b>	<b>97.1</b>	<b>36.6</b>	<b>25.7</b>	<b>28.8</b>	<b>34.3</b>	NA	<b>16.4 J</b>
Lead	1,000 / 812	1,000 (a)	1,600	110	2 U	NA	3	<b>13</b>	6 U	<b>18</b>	3	4	<b>5</b>	<b>28</b>	<b>30 J</b>
Mercury		1,100	0.1 (b)	0.1 (b)	0.06 U	NA	0.04 U	<b>0.19</b>	0.06 U	<b>0.13</b>	0.06 U	<b>0.05</b>	<b>0.11</b>	<b>0.23</b>	<b>0.07</b>

**TABLE 1  
SUMMARY OF CONSTITUENTS DETECTED IN SOIL  
BOEING THOMPSON SITE  
TUKWILA, WASHINGTON**

Location: Lab ID: Date Collected:	PACCAR Interim Action Work Plan Cleanup Levels (d)	Method C Direct Contact	Method C Protection of Marine Surface Water	Method C Protection of Fresh Surface Water	Substation (Building 14-22)		Transformers North of 14-02		UST W of 14-02	Hazardous Materials Storage Sheds				Hydraulic Oil Release Area	
					TDP20-3 NY44E 11/5/2008	TDP21-3 NY44F 11/5/2008	TDP22-3 NY44G 11/5/2008	TDP23-3 NY44H 11/5/2008	TDP24-11 NY44I 11/5/2008	TDP27-11 NY64B 11/6/2008	TDP28-11 NY64C (RE) 11/6/2008	TDP29-11 NY64D 11/6/2008	TDP30-11 NY64E 11/6/2008	TDP31-12 NY64F (RE) 11/6/2008	TDP32-11 NY64G 11/6/2008
<b>VOLATILES (µg/kg)</b>															
<b>Method SW8260B</b>															
Methylene Chloride		18,000,000	2,600	20	NA	NA	NA	NA	NA	1.8 U	1.6 U	1.4 U	2.2 U	1.8 U	1.4 U
Acetone		350,000,000	-	3,200	NA	NA	NA	NA	NA	<b>25</b>	<b>48</b>	<b>95</b>	<b>83</b>	<b>29</b>	<b>15</b>
Carbon Disulfide		350,000,000	-	5,600	NA	NA	NA	NA	NA	0.9 U	<b>14</b>	<b>22</b>	<b>22</b>	<b>2.7</b>	<b>0.9</b>
1,1-Dichloroethane		700,000,000	-	8,700	NA	NA	NA	NA	NA	0.9 U	<b>4.4</b>	<b>0.7</b>	<b>1.4</b>	0.9 U	0.7 U
trans-1,2-Dichloroethene		70,000,000	540,000	540	NA	NA	NA	NA	NA	0.9 U	0.8 U	0.7 U	1.1 U	0.9 U	0.7 U
cis-1,2-Dichloroethene		35,000,000	-	350	NA	NA	NA	NA	NA	0.9 U	0.8 U	0.7 U	1.1 U	0.9 U	0.7 U
2-Butanone		1,000,000,000 (e)	-	19,600	NA	NA	NA	NA	NA	4.6 U	<b>8.8</b>	<b>20</b>	<b>16</b>	4.6 U	3.4 U
Trichloroethene		1,100,000	200	16	NA	NA	NA	NA	NA	0.9 U	0.8 U	0.7 U	1.1 U	0.9 U	0.7 U
Benzene		2,400,000	290	7	NA	NA	NA	NA	NA	0.9 U	0.8 U	0.7 U	1.1 U	0.9 U	0.7 U
Tetrachloroethene		240,000	40	7	NA	NA	NA	NA	NA	0.9 U	0.8 U	0.7 U	1.1 U	0.9 U	0.7 U
Toluene		280,000,000	109,000	4,600	NA	NA	NA	NA	NA	0.9 U	<b>1.2</b>	<b>0.9</b>	1.1 U	0.9 U	0.7 U
1,1,2-Trichloro-1,2,2-trifluoroethane		1,000,000,000 (e)	-	10,500,000	NA	NA	NA	NA	NA	1.8 U	1.6 U	1.4 U	2.2 U	<b>2.6</b>	1.4 U
<b>SEMIVOLATILES (µg/kg)</b>															
<b>Method SW8270D</b>															
4-Methylphenol		-	-	200	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Naphthalene		70,000,000	138,000	4,500	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
2-Methylnaphthalene		14,000,000	-	-	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Acenaphthylene		-	-	-	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Phenanthrene	70,000,000 / 2,000	-	-	-	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Fluoranthene		140,000	89,000	88,000	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Pyrene		110,000,000	3,500,000	650,000	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Chrysene	17,980,000 / 85	-	140	22	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Benzo(b)fluoranthene	1,798,000 / 289	-	440	69	NA	NA	NA	NA	NA	NA	61 U	60 U	NA	64 U	NA
Total cPAHs		18,000	-	-	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	NA
<b>PETROLEUM HYDROCARBONS (mg/kg)</b>															
<b>NWTPH-HCID</b>															
Diesel-Range Organics					50 U	50 U	50 U	50 U	50 U	50 U	50 U				
Lube Oil-Range Organics					100 U	100 U	100 U	100 U	100 U	100 U	100 U				
<b>NWTPH-Dx (mg/kg)</b>															
Diesel-Range Organics		2,000 (a)	2,000 (a)	2,000 (a)	NA	NA	NA	NA	NA	NA	NA	NA	NA	58	NA
Lube Oil-Range Organics		2,000 (a)	2,000 (a)	2,000 (a)	NA	NA	NA	NA	NA	NA	NA	NA	NA	400	NA
<b>TOTAL METALS (mg/kg)</b>															
<b>Method SW6010B/7471A</b>															
Arsenic		88	7 (b)	7 (b)	6 U	5 U	5 U	5 U	NA	6	6	<b>8</b>	<b>13</b>	<b>9</b>	5 U
Cadmium		3,500	1.2	1 (b)	0.3 U	<b>0.3</b>	0.2 U	0.2 U	NA	0.2 U	<b>0.3</b>	<b>0.7</b>	<b>0.8</b>	0.2 U	0.2 U
Chromium		1,000,000 (c)(e)	1,000,000 (e)	2,000	<b>14.5</b>	<b>15.1</b>	<b>24.0</b>	<b>24.6</b>	NA	<b>16.4</b>	<b>17.8</b>	<b>20.4</b>	<b>24.8</b>	<b>14.7</b>	<b>29.4</b>
Copper	129,500 / 19.6	130,000	36 (b)	36 (b)	NA	<b>13.3</b>	<b>15.6</b>	<b>17.7</b>	NA	<b>13.7</b>	<b>20.5</b>	<b>26.2</b>	<b>35.9</b>	<b>15.9</b>	<b>20.5</b>
Lead	1,000 / 812	1,000 (a)	1,600	110	3	2 U	4	11	NA	2 U	4	7	15	2	2 U
Mercury		1,100	0.1 (b)	0.1 (b)	0.05 U	0.05 U	0.04 U	<b>0.11</b>	NA	0.05 U	0.06 U	<b>0.10</b>	<b>0.17</b>	<b>0.05</b>	0.05 U

Bold indicates detected constituent.  
 Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.  
 U = Indicates the compound was undetected at the reported concentration.  
 UJ = The analyte was not detected in the sample; the reported sample detection limit is an estimate.  
 J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.  
 NA = Not Analyzed.  
 ND = Not Detected  
 (a) = MTCA Method A cleanup level for industrial properties.  
 (b) = Statewide background concentration (Ecology 1994).  
 (c) = Value listed is for chromium III.  
 (d) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan (AMEC 2008). The first number is Method C Ingestion (Method A industrial for lead).  
 The second number is Soil to Water Partition Calculation or Ecology Sediment Quality Standards for phenanthrene.  
 (e) = Screening level adjusted to 100% (1,000,000 mg/kg or 1,000,000,000µg/kg)

**TABLE 2  
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER  
BOEING THOMPSON SITE  
TUKWILA, WASHINGTON**

Location: Lab ID: Date Collected:	PACCAR Interim Action Work Plan Cleanup Levels (d)	Method B Protection of Marine Surface Water	Method B Protection of Fresh Surface Water	Former Washdown System Piping South of 14-01			Former Washdown System Piping Inside Building 14-01			Former Washdown System West of Building 14-01		Hazardous Material Storage Sheds		Hydraulic Oil Release Area
				TDP1-GW NX93F 11/3/2008	TDP25-GW NY44M 11/5/2008	TDP26-GW NY64H 11/6/2008	TDP7-GW NY07N 11/4/2008	TDP8-GW NY07M 11/4/2008	TDP11-GW NY07O 11/4/2008	TDP16-GW NY44K 11/5/2008	TDP18-GW NY44L 11/5/2008	TDP28-GW NY64I 11/6/2008	TDP29-GW NY64J 11/6/2008	TDP31-GW NY64K 11/6/2008
<b>VOLATILES (µg/L)</b>														
<b>Method SW8260B</b>														
Vinyl Chloride	2.4	2.4	0.025	1.0 U	1.8	140	0.2	0.7	0.2 U	0.3	0.2 U	0.2 U	0.2 U	0.2 U
Chloroethane				1.0 U	0.2	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone			800	5.0 U	5.8	5.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Carbon Disulfide			800	1.0 U	0.2 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4
1,1-Dichloroethene		3.2	0.057	1.0 U	0.2 U	1.0	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane			1,600	1.0 U	1.9	4.0	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4	0.3
trans-1,2-Dichloroethene		10,000	100	1.0 U	0.5	7.6	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	80		70	1.0 U	45	460	0.2 U	0.4	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,1-Trichloroethane		420,000	200	1.0 U	0.4	1.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene	1.5	30	2.5	1.0 U	71	240	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene	0.39	3.3	0.7	1.0 U	2.6	1.9	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene		2,100	530	1.0 U	0.4	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane			240,000	2.0 U	0.2 U	2.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4
o-Xylene				1.0 U	0.2	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Total Xylenes			1,600		0.2									
<b>SEMIVOLATILES (µg/L)</b>														
<b>Method SW8270D</b>														
Phenol		1,100,000	4,800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	9.1	1.0 U
2-Methylphenol			400	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.0 U
4-Methylphenol			40	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.9	1.0 U
Benzoic Acid			64,000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	24	10 U
2-Methylnaphthalene			32	7.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acenaphthene		640	640	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diethylphthalate		28,000	12,800	1.0 U	1.0 U	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Phenanthrene				1.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole			4.4	6.9 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Ethylhexyl)phthalate	2.2	1.2		1.0 U	1.3	1.0 U	1.0	2.5	1.1	1.0 U	1.8	1.0 U	3.8	3.0
1-Methylnaphthalene				6.9 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
<b>PAHs (µg/L)</b>														
<b>Method SW8270SIM</b>														
Naphthalene		4,900	160	0.13	0.13 J	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11
2-Methylnaphthalene			32	5.8	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1-Methylnaphthalene				4.4	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Acenaphthene		640	640	8.6	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Fluorene		3,500	640	0.62	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Phenanthrene				1.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.13	0.11
Fluoranthene		90	90	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.39	0.10 U
Pyrene		2,600	480	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.36	0.11
Benzo(a)anthracene		0.020 (e)	0.028	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.14	0.10 U
Chrysene		0.019 (e)	0.028	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10	0.10 U
Benzo(k)fluoranthene		0.036 (e)	0.028	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10	0.10 U
<b>PETROLEUM HYDROCARBONS (mg/L)</b>														
<b>NWTPH-HCID</b>														
Diesel-Range Organics				0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63	0.63 U
Oil-Range Organics				0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63	0.63
<b>NWTPH-Dx (mg/L)</b>														
Diesel-Range Organics	0.5		0.5 (a)	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 UJ	0.47 J
Oil-Range Organics			0.5 (a)	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 UJ	3.2 J
<b>DISSOLVED METALS (µg/L)</b>														
<b>Method EPA200.8/SW6010B/SW7470A</b>														
Arsenic		8 (b)	8 (b)	128	4.0	1.3	11.4	1.8	21.5	35.0	1.8	13.0	5.2	3.5
Chromium		240,000 (c)	57 (c)	6	5 U	5 U	7	5 U	14	5 U	5 U	5 U	5 U	5 U

**TABLE 2**  
**SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER**  
**BOEING THOMPSON SITE**  
**TUKWILA, WASHINGTON**

Bold indicates detected constituent.

Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.

U = Indicates the compound was undetected at the reported concentration.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

NA = Not Analyzed.

(a) = MTCA Method A cleanup level for industrial properties.

(b) = Statewide background concentration (Ecology 1994).

(c) = Value listed is for chromium III.

(d) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan.

(e) = Adjusted up to practical quantitation limit (PQL). PQL calculated from laboratory method detection limit (MDL). PQL = 10 x MDL.

**TABLE 3**  
**SUMP ANALYTICAL RESULTS**  
**BOEING THOMPSON SITE**  
**TUKWILA, WASHINGTON**

Location: TH-SUMP  
 Lab ID: NY64L  
 Date Collected: 11/6/2008

<b>VOLATILES (µg/L)</b>	
<b>Method SW8260B</b>	
Chloromethane	10 U
Bromomethane	10 U
Vinyl Chloride	10 U
Chloroethane	10 U
Methylene Chloride	42
Acetone	50 U
Carbon Disulfide	10 U
1,1-Dichloroethene	10 U
1,1-Dichloroethane	10 U
trans-1,2-Dichloroethene	10 U
cis-1,2-Dichloroethene	10 U
Chloroform	10 U
1,2-Dichloroethane	10 U
2-Butanone	50 U
1,1,1-Trichloroethane	10 U
Carbon Tetrachloride	10 U
Vinyl Acetate	50 U
Bromodichloromethane	10 U
1,2-Dichloropropane	10 U
cis-1,3-Dichloropropene	10 U
Trichloroethene	10 U
Dibromochloromethane	10 U
1,1,2-Trichloroethane	10 U
Benzene	10 U
trans-1,3-Dichloropropene	10 U
2-Chloroethylvinylether	50 U
Bromoform	10 U
4-Methyl-2-Pentanone (MIBK)	50 U
2-Hexanone	50 U
Tetrachloroethene	10 U
1,1,2,2-Tetrachloroethane	10 U
Toluene	29
Chlorobenzene	10 U
Ethylbenzene	10 U
Styrene	11
Trichlorofluoromethane	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	20 U
m,p-Xylene	20 U
o-Xylene	10 U
Total Xylenes	
<b>PETROLEUM HYDROCARBONS (mg/L)</b>	
<b>NWTPH-HCID</b>	
Gasoline Range Organics	1.0 U
Diesel Range Organics	2.5
Lube Oil	2.5
<b>NWTPH-Dx (mg/L)</b>	
Diesel Range Organics	25 J
Lube Oil	62 J
<b>TOTAL METALS (µg/L)</b>	
<b>Method EPA200.8/SW6010B/SW7470A</b>	
Arsenic	23.8
Cadmium	58
Chromium	510
Copper	1,950
Lead	6
Mercury	2 U

U = Indicates the compound was undetected at the reported concentration.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

**TABLE 4**  
**POLYCHLORINATED BIPHENYL WIPE SAMPLING ANALYTICAL RESULTS**  
**COMPRESSED AIR SYSTEM**  
**BOEING THOMPSON SITE**  
**TUKWILA, WASHINGTON**

Location:	LINE1-WIPE	LINE2-WIPE	LINE3-WIPE	LINE4-WIPE	LINE5-WIPE	LINE6-WIPE	LINE7-WIPE	LINE8-WIPE
Lab ID:	OB27A	OB27B	OB27C	OB27D	OB27E	OB27F	OB27G	OB27H
Date Collected:	11/21/2008	11/21/2008	11/21/2008	11/21/2008	11/21/2008	11/21/2008	11/21/2008	11/21/2008
<b>PCBs (µg)</b>								
<b>Method SW8082</b>								
Aroclor 1016	1.0 U							
Aroclor 1242	1.0 U							
Aroclor 1248	1.0 U							
Aroclor 1254	1.0 U							
Aroclor 1260	1.0 U							
Aroclor 1221	1.0 U							
Aroclor 1232	1.0 U							

**TABLE 4**  
**POLYCHLORINATED BIPHENYL WIPE SAMPLING ANALYTICAL RESULTS**  
**COMPRESSED AIR SYSTEM**  
**BOEING THOMPSON SITE**  
**TUKWILA, WASHINGTON**

Location:	LINE9-WIPE	LINE10-WIPE	LINE11-WIPE	COMP1-WIPE	COMP2-WIPE
Lab ID:	OB27I	OB27J	OB27K	OB27L	OB27M
Date Collected:	11/21/2008	11/21/2008	11/21/2008	11/21/2008	11/21/2008
<b>PCBs (µg)</b>					
<b>Method SW8082</b>					
Aroclor 1016	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Aroclor 1242	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Aroclor 1248	1.0 U	1.0 U	1.0 U	5.0 U	7.5 U
Aroclor 1254	1.0 U	1.0 U	1.0 U	<b>5.5</b>	<b>10</b>
Aroclor 1260	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Aroclor 1221	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Aroclor 1232	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U

U = Indicates the compound was undetected at the reported concentration.

**TABLE 5**  
**SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER - EXISTING MONITORING WELLS**  
**BOEING THOMPSON SITE**  
**TUKWILA, WASHINGTON**

	PACCAR Interim Action Work Plan Cleanup Levels (a)	Method B Protection of Marine Surface Water	Method B Protection of Fresh Surface Water	I-203 OL19F 2/4/2009	I-205 OL19E 2/4/2009	Dup of I-205 I-2055 OL19G 2/4/2009	I-206 OL19D 2/4/2009	PZ-2 OL19C 2/4/2009	PZ-4 OL19B 2/4/2009	PZ-6 OL24A 2/4/2009	PZ-7 OK85A 2/2/2009	PZ-8 OL19A 2/4/2009
<b>DISSOLVED METALS (µg/L)</b>												
<b>Method 200.8/6010B/7470A</b>												
Arsenic		8 (b)	8 (b)	<b>122</b>	<b>28.1</b>	<b>27.4</b>	<b>575</b>	<b>11.3</b>	<b>29.2</b>	<b>505</b>	<b>5.0</b>	1.0 U
Copper		20 (b)	20 (b)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Zinc		160 (b)	160 (b)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
<b>VOLATILES (µg/L)</b>												
<b>Method SW8260B</b>												
Vinyl Chloride	2.4	2.4	0.025	0.2 U	0.2 U	0.2 U	<b>1.8</b>	0.2 U				
Acetone			800	<b>3.1</b>	2.5 U	2.5 U	<b>4.2</b>	<b>2.6</b>	<b>3.0</b>	<b>3.9</b>	<b>4.8</b>	2.5 U
Carbon Disulfide			800	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	<b>0.2</b>	0.2 U	0.2 U
1,1-Dichloroethane			1,600	0.2 U	0.2 U	0.2 U	<b>0.3</b>	0.2 U				
trans-1,2-Dichloroethene		10,000	100	0.2 U	0.2 U	0.2 U	<b>0.4</b>	0.2 U				
cis-1,2-Dichloroethene	80		70	<b>1.3</b>	0.2 U	0.2 U	<b>0.7</b>	<b>0.5</b>	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane		15	0.50	0.2 U	0.2 U	0.2 U	0.2 U	<b>0.3</b>	0.2 U	0.2 U	0.2 U	0.2 U

Bold indicates detected constituent.

Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.

U = Indicates the compound was undetected at the reported concentration.

UJ = The analyte was not detected in the sample; the reported sample detection limit is an estimate.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

(a) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan (AMEC 2008).

(b) = Statewide background concentration (PTI 1989).

## **Methods and Procedures**

# METHODS AND PROCEDURES

## INTRODUCTION

This appendix describes the procedures used for conducting field activities during the Phase II environmental site assessment at the Boeing Thompson site (subject property) located at 8811 East Marginal Way South in Tukwila, Washington. The primary objective of this appendix is to provide sampling methodology consistent with accepted procedures to document that the data collected are adequate for use in characterizing site conditions.

## SOIL INVESTIGATION ACTIVITIES

The soil investigation was conducted to evaluate and document the soil and groundwater quality in areas of the subject property potentially impacted by Boeing operations as part of Boeing's risk management and due diligence activities. Soil sampling procedures are presented in the following sections.

### Subsurface Soil Sampling

Boreholes for soil and groundwater sample collection were advanced using a truck-mounted, direct-push drilling rig. Borings were accomplished by a driller licensed in the State of Washington and were monitored and documented by a Landau Associates field representative. Prior to initiation of drilling, the locations of each proposed exploration were checked in the field to locate aboveground utilities or physical limitations that would prevent drilling at the proposed location. In addition, a public utility locate service was contacted to locate underground utilities at the perimeter of the site and a private utility locate service was contracted to clear explorations for underground utilities. The final location for each borehole was based on the findings of the field check.

The direct-push borings were advanced to depths ranging from 6 feet (ft) to 15 ft BGS, based on the area of investigation. Continuous soil samples were collected from the borings using a 60-inch long, 1.5-inch inside-diameter (ID) core sampler. The sampler was advanced to the top of the sample interval then advanced over the desired depth interval, thereby coring the soil inside the sampler's disposable, single-use liner. The sampler was then withdrawn to retrieve the liner and soil sample. The liner was cut to remove the soil sample. A new liner was placed in the core sampler and this process was repeated until all desired soil samples were obtained. Between locations, the core sampler was decontaminated as described in the Sampling Equipment Decontamination section.

After the liner was cut, the soil type was field-classified in accordance with the Unified Soil Classification System (USCS) and recorded on Log of Exploration forms. The soil column retained in the sample liner was then field-screened for evidence of impact. Field screening was conducted by visually inspecting the soil for sheen and staining, and screening soil vapors for volatile organic compounds (VOCs) using a portable photoionization detector (PID).

Where field-screening results indicated the potential presence of soil contamination, a sample was collected from the affected area for laboratory testing. If no evidence of contamination was observed during field screening, soil samples were selected for analysis based on the area of investigation addressed by the soil boring, in accordance with the work plan. Soil samples were collected using methodology consistent with industry standard of practice for meeting Washington State Department of Ecology and U.S. Environmental Protection Agency (EPA) requirements. Soil samples collected for analysis of VOCs were collected using EPA Method 5035A. Upon completion of sampling, each soil boring was backfilled with bentonite chips.

## **GROUNDWATER INVESTIGATION ACTIVITIES**

The groundwater investigation was conducted to document conditions at the subject property and assess the potential for impacts due to current or historical operations. The sampling procedures are presented below.

### **Groundwater Sampling**

The groundwater samples were collected from selected direct-push borings using a disposable screen and riser. The temporary well screen was a 5-ft long, 0.75-inch ID, 0.010-inch slot size, polyvinyl chloride (PVC) screen. Once the target depth was reached (approximately 2 ft below the top of the shallow groundwater table), the temporary well was inserted into the direct-push boring and groundwater was extracted using disposable polyethylene tubing and a peristaltic pump. Groundwater was purged from the temporary well screen prior to sample collection until suspended particles were reduced. Prior to sample collection, field parameters including temperature, pH, and conductivity were measured and recorded on sample collection forms. A new PVC well screen and riser and new polyethylene tubing were used for each well. Samples were pumped directly into laboratory-supplied containers. Samples collected for dissolved metals analysis were field-filtered by passing water through a 0.45-micron filter prior to filling the laboratory-supplied containers.

## **SAMPLE ANALYSES**

Selected soil and water samples were delivered by Landau Associates to Analytical Resources, Inc. of Tukwila, Washington for analysis.

## **QUALITY ASSURANCE/QUALITY CONTROL**

The accuracy of the data was determined through evaluation of recovery of spiked surrogates, matrix spikes, and spiked laboratory control samples. The data were determined to be acceptable for use.

## **Sample Containers, Preservation, and Storage**

Soil and groundwater samples submitted to the analytical laboratory for analysis were collected in the appropriate sample containers provided by the analytical laboratory. The samples were preserved by cooling to a temperature of 4°C, as required by the analytical method. Maximum holding and extraction times until analysis were strictly adhered to by field personnel and the analytical laboratory.

## **Sample Transportation and Handling**

The transportation and handling of soil and groundwater samples were conducted so that the integrity of the samples was protected. Samples were logged on a chain-of-custody (COC) form and were kept in coolers on ice until delivery to the analytical laboratory. The COC form accompanied each shipment of samples to the laboratory.

## **Sample Custody**

The primary objective of sample custody is to create an accurate, written record that can be used to trace the possession and handling of samples so that their quality and integrity can be documented from collection until completion of all required analyses. Adequate sample custody was achieved by means of approved field and analytical documentation. Such documentation includes the COC record that was initially completed by the sampler and was, thereafter, signed by those individuals who accepted custody of the samples. A sample was considered to be in custody if at least one of the following was true:

- It was in someone's physical possession.
- It was in someone's view.
- It was secured in a locked container or otherwise sealed so that tampering would be evident.
- It was kept in a secured area, restricted to authorized personnel only.

Sample control and COC protocols in the field and during transportation to the laboratory were conducted in general conformance with the procedures described below:

- As few people as possible handled samples.
- Sample containers were obtained new or pre-cleaned from the laboratory performing the analyses.
- The sample collector was personally responsible for the completion of the COC record and the care and custody of samples collected until they were transferred to another person or dispatched properly under COC protocols.
- The cooler in which the samples were delivered to the laboratory was accompanied by the COC record identifying its contents.

When samples were transferred, the individuals relinquishing and receiving the samples signed the COC form and recorded the date and time of transfer. The sample collector signed the form in the first signature space. Each person taking custody observed whether the shipping container was correctly sealed and in the same condition as noted by the previous custodian (if applicable). The case narrative provided by the analytical laboratory indicates that all samples were received in good condition.

### **Sampling Equipment Decontamination**

All reusable sampling equipment used (i.e., stainless steel bowls, stainless steel spoons, soil hand-auger, etc.) was cleaned using a three-step process, as follows:

1. Scrub surfaces of equipment that would be in contact with the sample with brushes using an Alconox solution
2. Rinse and scrub equipment with clean tap water
3. Rinse equipment a final time with distilled water to remove tap water impurities.

Decontamination of the reusable sampling devices occurred between collection of each sample.

### **Heavy Equipment Decontamination**

Heavy equipment (i.e., the drilling rigs and drilling equipment that were used downhole, or that contacted material and equipment going downhole) was cleaned using the procedures described for sampling equipment except that potable tap water was used as the rinsing agent.

## **MANAGEMENT OF INVESTIGATION-DERIVED WASTE**

Soil cuttings generated during boring advancement and water generated during well purging and decontamination were temporarily stored on site in 55-gallon drums. Waste characterization samples were collected from the drums and the results were forwarded to Boeing for use in profiling the waste for disposal. Disposable equipment and clothing were disposed as solid waste.

# Soil Boring Logs

# Soil Classification System

	MAJOR DIVISIONS	CLEAN GRAVEL (Little or no fines)	GRAPHIC SYMBOL	LETTER SYMBOL <sup>(1)</sup>	TYPICAL DESCRIPTIONS <sup>(2)(3)</sup>
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL  (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		<b>GW</b>	Well-graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		<b>GP</b>	Poorly graded gravel; gravel/sand mixture(s); little or no fines
	SAND AND SANDY SOIL  (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		<b>GM</b>	Silty gravel; gravel/sand/silt mixture(s)
		SAND WITH FINES (Appreciable amount of fines)		<b>GC</b>	Clayey gravel; gravel/sand/clay mixture(s)
		CLEAN SAND (Little or no fines)		<b>SW</b>	Well-graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)		<b>SP</b>	Poorly graded sand; gravelly sand; little or no fines
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY  (Liquid limit less than 50)	CLEAN SAND (Little or no fines)		<b>SM</b>	Silty sand; sand/silt mixture(s)
		SAND WITH FINES (Appreciable amount of fines)		<b>SC</b>	Clayey sand; sand/clay mixture(s)
		SILT AND CLAY  (Liquid limit greater than 50)		<b>ML</b>	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
	SILT AND CLAY  (Liquid limit greater than 50)	SILT AND CLAY  (Liquid limit less than 50)		<b>CL</b>	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
		SILT AND CLAY  (Liquid limit greater than 50)		<b>OL</b>	Organic silt; organic, silty clay of low plasticity
		SILT AND CLAY  (Liquid limit greater than 50)		<b>MH</b>	Inorganic silt; micaceous or diatomaceous fine sand
	HIGHLY ORGANIC SOIL	SILT AND CLAY  (Liquid limit greater than 50)		<b>CH</b>	Inorganic clay of high plasticity; fat clay
		SILT AND CLAY  (Liquid limit greater than 50)		<b>OH</b>	Organic clay of medium to high plasticity; organic silt
HIGHLY ORGANIC SOIL	HIGHLY ORGANIC SOIL		<b>PT</b>	Peat; humus; swamp soil with high organic content	

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		<b>AC or PC</b>	Asphalt concrete pavement or Portland cement pavement
ROCK		<b>RK</b>	Rock (See Rock Classification)
WOOD		<b>WD</b>	Wood, lumber, wood chips
DEBRIS		<b>DB</b>	Construction debris, garbage

- Notes:
- USCS letter symbols correspond to symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM for sand or gravel) indicate soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.
  - Soil descriptions are based on the general approach presented in the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the Standard Test Method for Classification of Soils for Engineering Purposes, as outlined in ASTM D 2487.
  - Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:
    - Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
    - Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
    - > 15% and ≤ 30% - "gravelly," "sandy," "silty," etc.
    - Additional Constituents: > 5% and ≤ 15% - "with gravel," "with sand," "with silt," etc.
    - ≤ 5% - "with trace gravel," "with trace sand," "with trace silt," etc., or not noted.
  - Soil density or consistency descriptions are based on judgement using a combination of sampler penetration blow counts, drilling or excavating conditions, field tests, and laboratory tests, as appropriate.

Drilling and Sampling Key		Field and Lab Test Data																																																				
SAMPLER TYPE	SAMPLE NUMBER & INTERVAL																																																					
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Code</th> <th style="text-align: left;">Description</th> </tr> <tr><td>a</td><td>3.25-inch O.D., 2.42-inch I.D. Split Spoon</td></tr> <tr><td>b</td><td>2.00-inch O.D., 1.50-inch I.D. Split Spoon</td></tr> <tr><td>c</td><td>Shelby Tube</td></tr> <tr><td>d</td><td>Grab Sample</td></tr> <tr><td>e</td><td>Single-Tube Core Barrel</td></tr> <tr><td>f</td><td>Double-Tube Core Barrel</td></tr> <tr><td>g</td><td>2.50-inch O.D., 2.00-inch I.D. WSDOT</td></tr> <tr><td>h</td><td>3.00-inch O.D., 2.375-inch I.D. Mod. California</td></tr> <tr><td>i</td><td>Other - See text if applicable</td></tr> <tr><td>1</td><td>300-lb Hammer, 30-inch Drop</td></tr> <tr><td>2</td><td>140-lb Hammer, 30-inch Drop</td></tr> <tr><td>3</td><td>Pushed</td></tr> <tr><td>4</td><td>Vibrocure (Rotasonic/Geoprobe)</td></tr> <tr><td>5</td><td>Other - See text if applicable</td></tr> </table>	Code	Description	a	3.25-inch O.D., 2.42-inch I.D. Split Spoon	b	2.00-inch O.D., 1.50-inch I.D. Split Spoon	c	Shelby Tube	d	Grab Sample	e	Single-Tube Core Barrel	f	Double-Tube Core Barrel	g	2.50-inch O.D., 2.00-inch I.D. WSDOT	h	3.00-inch O.D., 2.375-inch I.D. Mod. California	i	Other - See text if applicable	1	300-lb Hammer, 30-inch Drop	2	140-lb Hammer, 30-inch Drop	3	Pushed	4	Vibrocure (Rotasonic/Geoprobe)	5	Other - See text if applicable		<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Code</th> <th style="text-align: left;">Description</th> </tr> <tr><td>PP = 1.0</td><td>Pocket Penetrometer, tsf</td></tr> <tr><td>TV = 0.5</td><td>Torvane, tsf</td></tr> <tr><td>PID = 100</td><td>Photoionization Detector VOC screening, ppm</td></tr> <tr><td>W = 10</td><td>Moisture Content, %</td></tr> <tr><td>D = 120</td><td>Dry Density, pcf</td></tr> <tr><td>-200 = 60</td><td>Material smaller than No. 200 sieve, %</td></tr> <tr><td>GS</td><td>Grain Size - See separate figure for data</td></tr> <tr><td>AL</td><td>Atterberg Limits - See separate figure for data</td></tr> <tr><td>GT</td><td>Other Geotechnical Testing</td></tr> <tr><td>CA</td><td>Chemical Analysis</td></tr> </table>	Code	Description	PP = 1.0	Pocket Penetrometer, tsf	TV = 0.5	Torvane, tsf	PID = 100	Photoionization Detector VOC screening, ppm	W = 10	Moisture Content, %	D = 120	Dry Density, pcf	-200 = 60	Material smaller than No. 200 sieve, %	GS	Grain Size - See separate figure for data	AL	Atterberg Limits - See separate figure for data	GT	Other Geotechnical Testing	CA	Chemical Analysis
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<h3 style="margin: 0;">Groundwater</h3>																																																						
		Approximate water level at time of drilling (ATD)																																																				
		Approximate water level at time other than ATD																																																				

4/1/09 \NEDM\DATA\GINT\GINT\PROJECTS\025173-100-103.GPJ SOIL CLASS SHEET

# TDP-1

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0					AC	AC	Asphalt	
0.0				0.0	SP	SP	Brown, gravelly, fine to coarse SAND (medium dense, damp) (no odor, no sheen)	
0.0				0.0	SM	SM	[Fill] Brown, silty, fine to coarse SAND (medium dense, damp) (no odor, no sheen)	
6.0		d3			SP/SM	SP/SM	Dark gray, fine to medium SAND with silt and rock and glass debris (dense, damp to moist) (no odor, no sheen)	
10.5	TDP1-9-081103	d3		10.5	SM	SM	Gray, silty, fine to medium SAND (medium dense, moist to wet) (no odor, no sheen) [Native]  -Increased silt content with depth	
12.3		d3		12.3	SM	SM		
14.0								▽ ATD

Boring Completed 11/03/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-1

Figure  
**B-2**

# TDP-2

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
	TDP2-5-081103	d3		6.1	AC	SP	Groundwater not encountered.
				7.0	RK	SP-SM	

Drilling Method: Geoprobe™  
 Ground Elevation (ft): \_\_\_\_\_  
 Drilled By: Cascade Drilling Inc.

Asphalt

Brown, gravelly, fine to coarse SAND with silt (medium dense, damp) (no odor, no sheen) [Fill]

White, crushed rock

Brown gravelly, fine to coarse SAND with trace silt (medium dense, moist to wet) (no odor, no sheen)

-Perched water from 6.6 to 7 feet

Boring Completed 11/03/08  
 Total Depth of Boring = 7.0 ft.

-Refusal at 7 feet due to concrete slab

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Boeing Thompson Property Tukwila, Washington	Log of Boring TDP-2	Figure <b>B-3</b>
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# TDP-3

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
	0				AC	Asphalt	
2		d3		6.5	SP	Brown, fine to coarse SAND with trace silt (medium dense, dry) (no odor, no sheen) [Fill]	Groundwater not encountered.
4					RK	White, crushed rock	
6		d3		3.3	SP-SM	Dark brown, gravelly, fine to coarse SAND with silt (loose, wet) (no odor, no sheen) -Perched water from 5 to 6 feet	
						-Refusal at 6 feet due to concrete slab	

Boring Completed 11/03/08  
Total Depth of Boring = 6.0 ft.

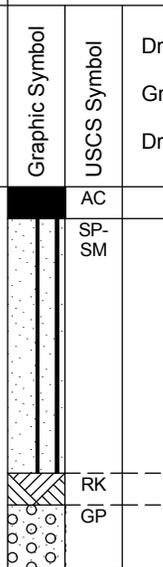
25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Boeing Thompson Property Tukwila, Washington	Log of Boring TDP-3	Figure <b>B-4</b>
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# TDP-3A

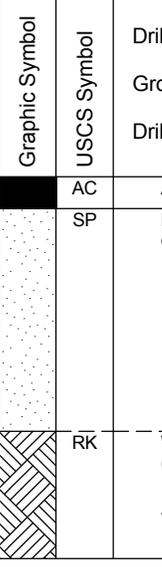
SAMPLE DATA		SOIL PROFILE			GROUNDWATER			
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Groundwater not encountered.
	TDP3-5-081103	d3	0.9	1.6		AC SP-SM RK GP	Asphalt Brown, gravelly, fine to coarse SAND with silt (medium dense, damp) (no odor, no sheen) [Fill] White, crushed rock Brown, sandy, GRAVEL (loose, wet) (no odor, no sheen)	
Boring Completed 11/03/08 Total Depth of Boring = 6.0 ft.							-Perched water from 5 to 6 feet -Refusal at 6 feet due to concrete slab	

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



# TDP-4

SAMPLE DATA		SOIL PROFILE			GROUNDWATER			
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Groundwater not encountered.
	TDP4-4-091103	d3	d3	0.6		AC Asphalt  SP Brown, fine to coarse SAND (medium dense, damp) (no odor, no sheen) [Fill]  RK White, crushed rock (medium dense, damp) (no odor, no sheen) -Perched water from 5 to 6 feet  -Refusal at 6 feet due to concrete slab		

Boring Completed 11/03/08  
Total Depth of Boring = 6.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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# TDP-5

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Groundwater
0						AC	Concrete	
10.7		d3		10.7		SM	Brown, silty, fine to medium SAND (medium dense, damp) (organic odor, no sheen) [Fill]	
11.6	TDP5-5-081103	d3		11.6		SM	Gray, silty, fine to medium SAND (medium dense, moist to wet) (no odor, no sheen) [Native]	
12.8		d3		12.8				▽ ATD

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-5

Figure  
**B-7**

# TDP-6

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Concrete	
0.3		d3		0.3		SM	Brown, silty, fine to medium SAND with trace gravel (medium dense, damp) (no odor, no sheen) [Fill]	
0.8	TDP6-8-081104	d3		0.8		SM	Gray, silty, fine SAND (dense, moist to wet) (no odor, no sheen) [Native]  -Increased sand content from 12 to 15 feet	
0.6		d3		0.6				▽ ATD

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-6

Figure  
**B-8**

# TDP-7

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0						AC	Concrete	
0 - 3.5						SM	Brown, silty, fine to medium SAND (medium dense, damp) (no odor, no sheen) [Fill]	
3.5 - 7.0		d3		0.5				
7.0 - 8.5	TDP7-8-081104	d3		0.5				
8.5 - 11.0		d3		1.1		SM	Gray, silty, fine to medium SAND (medium dense, moist to wet) (no odor, no sheen) [Native]	▽ ATD

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-7

Figure  
**B-9**

# TDP-8

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0						AC	Concrete	
0 - 2		d3		0.6		SM	Brown, silty, fine to medium SAND (medium dense, damp) (no odor, no sheen) [Fill]  -Gravel at 2 feet (lense thickness 0.25)	
2 - 6							-Gravel at 6 feet (lense thickness 0.25)	
6 - 8		d3				SM	Dark gray, silty, fine to medium SAND with organic debris (medium dense, damp) (no odor, no sheen)	
8 - 10				0.2		SM	Gray, silty, fine to medium SAND (dense, moist to wet) (no odor, no sheen) [Native]	
10 - 12								
12 - 14		d3		0.2			- Increased sand at 12 feet	
14 - 15.0								▽ ATD

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-8

Figure  
**B-10**

# TDP-9

SAMPLE DATA		SOIL PROFILE			GROUNDWATER					
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Ground Elevation (ft): _____	Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Concrete			
2		d3		1.2		SP/SM	Brown, fine to medium SAND with silt and trace gravel (medium dense, damp) (no odor/ no sheen) [Fill]			
4							-Becomes reddish color from 4 to 7 feet			
6										
8	TDP9-8-081104	d3		1.6		AC	Asphalt			
10						SP	Greenish brown, fine to coarse SAND with trace silt and gravel (medium dense, damp) (no odor, no sheen)			
12		d3		0.3		SM	Gray, silty, fine to medium SAND (medium dense, moist to wet) (no odor, no sheen) [Native]			
14							-Silty layer at 10 feet			
16							-Increased sand at 12 feet			
18										
20										
									▽ ATD	

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-9

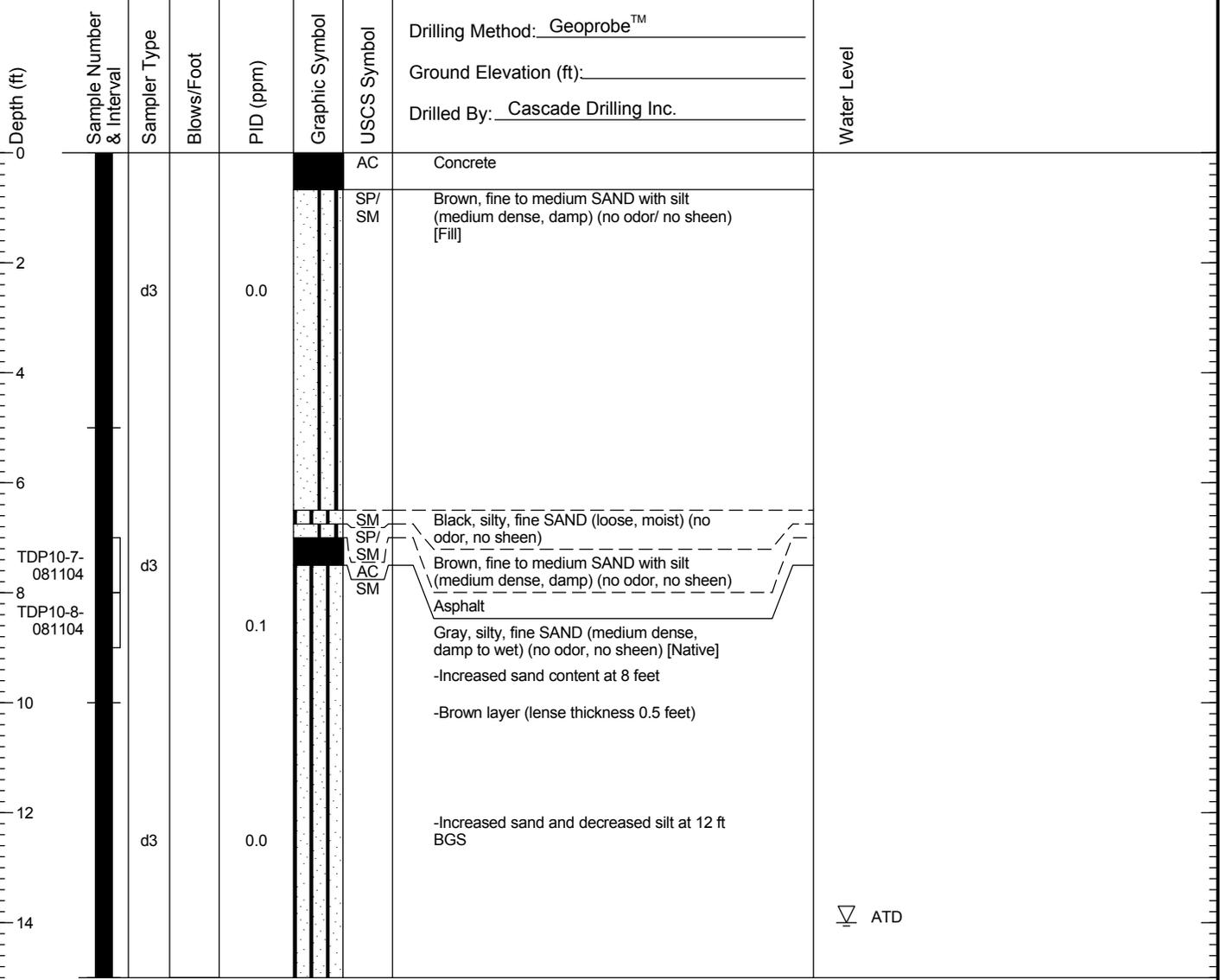
Figure  
**B-11**

# TDP-10

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER



Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

▽ ATD

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Tukwila, Washington

Log of Boring TDP-10

Figure  
**B-12**

# TDP-11

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
	0				AC	Concrete	
2		d3		0.1	SP	Brown, fine to medium SAND with trace silt (medium dense, damp) (no odor, no sheen) [Fill]	
4							
6							
8	TDP11-7-081104	d3		0.4	ML SP SM SP	Dark brown, clayey SILT (stiff, soft, damp) (no odor, no sheen) Dark brownish black, coarse SAND with gravel and silt (medium dense, damp) (no odor, no sheen)	
10	TDP11-9-081104				ML	Light gray, gravelly, medium to coarse SAND (medium dense, damp to moist) (no odor, no sheen) Gray, clayey, SILT (soft, moist) (no odor, no sheen) [Native]	
12		d3		0.7			
14					SM	Gray, silty, fine to medium SAND (medium dense, wet) (no odor, no sheen)	▽ ATD

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-11

Figure  
**B-13**

# TDP-12

SAMPLE DATA		SOIL PROFILE			GROUNDWATER			
Depth (ft) 0 2 4 6 8 10 12 14 16 18 20	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
						AC	Concrete	
		d3		0.4		SM	Brown, silty, fine to medium SAND with trace gravel (medium dense, damp) (no odor, no sheen) [Fill]	
	TDP12-7-081104	d3		0.7		ML SM	Grayish black, clayey SILT (soft, damp) (no odor, no sheen) Greenish gray, silty, fine to medium SAND with gravel (dense, moist) (no odor, no sheen)	
	d3		0.4		SM	Gray silty, fine SAND (medium dense, moist to wet) (no odor, no sheen) [Native]	▽ ATD	

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Tukwila, Washington

Log of Boring TDP-12

Figure  
**B-14**

# TDP-13

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC	Concrete
2		d3		0.7		SM	Brown, silty, fine to medium SAND (medium dense, dry) (no odor, no sheen) [Fill]
4							-Layer of crushed rock at 5 feet
6							
8	TDP13-7-081104	d3		0.2		ML	Black, clayey SILT (soft, moist) (no odor, no sheen)
8						SP/SM	Greenish black, fine to coarse SAND with silt (medium dense, dry) (no odor, no sheen)
8						SM	Gray, silty, fine SAND (medium dense, moist to wet) (no odor, no sheen) [Native]
10							
12		d3		0.3			
14							▽ ATD
16							-Wood at 15 feet

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
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  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-13

Figure  
**B-15**

# TDP-14

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>		Water Level
							Ground Elevation (ft): _____		
0						AC	Concrete		
2		d3				SP/SM	Brown, fine to medium SAND with silt (medium dense, moist) (no odor, no sheen) [Fill]		
4	TDP14-4-081104			0.0		ML	Gray, sandy, SILT (soft, moist) (no odor, no sheen)		
6						SP/SM	Brown, fine to medium SAND with silt (medium dense, moist) (no odor, no sheen)		
8		d3		0.0		SM	Dark gray, silty, fine SAND with organic debris (medium dense, moist) (no odor, no sheen)		
10						SM	Brown mottled, silty, fine to medium SAND (medium dense, moist) (no odor, no sheen) [Native]		
12						SM	Gray, silty fine to medium SAND (medium dense, moist) (no odor, no sheen)		
14		d3		0.0		SP/SM	Brown, fine to medium SAND with silt (medium dense, wet) (no odor, no sheen)		
14							-Increased silt content at 14 feet		▽ ATD

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-14

Figure  
**B-16**

# TDP-15

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Concrete	
2		d3				SP/SM	Brown, fine to medium SAND with silt (medium dense, damp) (no odor, no sheen) [Fill]	
4	TDP15-4-081104			0.0		SP/SM	Gray, fine SAND with silt (medium dense, moist to wet) (no odor, no sheen) [Native] -Increased silt at 5 feet	
6		d3		0.0				
8								
10							-Becomes brown at 9 feet	
12		d3		0.0				
14								▽ ATD

Boring Completed 11/04/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-15

Figure  
**B-17**

# TDP-16

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0						AC	Concrete	
2		d3				SM	Brown, silty, fine to medium SAND (medium dense, damp) (no odor, no sheen) [Fill]	
4	TDP16-3-081105			0.0		SM	Dark gray, silty, fine SAND with organic debris (dense, moist to wet) (organic-like odor, no sheen) [Native]  -Becomes brown between 5 and 5.5 feet  -Increase silt content with depth	
8		d3		0.0				
12		d3		0.0				
14								▽ ATD

Boring Completed 11/05/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-16

Figure  
**B-18**

# TDP-17

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile Description	Groundwater
0						AC	Concrete	
0 - 14	TDP17-4-081105	d3		0.0		SM	Brown to gray, silty, fine to medium SAND (medium dense, moist) (organic-like odor, no sheen) [Fill]  -Silt layer from 3 to 4 feet  -Brick debris at 6 feet	Water Level
8 - 11		d3		0.0		SM	Brown mottled, silty, fine SAND (medium dense, moist) (no odor, no sheen) [Native]  -Increased sand content at 11 feet	
14 - 15						SM	Gray, silty, fine SAND (medium dense, wet) (no odor, no sheen)	▽ ATD

Boring Completed 11/05/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-17

Figure  
**B-19**

# TDP-18

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile Description	Water Level
0						AC	Concrete	
0 - 4	TDP18-4-081105	d3		0.0	[Fill]	SM	Brown to gray, silty, fine to medium SAND (medium dense, moist) (no odor, no sheen) [Fill] -Gravel layer at 1 feet  -Silt layer at 3 feet  -Brick debris at 4.5 feet	
4 - 12		d3		0.0	[Native]	SM	Brown mottled, silty, fine SAND (medium dense, moist to wet) (no odor, no sheen) [Native]	▽ ATD
12 - 15.0		d3		0.0			-Becomes gray at 14 feet	

Boring Completed 11/05/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-18

Figure  
**B-20**

# TDP-19

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Concrete	
0 - 2		d3				SM	Gray, silty, fine to medium SAND with gravel (medium dense, moist) (no odor, no sheen) [Fill]	
2 - 4		d3				SM	Brown, silty, fine to medium SAND (medium dense, moist) (no odor, no sheen)	
4 - 6	TDP19-4-081105			1.6		SM	Gray to black, silty, fine to medium SAND with organic material (medium dense, moist) (no odor, no sheen) [Native]	
6 - 8		d3		1.6		SM	Brown mottled, silty, fine to medium SAND (medium dense, moist to wet) (no odor, no sheen)	
8 - 14		d3		1.6		SM		▽ ATD

Boring Completed 11/05/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-19

Figure  
**B-21**

# TDP-20

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
	0				AC	Concrete	
	TDP20-3-081105	d3		0.0	GW SM	Gravel road base	Groundwater not encountered.
2					SM	Gray, silty, fine SAND (medium dense, damp) (no odor, no sheen) [Fill]	
4				0.0	ML SM	Gray SILT with wood debris (stiff, damp) (no odor, no sheen) [Native]	
6		d3				-Increased density and silt content between 7 and 8 feet	
8						Gray, silty, fine SAND (medium dense, soft to damp) (no odor, no sheen)	
10	Boring Completed 11/05/08 Total Depth of Boring = 8.0 ft.						
12							
14							
16							
18							
20							

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



# TDP-21

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft) 0 2 4 6 8	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Groundwater not encountered.
	TDP21-3-081105	d3		0.0	[Fill]	AC	
	[Interval]	d3		0.0	[Native]	ML	

Boring Completed 11/05/08  
Total Depth of Boring = 8.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



# TDP-22

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
	0 TDP22-3-081105	d3		0.0	[Asphalt]	AC	
2							Groundwater not encountered.
4							
6	d3			0.0	[Silty Sand]	SP/SM	
8							

Boring Completed 11/05/08  
Total Depth of Boring = 8.0 ft.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



# TDP-23

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
	0				AC	Asphalt	
2	TDP23-3-081105	d3		0.0	SP/SM	Brown, fine to medium SAND with silt (medium dense, damp) (no odor, no sheen) [Fill]	Groundwater not encountered.
4					SM	Gray, silty, fine to medium SAND (dense, damp) (no odor, no sheen) [Native]	
6		d3		0.0		-Becomes brown between 5 and 6.5 feet  -Gravel layer at 6 feet  -Increase density and gravel at 7.5 feet	
8							

Boring Completed 11/05/08  
Total Depth of Boring = 8.0 ft.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



# TDP-24

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0						AC	Asphalt	
0 to 2						SP	Brown, fine to coarse SAND with gravel (medium dense, damp) (no odor, no sheen) [Fill]	
2 to 8		d	3	0.0		SM	Gray, silty, fine to medium SAND (medium dense, damp to wet) (no odor, no sheen) [Native]	
8 to 11		d	3	0.0				
11 to 12							-Layer of brick and rock debris at 11 feet (lense thickness 0.25 feet)	
12	TDP24-11-081105	d	3					▽ ATD

Boring Completed 11/05/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-24

Figure  
**B-26**

# TDP-25

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC	Asphalt
0.5						GW	Gravelly road base
1				0.0		SP/SM	Brown to mottled gray, fine to medium SAND with trace silt (medium dense, damp) (no odor, no sheen) [Fill]
2		d3					
4							
6							
8							
10	TDP25-9-081105			0.0			
11							-Layer of rock at 10 feet (lense thickness 0.25 feet)
12		d3				SP/SM	Gray, fine to medium SAND with trace silt (medium dense, damp) (no odor, no sheen) [Native]
14							
16							▽ ATD

Boring Completed 11/05/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-25

Figure  
**B-27**

# TDP-26

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>		Water Level
							Ground Elevation (ft): _____		
0						AC	Asphalt		
0.2						SP/SM	Brown, fine to coarse SAND with gravel and silt (medium dense, damp) (no odor, no sheen) [Fill]		
2.0		d3		0.0		SM	Brown, fine to medium SAND with silt -Layer of crushed rock at 2 feet		
8.0	TDP26-8-081106	d3		0.2			-Becomes gray with trace gravel		
10.0						SM	Brown mottled, silty, fine SAND (medium dense, moist to wet) (no odor, no sheen)		
12.0		d3		1.1					
14.0						SM	Gray, silty, fine SAND (medium dense, wet) (no odor, no sheen) [Native]		▽ ATD

Boring Completed 11/06/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-26

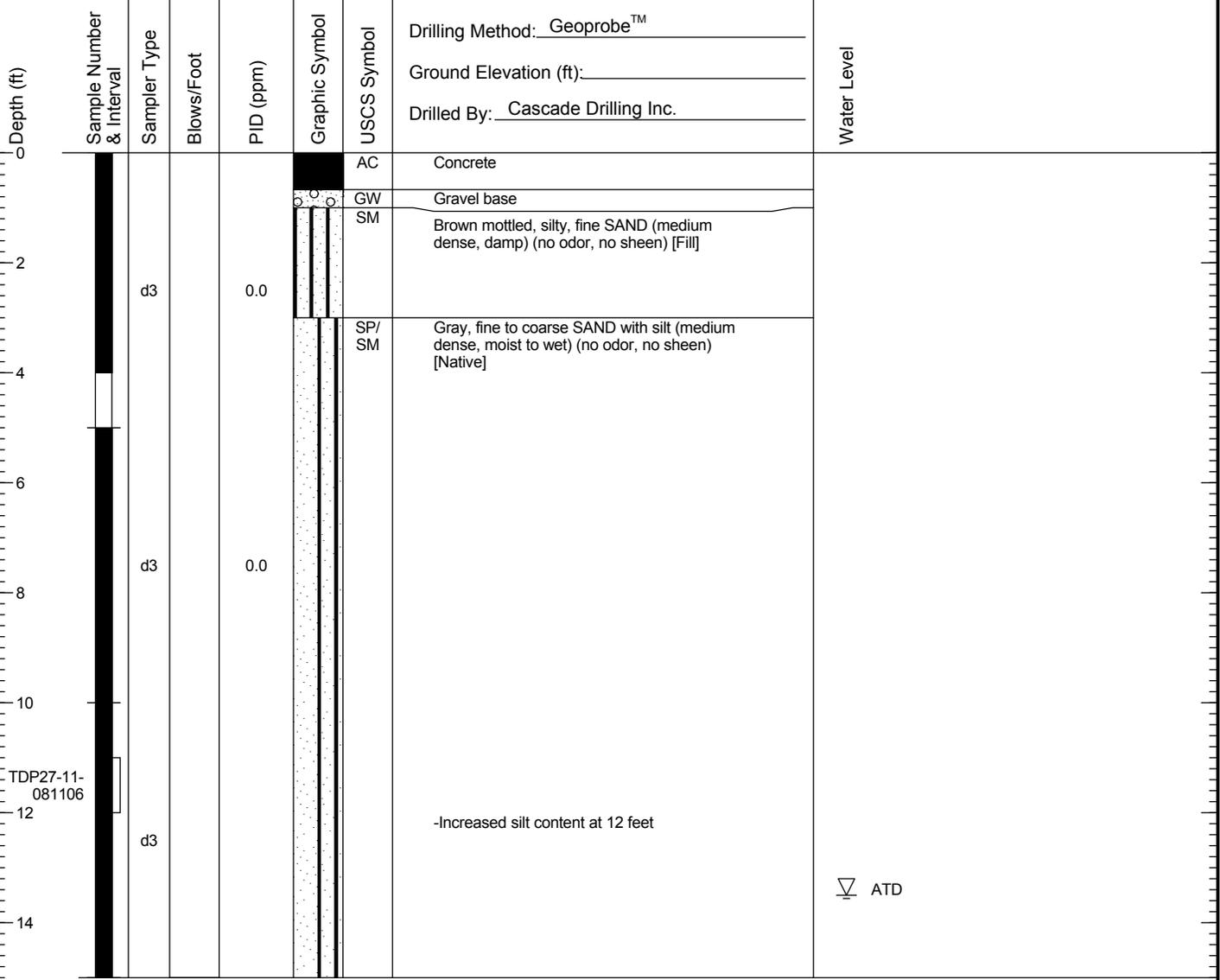
Figure  
**B-28**

# TDP-27

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER



Boring Completed 11/06/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-27

Figure  
**B-29**

# TDP-28

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>		Water Level
							Ground Elevation (ft): _____		
0						AC	Concrete		
2		d3		0.0		SP/SM	Brown, fine to coarse SAND with silt (medium dense, moist) (no odor, no sheen) [Fill]		
4							-Silt layer at 3 feet		
8		d3		0.0					
10						SM	Gray, silty, fine SAND (medium dense, moist) (no odor, no sheen) [Native]		
12	TDP28-11-081106	d3		0.0			-Organic debris at 11 feet		
14							-Increased silt at 13 feet		▽ ATD

Boring Completed 11/06/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173\100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-28

Figure  
**B-30**

# TDP-29

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>		Water Level
							Ground Elevation (ft): _____		
0						AC	Concrete		
2		d3		0.0		SP	Brown, fine to coarse SAND (loose, moist) (no odor, no sheen) [Fill] -Increased silt content at 1.5 feet		
6		d3		0.0		SP/SM	Gray, fine to medium SAND with silt (medium dense, moist to wet) (no odor, no sheen) [Native]		
12	TDP29-11-081106	d3		0.0			-Organic layer present at 11.5 feet		
14								▽ ATD	

Boring Completed 11/06/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173\100\103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-29

Figure  
**B-31**

# TDP-30

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

25173.10 4/1/09 \NED\MDATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0						AC	Concrete	
0 - 10		d3		0.0		SP/SM	Brown, fine to medium SAND with silt (medium dense, moist) (no odor, no sheen) [Fill]	
10 - 11		d3		0.0		SM	Gray, silty, fine to medium SAND (medium dense, moist to wet) (organic-like odor, no sheen) [Native] -Organic matter at 11 feet	
11 - 13		d3		0.0			-Organic matter at 13 feet	▽ ATD

Boring Completed 11/06/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-30

Figure  
**B-32**

# TDP-31

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>		Water Level
							Ground Elevation (ft): _____		
0						AC	Concrete		
2		d3		0.0		SM	Brown, silty, fine to coarse SAND with gravel (medium dense, moist) (no odor, no sheen) [Fill]		
4									
6									
8		d3		0.0					
10									
12	TDP31-12-081106	d3		1.2		SM	Gray, silty, fine SAND (medium dense, moist to wet) (diesel-like odor at 13 feet, sheen at 13 feet) [Native]		▽ ATD
14									
16									
18									
20									

Boring Completed 11/06/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-31

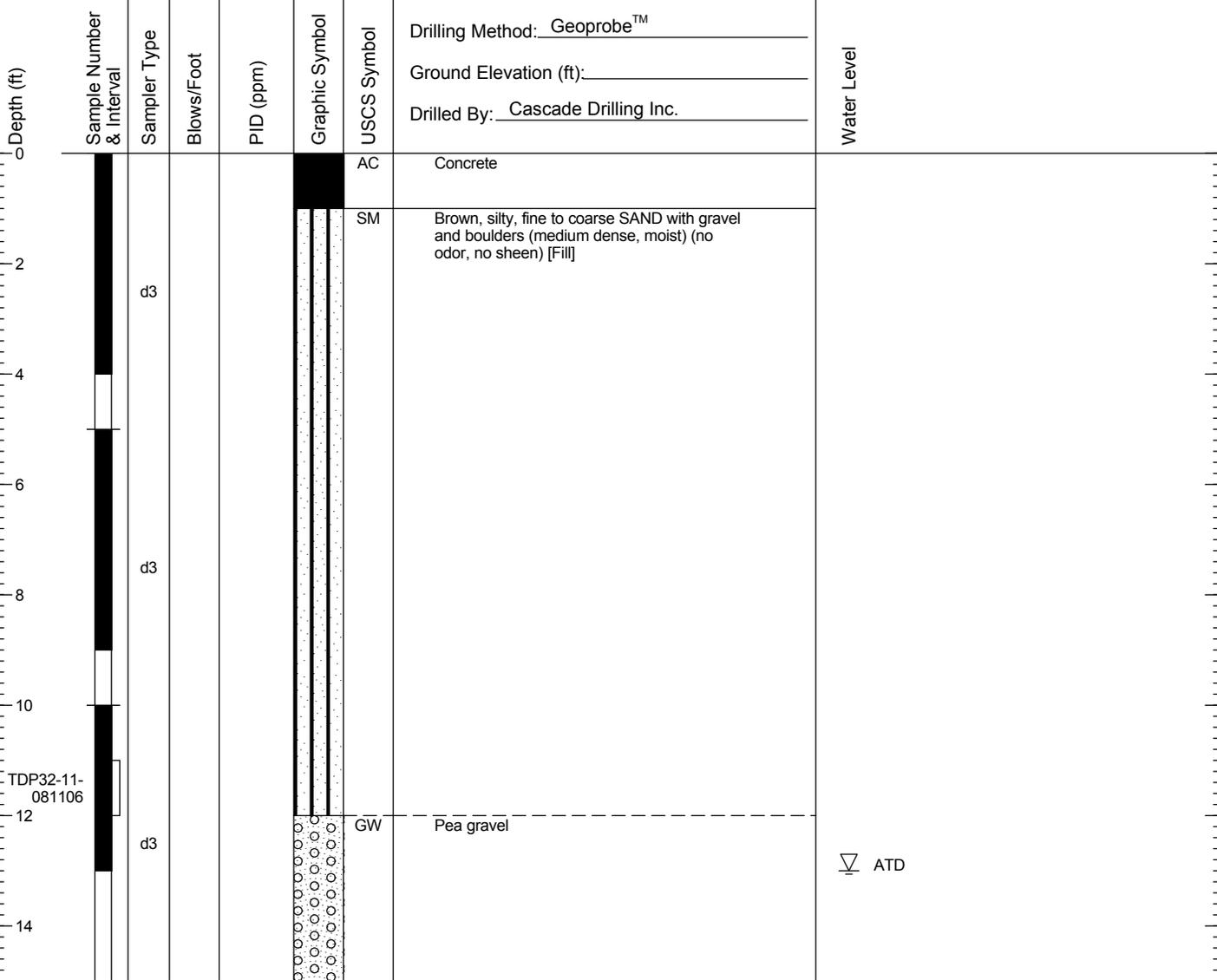
Figure  
**B-33**

# TDP-32

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER



Boring Completed 11/06/08  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.10 4/1/09 \NED\DATA\GINT\GINT\PROJECTS\025173.100.103.GPJ SOIL BORING LOG



Boeing Thompson Property  
Tukwila, Washington

Log of Boring TDP-32

Figure  
**B-34**

## **Laboratory Analytical Reports (on CD-ROM)**



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

November 24, 2008

Tim Syverson  
Landau Associates, Inc.  
130 Second Ave  
Edmonds, WA 98020

**RE: Project: Boeing Thompson, 025173**  
**ARI Job No.: NX93**

Dear Tim:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, the analytical results for the above referenced project. Analytical Resources, Inc. (ARI) accepted five soil samples and one water sample on November 3, 2008. Two coolers were received with temperatures 7.4 and 9.6°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM PAHs, PCBs, NWTPH-HCID, NWTPH-Dx, and MTCA Metals, as requested. Please note that the SIM PAH analysis was cancelled for sample **TDP1-9-081103** and MTCA Metals were requested instead of RCRA Metals for all samples.

**Volatiles Analyses:** The internal standard percent difference of d4-1,4-Dichlorobenzene was outside the control limit for sample **TDP1-9-081103**. The sample was re-analyzed and the internal standard was comparable to the original analysis. Both sets of data have been included in this report for your review. No further corrective action was required.

Continuing Calibrations had compounds outside of the 20% control limit for the 11/05/08, 11/11/08, and 11/12/08 volatiles analyses, but were accepted outliers under ARI SOPs. No further /corrective action was taken.

Several matrix spike and matrix spike duplicate percent recoveries for the volatiles analysis were outside the control limits for sample **TDP4-4-081103**. No further corrective action is required for matrix QC as the outliers are indicators of matrix characteristics.

**Semivolatiles Analyses:** The surrogate percent recovery of d4-1,2-Dichlorobenzene was outside the control limits slightly high for **LCS-110508**. All other surrogate percent recoveries were within control limits. No further corrective action was required.

Several matrix spike/matrix spike duplicate and LCS/LCSD percent recoveries were outside the advisory control limits for sample **TDP1-9-081103** and **LCS-111108**. All compounds were undetected in the associated sample. No further corrective action was required.

Several LCSD percent recoveries were outside the control limits high for **LCS-110508**. All LCS percent recoveries were within the control limits. No further corrective action was required.



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

The LCS and LCSD percent recoveries of 1-Methylnaphthalene were outside the control limits high for **LCS-110508**. The outliers were allowed as marginal exceedances. No further corrective action was required.

*There were no anomalies associated with the SIM PAH analysis.*

*There were no anomalies associated with the PCBs analyses.*

**NWTPH-HCID Analyses:** Please note that all samples that were detected for Diesel or Motor Oil were re-analyzed by method NWTPH-Dx.

*There were no anomalies associated with the NWPH-Dx analysis.*

*There were no anomalies associated with the Metals analyses.*

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

20X93



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

Date 11/3/08  
 Page 1 of 1

# Chain-of-Custody Record

Project Name Boring Thompson Project No. 025073  
 Project Location/Event Seattle / Phase II  
 Sampler's Name Elizabeth Poole / Mark Brunner  
 Project Contact Kathryn Hartley / Tim Sullivan  
 Send Results To K Hartley, T Sullivan, A Anderson

## Testing Parameters

Turnaround Time  
 Standard  
 Accelerated  
 \_\_\_\_\_

Sample I.D.	Date	Time	Matrix	No. of Containers	TRHCLD	PERMETHANOL	VOCs	Dis. Metals	PCBs	SVOCs	TRAH-SIM
TDP1-9'-081103	11/3/08	1210	S	7	X	X	X		X	X	X
TDP2-5'-081103		1300	S	7	X	X	X		X	X	X
TDP3-5'-081103		1200	S	7	X	X	X		X	X	X
TDP4-4'-081103		1235	S	7	X	X	X		X	X	X
TDP5-5'-081103		1510	S	7	X	X	X		X	X	X
TDP1-GW-081103		1300	W	16	X	X	X	X	X	X	X

Observations/Comments

\_\_\_ Allow water samples to settle, collect aliquot from clear portion

NWTPH-Dx:  
 run acid wash/silica gel cleanup  
 \_\_\_ run samples standardized to \_\_\_\_\_ product

\_\_\_ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):  
 non-preserved  
 preserved w/methanol  
 preserved w/sodium bisulfate  
 \_\_\_ Freeze upon receipt

\_\_\_ Dissolved metal water samples field filtered

Other: NICA metals & Cu  
11/3/08  
AS

Special Shipment/Handling or Storage Requirements		Method of Shipment	
<b>Relinquished by</b> <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>EA</u> Company Date <u>11/3/08</u> Time <u>12:20</u>	<b>Received by</b> <u>Lami Hayes</u> Signature <u>Lami Hayes</u> Printed Name <u>AS</u> Company Date <u>11.3.08</u> Time <u>16:20</u>	<b>Relinquished by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____	<b>Received by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Landau  
COC No: \_\_\_\_\_  
Assigned ARI Job No: NX93

Project Name: Boeing Thompson  
Delivered by: \_\_\_\_\_  
Tracking No: \_\_\_\_\_

**Preliminary Examination Phase:**

- Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO
- Were custody papers included with the cooler?  YES  NO
- Were custody papers properly filled out (ink, signed, etc.)  YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) 7.6, 7.4 °C

Cooler Accepted by: JH Date: 11-3-08 Time: 16:20

*Complete custody forms and attach all shipping documents*

**Log-In Phase:**

- Was a temperature blank included in the cooler?  YES  NO
- What kind of packing material was used? ice
- Was sufficient ice used (if appropriate)?  YES  NO
- Were all bottles sealed in individual plastic bags?  YES  NO
- Did all bottle arrive in good condition (unbroken)?  YES  NO
- Were all bottle labels complete and legible?  YES  NO
- Did all bottle labels and tags agree with custody papers?  YES  NO
- Were all bottles used correct for the requested analyses?  YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist)  YES  NO
- Were all VOC vials free of air bubbles?  YES  NO
- Was sufficient amount of sample sent in each bottle?  YES  NO

Samples Logged by: JH Date: 11-4-08 Time: 12:50

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

Explain discrepancies or negative responses:

By: \_\_\_\_\_ Date: \_\_\_\_\_

**Subject:** RE: HCID results for Thompson  
**From:** "Kathryn Hartley" <khartley@landauinc.com>  
**Date:** Wed, 12 Nov 2008 08:29:09 -0800  
**To:** "Kelly Bottem" <kellyb@arilabs.com>  
**CC:** "Tim Syverson" <tsyverson@landauinc.com>, "Anne Halvorsen" <AHalvorsen@landauinc.com>

Kelly,

Please add NWTPH-D analysis for the following samples:

NX93A (Landau sample ID TDP1-9-081103)

NX93B (Landau sample ID TDP2-5-081103)

NX93C (Landau sample ID TDP3-5-081103)

NX93D (Landau sample ID TDP4-4-081103)

Please confirm that you received this message.

Thank you,

Kathryn F. Hartley  
Senior Staff Scientist  
Landau Associates  
130 2nd Avenue South  
Edmonds, WA 98020  
(425) 329-0268

-----Original Message-----

From: Kelly Bottem [mailto:kellyb@arilabs.com]  
Sent: Tuesday, November 11, 2008 3:58 PM  
To: Kathryn Hartley; Tim Syverson  
Subject: HCID results for Thompson

--

Kelly Bottem, Client Services Manager  
Analytical Resources, Inc.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 1 of 1



Sample ID: TDP1-9-081103

SAMPLE

Lab Sample ID: NX93A

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/25/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Date Analyzed: 11/11/08 18:29

Sample Amount: 4.21 g-dry-wt

Purge Volume: 5.0 mL

Moisture: 19.9%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.2	< 1.2	U
74-83-9	Bromomethane	1.2	< 1.2	U
75-01-4	Vinyl Chloride	1.2	< 1.2	U
75-00-3	Chloroethane	1.2	< 1.2	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>2.4</b>	<b>7.7</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>5.9</b>	<b>280</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.2</b>	<b>7.7</b>	
75-35-4	1,1-Dichloroethene	1.2	< 1.2	U
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>1.2</b>	<b>1.6</b>	
<b>156-60-5</b>	<b>trans-1,2-Dichloroethene</b>	<b>1.2</b>	<b>2.6</b>	
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>1.2</b>	<b>74</b>	
67-66-3	Chloroform	1.2	< 1.2	U
107-06-2	1,2-Dichloroethane	1.2	< 1.2	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.9</b>	<b>53</b>	
71-55-6	1,1,1-Trichloroethane	1.2	< 1.2	U
56-23-5	Carbon Tetrachloride	1.2	< 1.2	U
108-05-4	Vinyl Acetate	5.9	< 5.9	U
75-27-4	Bromodichloromethane	1.2	< 1.2	U
78-87-5	1,2-Dichloropropane	1.2	< 1.2	U
10061-01-5	cis-1,3-Dichloropropene	1.2	< 1.2	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>1.2</b>	<b>6.2</b>	
124-48-1	Dibromochloromethane	1.2	< 1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	< 1.2	U
<b>71-43-2</b>	<b>Benzene</b>	<b>1.2</b>	<b>1.5</b>	
10061-02-6	trans-1,3-Dichloropropene	1.2	< 1.2	U
110-75-8	2-Chloroethylvinylether	5.9	< 5.9	U
75-25-2	Bromoform	1.2	< 1.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.9	< 5.9	U
591-78-6	2-Hexanone	5.9	< 5.9	U
127-18-4	Tetrachloroethene	1.2	< 1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	< 1.2	U
108-88-3	Toluene	1.2	< 1.2	U
108-90-7	Chlorobenzene	1.2	< 1.2	U
100-41-4	Ethylbenzene	1.2	< 1.2	U
100-42-5	Styrene	1.2	< 1.2	U
75-69-4	Trichlorofluoromethane	1.2	< 1.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.4	< 2.4	U
1330-20-7	m,p-Xylene	1.2	< 1.2	U
95-47-6	o-Xylene	1.2	< 1.2	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	88.2%
d8-Toluene	96.8%
Bromofluorobenzene	74.4%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP1-9-081103

Page 1 of 1

REANALYSIS

Lab Sample ID: NX93A

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29920

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: *[Signature]*

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.09 g-dry-wt

Date Analyzed: 11/12/08 12:21

Purge Volume: 5.0 mL

Moisture: 19.9%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.2	< 1.2	U
74-83-9	Bromomethane	1.2	< 1.2	U
75-01-4	Vinyl Chloride	1.2	< 1.2	U
75-00-3	Chloroethane	1.2	< 1.2	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>2.4</b>	<b>5.2</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>6.1</b>	<b>230</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.2</b>	<b>4.7</b>	
75-35-4	1,1-Dichloroethene	1.2	< 1.2	U
75-34-3	1,1-Dichloroethane	1.2	< 1.2	U
<b>156-60-5</b>	<b>trans-1,2-Dichloroethene</b>	<b>1.2</b>	<b>1.4</b>	
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>1.2</b>	<b>38</b>	
67-66-3	Chloroform	1.2	< 1.2	U
107-06-2	1,2-Dichloroethane	1.2	< 1.2	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>6.1</b>	<b>35</b>	
71-55-6	1,1,1-Trichloroethane	1.2	< 1.2	U
56-23-5	Carbon Tetrachloride	1.2	< 1.2	U
108-05-4	Vinyl Acetate	6.1	< 6.1	U
75-27-4	Bromodichloromethane	1.2	< 1.2	U
78-87-5	1,2-Dichloropropane	1.2	< 1.2	U
10061-01-5	cis-1,3-Dichloropropene	1.2	< 1.2	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>1.2</b>	<b>3.8</b>	
124-48-1	Dibromochloromethane	1.2	< 1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	< 1.2	U
71-43-2	Benzene	1.2	< 1.2	U
10061-02-6	trans-1,3-Dichloropropene	1.2	< 1.2	U
110-75-8	2-Chloroethylvinylether	6.1	< 6.1	U
75-25-2	Bromoform	1.2	< 1.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	6.1	< 6.1	U
591-78-6	2-Hexanone	6.1	< 6.1	U
127-18-4	Tetrachloroethene	1.2	< 1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	< 1.2	U
108-88-3	Toluene	1.2	< 1.2	U
108-90-7	Chlorobenzene	1.2	< 1.2	U
100-41-4	Ethylbenzene	1.2	< 1.2	U
100-42-5	Styrene	1.2	< 1.2	U
75-69-4	Trichlorofluoromethane	1.2	< 1.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.4	< 2.4	U
1330-20-7	m,p-Xylene	1.2	< 1.2	U
95-47-6	o-Xylene	1.2	< 1.2	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	94.3%
d8-Toluene	99.3%
Bromofluorobenzene	78.4%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP2-5-081103

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**SAMPLE**

Lab Sample ID: NX93B

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29921

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 6.09 g-dry-wt

Date Analyzed: 11/11/08 18:56

Purge Volume: 5.0 mL

Moisture: 7.8%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
75-09-2	Methylene Chloride	1.6	< 1.6	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.1</b>	<b>9.2</b>	
75-15-0	Carbon Disulfide	0.8	< 0.8	U
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
75-34-3	1,1-Dichloroethane	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
78-93-3	2-Butanone	4.1	< 4.1	U
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	4.1	< 4.1	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
71-43-2	Benzene	0.8	< 0.8	U
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	4.1	< 4.1	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.1	< 4.1	U
591-78-6	2-Hexanone	4.1	< 4.1	U
127-18-4	Tetrachloroethene	0.8	< 0.8	U
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
108-88-3	Toluene	0.8	< 0.8	U
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	< 1.6	U
1330-20-7	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	97.9%
d8-Toluene	100%
Bromofluorobenzene	94.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP3-5-081103  
SAMPLE

Lab Sample ID: NX93C

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29922

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.21 g-dry-wt

Date Analyzed: 11/11/08 19:23

Purge Volume: 5.0 mL

Moisture: 15.2%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	1.9	< 1.9	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.8</b>	<b>9.0</b>	
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	4.8	< 4.8	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	4.8	< 4.8	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	4.8	< 4.8	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.8	< 4.8	U
591-78-6	2-Hexanone	4.8	< 4.8	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.9	< 1.9	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	103%
d8-Toluene	102%
Bromofluorobenzene	97.3%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260B**

**Sample ID: TDP4-4-081103**

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**SAMPLE**

Lab Sample ID: NX93D

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29923

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.92 g-dry-wt

Date Analyzed: 11/11/08 19:50

Purge Volume: 5.0 mL

Moisture: 11.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.1</b>	<b>22</b>	
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.1	< 5.1	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.1	< 5.1	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.1	< 5.1	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.1	< 5.1	U
591-78-6	2-Hexanone	5.1	< 5.1	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	99.1%
d8-Toluene	97.2%
Bromofluorobenzene	86.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP4-4-081103

Page 1 of 1

MATRIX SPIKE

Lab Sample ID: NX93D

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29923

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.59 g-dry-wt

Date Analyzed: 11/11/08 21:10

Purge Volume: 5.0 mL

Moisture: 11.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	---	
74-83-9	Bromomethane	1.1	---	
75-01-4	Vinyl Chloride	1.1	---	
75-00-3	Chloroethane	1.1	---	
75-09-2	Methylene Chloride	2.2	---	
67-64-1	Acetone	5.4	---	
75-15-0	Carbon Disulfide	1.1	---	
75-35-4	1,1-Dichloroethene	1.1	---	
75-34-3	1,1-Dichloroethane	1.1	---	
156-60-5	trans-1,2-Dichloroethene	1.1	---	
156-59-2	cis-1,2-Dichloroethene	1.1	---	
67-66-3	Chloroform	1.1	---	
107-06-2	1,2-Dichloroethane	1.1	---	
78-93-3	2-Butanone	5.4	---	
71-55-6	1,1,1-Trichloroethane	1.1	---	
56-23-5	Carbon Tetrachloride	1.1	---	
108-05-4	Vinyl Acetate	5.4	---	
75-27-4	Bromodichloromethane	1.1	---	
78-87-5	1,2-Dichloropropane	1.1	---	
10061-01-5	cis-1,3-Dichloropropene	1.1	---	
79-01-6	Trichloroethene	1.1	---	
124-48-1	Dibromochloromethane	1.1	---	
79-00-5	1,1,2-Trichloroethane	1.1	---	
71-43-2	Benzene	1.1	---	
10061-02-6	trans-1,3-Dichloropropene	1.1	---	
110-75-8	2-Chloroethylvinylether	5.4	---	
75-25-2	Bromoform	1.1	---	
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.4	---	
591-78-6	2-Hexanone	5.4	---	
127-18-4	Tetrachloroethene	1.1	---	
79-34-5	1,1,2,2-Tetrachloroethane	1.1	---	
108-88-3	Toluene	1.1	---	
108-90-7	Chlorobenzene	1.1	---	
100-41-4	Ethylbenzene	1.1	---	
100-42-5	Styrene	1.1	---	
75-69-4	Trichlorofluoromethane	1.1	---	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2	---	
1330-20-7	m,p-Xylene	1.1	---	
95-47-6	o-Xylene	1.1	---	

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.3%
d8-Toluene	99.5%
Bromofluorobenzene	89.1%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP4-4-081103

Page 1 of 1

MATRIX SPIKE DUP

Lab Sample ID: NX93D

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29923

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: *[Signature]*

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.68 g-dry-wt

Date Analyzed: 11/11/08 21:37

Purge Volume: 5.0 mL

Moisture: 11.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	---	
74-83-9	Bromomethane	1.1	---	
75-01-4	Vinyl Chloride	1.1	---	
75-00-3	Chloroethane	1.1	---	
75-09-2	Methylene Chloride	2.1	---	
67-64-1	Acetone	5.4	---	
75-15-0	Carbon Disulfide	1.1	---	
75-35-4	1,1-Dichloroethene	1.1	---	
75-34-3	1,1-Dichloroethane	1.1	---	
156-60-5	trans-1,2-Dichloroethene	1.1	---	
156-59-2	cis-1,2-Dichloroethene	1.1	---	
67-66-3	Chloroform	1.1	---	
107-06-2	1,2-Dichloroethane	1.1	---	
78-93-3	2-Butanone	5.4	---	
71-55-6	1,1,1-Trichloroethane	1.1	---	
56-23-5	Carbon Tetrachloride	1.1	---	
108-05-4	Vinyl Acetate	5.4	---	
75-27-4	Bromodichloromethane	1.1	---	
78-87-5	1,2-Dichloropropane	1.1	---	
10061-01-5	cis-1,3-Dichloropropene	1.1	---	
79-01-6	Trichloroethene	1.1	---	
124-48-1	Dibromochloromethane	1.1	---	
79-00-5	1,1,2-Trichloroethane	1.1	---	
71-43-2	Benzene	1.1	---	
10061-02-6	trans-1,3-Dichloropropene	1.1	---	
110-75-8	2-Chloroethylvinylether	5.4	---	
75-25-2	Bromoform	1.1	---	
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.4	---	
591-78-6	2-Hexanone	5.4	---	
127-18-4	Tetrachloroethene	1.1	---	
79-34-5	1,1,2,2-Tetrachloroethane	1.1	---	
108-88-3	Toluene	1.1	---	
108-90-7	Chlorobenzene	1.1	---	
100-41-4	Ethylbenzene	1.1	---	
100-42-5	Styrene	1.1	---	
75-69-4	Trichlorofluoromethane	1.1	---	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.1	---	
1330-20-7	m,p-Xylene	1.1	---	
95-47-6	o-Xylene	1.1	---	

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	95.1%
d8-Toluene	96.4%
Bromofluorobenzene	87.1%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP5-5-081103

Page 1 of 1

SAMPLE

Lab Sample ID: NX93E

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29924

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: *MS*

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.74 g-dry-wt

Date Analyzed: 11/11/08 20:16

Purge Volume: 5.0 mL

Moisture: 8.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.1	< 2.1	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.3</b>	<b>45</b>	
75-15-0	Carbon Disulfide	1.1	< 1.1	U
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.3</b>	<b>7.6</b>	
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.3	< 5.3	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
71-43-2	Benzene	1.1	< 1.1	U
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.3	< 5.3	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.3	< 5.3	U
591-78-6	2-Hexanone	5.3	< 5.3	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
108-88-3	Toluene	1.1	< 1.1	U
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	2.1	< 2.1	U
1330-20-7	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	103%
Bromofluorobenzene	98.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP1-GW-081103

Page 1 of 1

SAMPLE

Lab Sample ID: NX93F

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29925

Project: BOEING THOMPSON

Matrix: Water

025173

Data Release Authorized: *[Signature]*

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 mL

Date Analyzed: 11/11/08 20:43

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	2.0	< 2.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.1%
d8-Toluene	101%
Bromofluorobenzene	97.4%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-110508

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-110508

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29925

Project: BOEING THOMPSON

Matrix: Water

025173

Data Release Authorized: 

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst: FINN3/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/05/08 14:58

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	89.2%
d8-Toluene	94.8%
Bromofluorobenzene	99.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-111108

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-111108

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29921

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: *[Signature]*

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 11/11/08 11:51

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	100%
Bromofluorobenzene	96.7%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-111208

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-111208

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29920

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 11/12/08 11:40

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	101%
Bromofluorobenzene	98.3%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.  
 Project: BOEING THOMPSON  
 025173

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-111208	Method Blank	Low	100%	101%	98.3%	NA	0
LCS-111208	Lab Control	Low	95.6%	101%	99.8%	NA	0
LCSD-111208	Lab Control Dup	Low	94.7%	99.9%	99.8%	NA	0
NX93A	TDP1-9-081103	Low	88.2%	96.8%	74.4%	NA	0
NX93ARE	TDP1-9-081103	Low	94.3%	99.3%	78.4%	NA	0
MB-111108	Method Blank	Low	101%	100%	96.7%	NA	0
LCS-111108	Lab Control	Low	96.1%	102%	101%	NA	0
LCSD-111108	Lab Control Dup	Low	99.2%	100%	100%	NA	0
NX93B	TDP2-5-081103	Low	97.9%	100%	94.9%	NA	0
NX93C	TDP3-5-081103	Low	103%	102%	97.3%	NA	0
NX93D	TDP4-4-081103	Low	99.1%	97.2%	86.5%	NA	0
NX93DMS	TDP4-4-081103	Low	98.3%	99.5%	89.1%	NA	0
NX93DMSD	TDP4-4-081103	Low	95.1%	96.4%	87.1%	NA	0
NX93E	TDP5-5-081103	Low	100%	103%	98.0%	NA	0

LCS/MB LIMITS

QC LIMITS

	Low	Med	Low	Med
SW8260B				
(DCE) = d4-1,2-Dichloroethane	75-120	76-120	72-134	69-120
(TOL) = d8-Toluene	80-122	80-120	78-124	80-120
(BFB) = Bromofluorobenzene	79-120	80-120	66-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	79-120	80-120

Log Number Range: 08-29920 to 08-29924

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: NX93-Landau Associates, Inc.  
 Project: BOEING THOMPSON  
 025173

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
NX93F	TDP1-GW-081103	5	98.1%	101%	97.4%	NA	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

79-120  
 80-120  
 80-120  
 80-120

80-120  
 80-120  
 72-120  
 80-124

Prep Method: SW5030B  
 Log Number Range: 08-29925 to 08-29925

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 1 of 2

Sample ID: LCS-110508

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110508

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29925

Project: BOEING THOMPSON

Matrix: Water

025173

Data Release Authorized:

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst LCS: FINN3/JZ

Sample Amount LCS: 20.0 mL

LCSD: FINN3/JZ

LCSD: 20.0 mL

Date Analyzed LCS: 11/05/08 14:02

Purge Volume LCS: 20.0 mL

LCSD: 11/05/08 14:36

LCSD: 20.0 mL

Analyte	Spike			LCS			RPD
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	
Chloromethane	3.3	4.0	82.5%	3.1	4.0	77.5%	6.2%
Bromomethane	3.6	4.0	90.0%	3.5	4.0	87.5%	2.8%
Vinyl Chloride	3.4	4.0	85.0%	3.4	4.0	85.0%	0.0%
Chloroethane	3.5	4.0	87.5%	3.4	4.0	85.0%	2.9%
Methylene Chloride	3.6	4.0	90.0%	3.4	4.0	85.0%	5.7%
Acetone	19.3	20.0	96.5%	22.3	20.0	112%	14.4%
Carbon Disulfide	3.2	4.0	80.0%	3.4	4.0	85.0%	6.1%
1,1-Dichloroethene	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
1,1-Dichloroethane	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
trans-1,2-Dichloroethene	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
cis-1,2-Dichloroethene	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
Chloroform	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
1,2-Dichloroethane	4.2	4.0	105%	3.8	4.0	95.0%	10.0%
2-Butanone	21.5	20.0	108%	21.8	20.0	109%	1.4%
1,1,1-Trichloroethane	3.9	4.0	97.5%	3.9	4.0	97.5%	0.0%
Carbon Tetrachloride	4.1	4.0	102%	4.2	4.0	105%	2.4%
Vinyl Acetate	3.0	4.0	75.0%	3.3	4.0	82.5%	9.5%
Bromodichloromethane	4.0	4.0	100%	4.0	4.0	100%	0.0%
1,2-Dichloropropane	4.1	4.0	102%	4.1	4.0	102%	0.0%
cis-1,3-Dichloropropene	4.1	4.0	102%	3.9	4.0	97.5%	5.0%
Trichloroethene	4.1	4.0	102%	4.1	4.0	102%	0.0%
Dibromochloromethane	4.6	4.0	115%	4.1	4.0	102%	11.5%
1,1,2-Trichloroethane	4.2	4.0	105%	3.7	4.0	92.5%	12.7%
Benzene	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
trans-1,3-Dichloropropene	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
2-Chloroethylvinylether	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
Bromoform	4.6	4.0	115%	4.4	4.0	110%	4.4%
4-Methyl-2-Pentanone (MIBK)	20.7	20.0	104%	19.9	20.0	99.5%	3.9%
2-Hexanone	22.4	20.0	112%	22.6	20.0	113%	0.9%
Tetrachloroethene	4.6	4.0	115%	4.7	4.0	118%	2.2%
1,1,2,2-Tetrachloroethane	4.1	4.0	102%	4.0	4.0	100%	2.5%
Toluene	4.1	4.0	102%	4.0	4.0	100%	2.5%
Chlorobenzene	4.5	4.0	112%	4.2	4.0	105%	6.9%
Ethylbenzene	4.3	4.0	108%	4.2	4.0	105%	2.4%
Styrene	4.5	4.0	112%	4.3	4.0	108%	4.5%
Trichlorofluoromethane	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%
1,1,2-Trichloro-1,2,2-trifluoroethane	3.6	4.0	90.0%	3.9	4.0	97.5%	8.0%
m,p-Xylene	8.8	8.0	110%	8.5	8.0	106%	3.5%
o-Xylene	4.5	4.0	112%	4.4	4.0	110%	2.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

LCS LCSD

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: LCS-110508  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-110508  
LIMS ID: 08-29925  
Matrix: Water

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

Analyte	LCS	Spike	LCS	LCSD	Spike	LCSD	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
d4-1,2-Dichloroethane			86.2%	86.5%			
d8-Toluene			95.2%	97.5%			
Bromofluorobenzene			102%	100%			

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111108

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111108

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29921

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: *B*

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCSID: FINN5/PAB

LCSID: 5.00 g-dry-wt

Date Analyzed LCS: 11/11/08 10:47

Purge Volume LCS: 5.0 mL

LCSID: 11/11/08 12:39

LCSID: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSID	Spike Added-LCSID	LCSID Recovery	RPD
Chloromethane	49.2	50.0	98.4%	45.9	50.0	91.8%	6.9%
Bromomethane	51.6	50.0	103%	49.2	50.0	98.4%	4.8%
Vinyl Chloride	53.2	50.0	106%	50.6	50.0	101%	5.0%
Chloroethane	47.8	50.0	95.6%	45.2	50.0	90.4%	5.6%
Methylene Chloride	48.7	50.0	97.4%	46.8	50.0	93.6%	4.0%
Acetone	198	250	79.2%	186	250	74.4%	6.2%
Carbon Disulfide	55.4	50.0	111%	51.5	50.0	103%	7.3%
1,1-Dichloroethene	53.6	50.0	107%	50.8	50.0	102%	5.4%
1,1-Dichloroethane	52.7	50.0	105%	49.9	50.0	99.8%	5.5%
trans-1,2-Dichloroethene	52.4	50.0	105%	50.2	50.0	100%	4.3%
cis-1,2-Dichloroethene	54.3	50.0	109%	49.7	50.0	99.4%	8.8%
Chloroform	53.2	50.0	106%	49.5	50.0	99.0%	7.2%
1,2-Dichloroethane	48.7	50.0	97.4%	46.6	50.0	93.2%	4.4%
2-Butanone	216	250	86.4%	210	250	84.0%	2.8%
1,1,1-Trichloroethane	50.9	50.0	102%	48.1	50.0	96.2%	5.7%
Carbon Tetrachloride	51.5	50.0	103%	47.8	50.0	95.6%	7.5%
Vinyl Acetate	46.6	50.0	93.2%	45.9	50.0	91.8%	1.5%
Bromodichloromethane	50.9	50.0	102%	48.0	50.0	96.0%	5.9%
1,2-Dichloropropane	50.4	50.0	101%	46.9	50.0	93.8%	7.2%
cis-1,3-Dichloropropene	50.6	50.0	101%	47.5	50.0	95.0%	6.3%
Trichloroethene	52.7	50.0	105%	50.0	50.0	100%	5.3%
Dibromochloromethane	51.7	50.0	103%	48.1	50.0	96.2%	7.2%
1,1,2-Trichloroethane	49.0	50.0	98.0%	47.2	50.0	94.4%	3.7%
Benzene	56.5	50.0	113%	53.4	50.0	107%	5.6%
trans-1,3-Dichloropropene	49.2	50.0	98.4%	46.6	50.0	93.2%	5.4%
2-Chloroethylvinylether	48.2	50.0	96.4%	45.6	50.0	91.2%	5.5%
Bromoform	46.7	50.0	93.4%	43.8	50.0	87.6%	6.4%
4-Methyl-2-Pentanone (MIBK)	212	250	84.8%	212	250	84.8%	0.0%
2-Hexanone	196	250	78.4%	187	250	74.8%	4.7%
Tetrachloroethene	55.2	50.0	110%	50.1	50.0	100%	9.7%
1,1,2,2-Tetrachloroethane	45.9	50.0	91.8%	43.5	50.0	87.0%	5.4%
Toluene	52.5	50.0	105%	50.1	50.0	100%	4.7%
Chlorobenzene	54.8	50.0	110%	50.5	50.0	101%	8.2%
Ethylbenzene	59.5	50.0	119%	55.2	50.0	110%	7.5%
Styrene	56.0	50.0	112%	52.0	50.0	104%	7.4%
Trichlorofluoromethane	49.8	50.0	99.6%	49.4	50.0	98.8%	0.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	55.4	50.0	111%	51.7	50.0	103%	6.9%
m,p-Xylene	115	100	115%	102	100	102%	12.0%
o-Xylene	53.4	50.0	107%	49.4	50.0	98.8%	7.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111108

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111108

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29921

Project: BOEING THOMPSON

Matrix: Soil

025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
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Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	96.1%	99.2%
d8-Toluene	102%	100%
Bromofluorobenzene	101%	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111208

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111208

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29920

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCSID: FINN5/PAB

LCSID: 5.00 g-dry-wt

Date Analyzed LCS: 11/12/08 10:39

Purge Volume LCS: 5.0 mL

LCSID: 11/12/08 11:13

LCSID: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSID	Spike Added-LCSID	LCSID Recovery	RPD
Chloromethane	44.0	50.0	88.0%	47.4	50.0	94.8%	7.4%
Bromomethane	35.6	50.0	71.2%	38.5	50.0	77.0%	7.8%
Vinyl Chloride	45.4	50.0	90.8%	49.9	50.0	99.8%	9.4%
Chloroethane	42.7	50.0	85.4%	47.8	50.0	95.6%	11.3%
Methylene Chloride	45.7	50.0	91.4%	48.8	50.0	97.6%	6.6%
Acetone	202	250	80.8%	212	250	84.8%	4.8%
Carbon Disulfide	57.6	50.0	115%	63.0	50.0	126%	9.0%
1,1-Dichloroethene	50.0	50.0	100%	54.3	50.0	109%	8.2%
1,1-Dichloroethane	48.0	50.0	96.0%	52.1	50.0	104%	8.2%
trans-1,2-Dichloroethene	48.3	50.0	96.6%	52.5	50.0	105%	8.3%
cis-1,2-Dichloroethene	49.0	50.0	98.0%	53.2	50.0	106%	8.2%
Chloroform	47.2	50.0	94.4%	50.0	50.0	100%	5.8%
1,2-Dichloroethane	42.8	50.0	85.6%	44.8	50.0	89.6%	4.6%
2-Butanone	228	250	91.2%	244	250	97.6%	6.8%
1,1,1-Trichloroethane	46.5	50.0	93.0%	49.9	50.0	99.8%	7.1%
Carbon Tetrachloride	44.8	50.0	89.6%	48.4	50.0	96.8%	7.7%
Vinyl Acetate	50.5	50.0	101%	54.4	50.0	109%	7.4%
Bromodichloromethane	49.0	50.0	98.0%	52.5	50.0	105%	6.9%
1,2-Dichloropropane	46.7	50.0	93.4%	49.8	50.0	99.6%	6.4%
cis-1,3-Dichloropropene	50.2	50.0	100%	53.6	50.0	107%	6.6%
Trichloroethene	47.1	50.0	94.2%	50.2	50.0	100%	6.4%
Dibromochloromethane	53.2	50.0	106%	56.2	50.0	112%	5.5%
1,1,2-Trichloroethane	46.9	50.0	93.8%	50.3	50.0	101%	7.0%
Benzene	49.3	50.0	98.6%	52.9	50.0	106%	7.0%
trans-1,3-Dichloropropene	50.1	50.0	100%	54.3	50.0	109%	8.0%
2-Chloroethylvinylether	52.5	50.0	105%	55.0	50.0	110%	4.7%
Bromoform	51.8	50.0	104%	57.3	50.0	115%	10.1%
4-Methyl-2-Pentanone (MIBK)	221	250	88.4%	246	250	98.4%	10.7%
2-Hexanone	200	250	80.0%	228	250	91.2%	13.1%
Tetrachloroethene	47.5	50.0	95.0%	51.2	50.0	102%	7.5%
1,1,2,2-Tetrachloroethane	46.9	50.0	93.8%	50.9	50.0	102%	8.2%
Toluene	47.0	50.0	94.0%	50.2	50.0	100%	6.6%
Chlorobenzene	48.4	50.0	96.8%	52.0	50.0	104%	7.2%
Ethylbenzene	51.0	50.0	102%	55.0	50.0	110%	7.5%
Styrene	49.7	50.0	99.4%	53.8	50.0	108%	7.9%
Trichlorofluoromethane	45.4	50.0	90.8%	49.4	50.0	98.8%	8.4%
1,1,2-Trichloro-1,2,2-trifluoroethane	48.2	50.0	96.4%	52.0	50.0	104%	7.6%
m,p-Xylene	99.0	100	99.0%	107	100	107%	7.8%
o-Xylene	47.6	50.0	95.2%	51.5	50.0	103%	7.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111208

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111208

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29920

Project: BOEING THOMPSON

Matrix: Soil

025173

Analyte	LCS	Spike	LCS	LCSD	Spike	LCSD	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	95.6%	94.7%
d8-Toluene	101%	99.9%
Bromofluorobenzene	99.8%	99.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP4-4-081103

Page 1 of 1

**MATRIX SPIKE**

Lab Sample ID: NX93D

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29923

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: 11/03/08

Reported: 11/25/08

Date Received: 11/03/08

Instrument/Analyst MS: FINN5/PAB

Sample Amount MS: 4.59 g-dry-wt

MSD: FINN5/PAB

MSD: 4.68 g-dry-wt

Date Analyzed MS: 11/11/08 21:10

Purge Volume MS: 5.0 mL

MSD: 11/11/08 21:37

MSD: 5.0 mL

Moisture: 11.1%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Chloromethane	< 1.0 U	53.3	54.5	97.8%	52.6	53.4	98.5%	1.3%
Bromomethane	< 1.0 U	31.0	54.5	56.9%	33.7	53.4	63.1%	8.3%
Vinyl Chloride	< 1.0 U	51.1	54.5	93.8%	50.6	53.4	94.8%	1.0%
Chloroethane	< 1.0 U	49.9	54.5	91.6%	48.9	53.4	91.6%	2.0%
Methylene Chloride	< 2.0 U	51.6	54.5	94.7%	50.2	53.4	94.0%	2.8%
Acetone	22.2	331	272	114%	300	267	104%	9.8%
Carbon Disulfide	< 1.0 U	55.0	54.5	101%	54.7	53.4	102%	0.5%
1,1-Dichloroethene	< 1.0 U	59.6	54.5	109%	59.7	53.4	112%	0.2%
1,1-Dichloroethane	< 1.0 U	53.9	54.5	98.9%	52.3	53.4	97.9%	3.0%
trans-1,2-Dichloroethene	< 1.0 U	51.0	54.5	93.6%	50.3	53.4	94.2%	1.4%
cis-1,2-Dichloroethene	< 1.0 U	51.3	54.5	94.1%	51.1	53.4	95.7%	0.4%
Chloroform	< 1.0 U	50.2	54.5	92.1%	49.6	53.4	92.9%	1.2%
1,2-Dichloroethane	< 1.0 U	46.0	54.5	84.4%	43.8	53.4	82.0%	4.9%
2-Butanone	< 5.1 U	322	272	118%	291	267	109%	10.1%
1,1,1-Trichloroethane	< 1.0 U	45.7	54.5	83.9%	46.6	53.4	87.3%	2.0%
Carbon Tetrachloride	< 1.0 U	41.9	54.5	76.9%	41.8	53.4	78.3%	0.2%
Vinyl Acetate	< 5.1 U	< 5.4 U	54.5	NA	< 5.4 U	53.4	NA	NA
Bromodichloromethane	< 1.0 U	47.5	54.5	87.2%	46.5	53.4	87.1%	2.1%
1,2-Dichloropropane	< 1.0 U	48.9	54.5	89.7%	47.8	53.4	89.5%	2.3%
cis-1,3-Dichloropropene	< 1.0 U	47.5	54.5	87.2%	46.8	53.4	87.6%	1.5%
Trichloroethene	< 1.0 U	80.9	54.5	148%	80.6	53.4	151%	0.4%
Dibromochloromethane	< 1.0 U	51.8	54.5	95.0%	51.8	53.4	97.0%	0.0%
1,1,2-Trichloroethane	< 1.0 U	40.1	54.5	73.6%	38.0	53.4	71.2%	5.4%
Benzene	< 1.0 U	51.9	54.5	95.2%	50.7	53.4	94.9%	2.3%
trans-1,3-Dichloropropene	< 1.0 U	46.5	54.5	85.3%	44.5	53.4	83.3%	4.4%
2-Chloroethylvinylether	< 5.1 U	55.7	54.5	102%	51.7	53.4	96.8%	7.4%
Bromoform	< 1.0 U	65.4	54.5	120%	67.4	53.4	126%	3.0%
4-Methyl-2-Pentanone (MIBK)	< 5.1 U	277	272	102%	250	267	93.6%	10.2%
2-Hexanone	< 5.1 U	298	272	110%	279	267	104%	6.6%
Tetrachloroethene	< 1.0 U	42.1	54.5	77.2%	43.4	53.4	81.3%	3.0%
1,1,2,2-Tetrachloroethane	< 1.0 U	< 1.1 U	54.5	NA	< 1.1 U	53.4	NA	NA
Toluene	< 1.0 U	43.8	54.5	80.4%	43.6	53.4	81.6%	0.5%
Chlorobenzene	< 1.0 U	43.3	54.5	79.4%	45.1	53.4	84.5%	4.1%
Ethylbenzene	< 1.0 U	44.3	54.5	81.3%	45.9	53.4	86.0%	3.5%
Styrene	< 1.0 U	40.6	54.5	74.5%	41.6	53.4	77.9%	2.4%
Trichlorofluoromethane	< 1.0 U	47.8	54.5	87.7%	47.4	53.4	88.8%	0.8%
1,1,2-Trichloro-1,2,2-trifl	< 2.0 U	46.7	54.5	85.7%	46.8	53.4	87.6%	0.2%
m,p-Xylene	< 1.0 U	84.4	109	77.4%	86.5	107	80.8%	2.5%
o-Xylene	< 1.0 U	39.2	54.5	71.9%	40.6	53.4	76.0%	3.5%

Reported in µg/kg (ppb)

NA-No recovery due to high concentration of analyte in original sample, calculated negative recovery, or undetected spike.  
RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP1-GW-081103

**SAMPLE**

Lab Sample ID: NX93F

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29925

Project: BOEING THOMPSON

Matrix: Water

Event: 025173

Data Release Authorized: *[Signature]*

Date Sampled: 11/03/08

Reported: 11/10/08

Date Received: 11/03/08

Date Extracted: 11/05/08

Sample Amount: 500 mL

Date Analyzed: 11/08/08 13:11

Final Extract Volume: 0.5 mL

Instrument/Analyst: NT1/VTS

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	0.13
91-57-6	2-Methylnaphthalene	0.10	5.8
90-12-0	1-Methylnaphthalene	0.10	4.4
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	8.6
86-73-7	Fluorene	0.10	0.62
85-01-8	Phenanthrene	0.10	1.2
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U
191-24-2	Benzo(g,h,i)perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 66.0%  
d14-Dibenzo(a,h)anthracene 69.3%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-110508	61.0%	86.3%	0
LCS-110508	64.0%	88.7%	0
LCSD-110508	66.3%	87.3%	0
TDP1-GW-081103	66.0%	69.3%	0

**LCS/MB LIMITS      QC LIMITS**

(MNP) = d10-2-Methylnaphthalene      (49-113)      (44-112)  
(DBA) = d14-Dibenzo(a,h)anthracene      (49-132)      (10-138)

Prep Method: SW3520C  
Log Number Range: 08-29925 to 08-29925

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-110508

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110508

LIMS ID: 08-29925

Matrix: Water

Data Release Authorized: 

Reported: 11/10/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

Event: 025173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/05/08

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 11/08/08 12:21

Final Extract Volume LCS: 0.50 mL

LCSD: 11/08/08 12:46

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/VTS

Dilution Factor LCS: 1.00

LCSD: NT1/VTS

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	1.83	3.00	61.0%	1.93	3.00	64.3%	5.3%
2-Methylnaphthalene	1.84	3.00	61.3%	1.98	3.00	66.0%	7.3%
1-Methylnaphthalene	1.77	3.00	59.0%	1.89	3.00	63.0%	6.6%
Acenaphthylene	2.04	3.00	68.0%	2.02	3.00	67.3%	1.0%
Acenaphthene	1.97	3.00	65.7%	2.00	3.00	66.7%	1.5%
Fluorene	2.11	3.00	70.3%	2.13	3.00	71.0%	0.9%
Phenanthrene	2.19	3.00	73.0%	2.27	3.00	75.7%	3.6%
Anthracene	2.13	3.00	71.0%	2.20	3.00	73.3%	3.2%
Fluoranthene	2.39	3.00	79.7%	2.43	3.00	81.0%	1.7%
Pyrene	2.59	3.00	86.3%	2.61	3.00	87.0%	0.8%
Benzo(a)anthracene	2.34	3.00	78.0%	2.31	3.00	77.0%	1.3%
Chrysene	2.36	3.00	78.7%	2.42	3.00	80.7%	2.5%
Benzo(b)fluoranthene	2.42	3.00	80.7%	2.34	3.00	78.0%	3.4%
Benzo(k)fluoranthene	2.42	3.00	80.7%	2.63	3.00	87.7%	8.3%
Benzo(a)pyrene	2.35	3.00	78.3%	2.35	3.00	78.3%	0.0%
Indeno(1,2,3-cd)pyrene	2.42	3.00	80.7%	2.47	3.00	82.3%	2.0%
Dibenz(a,h)anthracene	2.47	3.00	82.3%	2.44	3.00	81.3%	1.2%
Benzo(g,h,i)perylene	2.40	3.00	80.0%	2.52	3.00	84.0%	4.9%
Dibenzofuran	2.05	3.00	68.3%	2.11	3.00	70.3%	2.9%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	64.0%	66.3%
d14-Dibenzo(a,h)anthracene	88.7%	87.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-110508

METHOD BLANK

Lab Sample ID: MB-110508

LIMS ID: 08-29925

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/10/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

Event: 025173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/05/08

Date Analyzed: 11/08/08 11:57

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U
191-24-2	Benzo(g,h,i)perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 61.0%  
d14-Dibenzo(a,h)anthracene 86.3%

ORGANICS ANALYSIS DATA SHEET

PCB by GC/ECD Method SW8082

Page 1 of 1



Sample ID: TDP1-9-081103  
SAMPLE

Lab Sample ID: NX93A

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: VTS

Reported: 11/15/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON  
025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 09:06

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 19.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	90.2%
Tetrachlorometaxylene	93.0%

**SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-111008	94.2%	30-160	95.5%	30-160	0
LCS-111008	95.5%	30-160	94.5%	30-160	0
LCSD-111008	98.5%	30-160	94.8%	30-160	0
TDP1-9-081103	90.2%	30-160	93.0%	30-160	0
TDP1-9-081103 MS	95.2%	30-160	92.5%	30-160	0
TDP1-9-081103 MSD	95.0%	30-160	94.0%	30-160	0

Microwave (MARS) Control Limits  
Prep Method: SW3546  
Log Number Range: 08-29920 to 08-29920

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP1-9-081103  
MS/MSD

Lab Sample ID: NX93A

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: *VTS*

Reported: 11/15/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Date Extracted MS/MSD: 11/10/08

Sample Amount MS: 12.0 g-dry-wt

MSD: 12.4 g-dry-wt

Date Analyzed MS: 11/12/08 09:23

Final Extract Volume MS: 4.0 mL

MSD: 11/12/08 09:40

MSD: 4.0 mL

Instrument/Analyst MS: ECD5/JGR

Dilution Factor MS: 1.00

MSD: ECD5/JGR

MSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: Yes

Percent Moisture: 19.9%

Acid Cleanup: Yes

Florisil Cleanup: No

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 33.3 U	121	166	72.9%	120	161	74.5%	0.8%
Aroclor 1260	< 33.3 U	145	166	87.3%	142	161	88.2%	2.1%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP1-9-081103  
MATRIX SPIKE

Lab Sample ID: NX93A

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: VTS

Reported: 11/15/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 09:23

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 19.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	---
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	---
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	95.2%
Tetrachlorometaxylene	92.5%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP1-9-081103

MATRIX SPIKE DUP

Lab Sample ID: NX93A

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: VTS

Reported: 11/15/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 09:40

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 19.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	---
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	---
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	95.0%
Tetrachlorometaxylene	94.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-111008

LCS/LCSD

Lab Sample ID: LCS-111008

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: VTS

Reported: 11/15/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/10/08

Sample Amount LCS: 12.0 g-dry-wt

LCSD: 12.0 g-dry-wt

Date Analyzed LCS: 11/12/08 08:32

Final Extract Volume LCS: 4.0 mL

LCSD: 11/12/08 08:49

LCSD: 4.0 mL

Instrument/Analyst LCS: ECD5/JGR

Dilution Factor LCS: 1.00

LCSD: ECD5/JGR

LCSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: Yes

Percent Moisture: NA

Acid Cleanup: Yes

Florisil Cleanup: No

Analyte	LCS	Spike		LCS Recovery	LCSD	Spike		LCSD Recovery	RPD
		Added-LCS	LCS			Added-LCSD	LCSD		
Aroclor 1016	139	167	83.4%	144	167	86.4%	3.5%		
Aroclor 1260	155	167	93.0%	161	167	96.6%	3.8%		

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	95.5%	98.5%
Tetrachlorometaxylene	94.5%	94.8%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

**PCB by GC/ECD Method SW8082**

Page 1 of 1

Sample ID: MB-111008

METHOD BLANK

Lab Sample ID: MB-111008

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: **VTS**

Reported: 11/15/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 08:15

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	94.2%
Tetrachlorometaxylene	95.5%

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

**Sample ID: TDP1-GW-081103**  
**SAMPLE**

Lab Sample ID: NX93F  
 LIMS ID: 08-29925  
 Matrix: Water  
 Data Release Authorized: *RB*  
 Reported: 11/11/08

QC Report No: NX93-Landau Associates, Inc.  
 Project: BOEING THOMPSON  
 025173  
 Date Sampled: 11/03/08  
 Date Received: 11/03/08

Date Extracted: 11/05/08  
 Date Analyzed: 11/07/08 18:23  
 Instrument/Analyst: ECD5/JGR  
 GPC Cleanup: No  
 Sulfur Cleanup: No

Sample Amount: 500 mL  
 Final Extract Volume: 5.0 mL  
 Dilution Factor: 1.00  
 Silica Gel: No  
 Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	61.5%
Tetrachlorometaxylene	82.5%

**SW8082/PCB WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-110508	81.5%	47-101	75.5%	61-104	0
LCS-110508	98.5%	47-101	91.0%	61-104	0
LCSD-110508	75.2%	47-101	87.5%	61-104	0
TDP1-GW-081103	61.5%	42-120	82.5%	55-102	0

Prep Method: SW3510C  
Log Number Range: 08-29925 to 08-29925

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

Sample ID: LCS-110508  
 LCS/LCSD

Lab Sample ID: LCS-110508  
 LIMS ID: 08-29925  
 Matrix: Water  
 Data Release Authorized: *[Signature]*  
 Reported: 11/11/08

QC Report No: NX93-Landau Associates, Inc.  
 Project: BOEING THOMPSON  
 025173  
 Date Sampled: NA  
 Date Received: NA

Date Extracted LCS/LCSD: 11/05/08

Sample Amount LCS: 500 mL  
 LCSD: 500 mL

Date Analyzed LCS: 11/07/08 17:49  
 LCSD: 11/07/08 18:06

Final Extract Volume LCS: 5.0 mL  
 LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/JGR  
 LCSD: ECD5/JGR

Dilution Factor LCS: 1.00  
 LCSD: 1.00

GPC Cleanup: No  
 Sulfur Cleanup: No

Silica Gel: No  
 Acid Cleanup: No

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	LCSD		
Aroclor 1016	4.52	5.00	90.4%	4.22	5.00	84.4%	6.9%		
Aroclor 1260	4.84	5.00	96.8%	4.69	5.00	93.8%	3.1%		

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	98.5%	75.2%
Tetrachlorometaxylene	91.0%	87.5%

Results reported in  $\mu\text{g/L}$   
 RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

**Sample ID: MB-110508**  
**METHOD BLANK**

Lab Sample ID: MB-110508  
 LIMS ID: 08-29925  
 Matrix: Water  
 Data Release Authorized: *AB*  
 Reported: 11/11/08

QC Report No: NX93-Landau Associates, Inc.  
 Project: BOEING THOMPSON  
 025173  
 Date Sampled: NA  
 Date Received: NA

Date Extracted: 11/05/08  
 Date Analyzed: 11/07/08 17:32  
 Instrument/Analyst: ECD5/JGR  
 GPC Cleanup: No  
 Sulfur Cleanup: No

Sample Amount: 500 mL  
 Final Extract Volume: 5.0 mL  
 Dilution Factor: 1.00  
 Silica Gel: No  
 Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	81.5%
Tetrachlorometaxylene	75.5%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 1

Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Data Release Authorized:

Reported: 11/11/08 

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
NX93A 08-29920	TDP1-9-081103 HC ID: <b>MOTOR OIL</b>	11/05/08	11/08/08	1.0	Gas Diesel <b>Oil</b> o-Terphenyl	< 20 U < 50 U > 100 89.8%
MB-110508 08-29921	Method Blank	11/05/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 86.2%
NX93B 08-29921	TDP2-5-081103 HC ID: ---	11/05/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 89.6%
NX93BDP 08-29921	TDP2-5-081103 HC ID: <b>DRO/MOTOR OIL</b>	11/05/08	11/08/08	1.0	Gas Diesel <b>Oil</b> o-Terphenyl	< 20 U < 50 U > 100 91.1%
NX93C 08-29922	TDP3-5-081103 HC ID: <b>DRO/MOTOR OIL</b>	11/05/08	11/08/08	2.0	Gas <b>Diesel</b> <b>Oil</b> o-Terphenyl	< 23 U > 57 > 110 89.9%
NX93D 08-29923	TDP4-4-081103 HC ID: <b>DRO/MOTOR OIL</b>	11/05/08	11/08/08	2.0	Gas <b>Diesel</b> <b>Oil</b> o-Terphenyl	< 21 U > 53 > 110 89.6%
NX93E 08-29924	TDP5-5-081103 HC ID: ---	11/05/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 91.5%

Reported in mg/kg (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a055.d  
Method: /chem3/fid3a.i/20081107.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/11/2008  
Macro: FID:3A1111b08

ARI ID: NX75MBS1  
Client ID: NX75MBS1  
Injection: 08-NOV-2008 02:14  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.796	0.001	236227	37589	GAS (Tol-C12)	1369467	3
C8	1.892	0.000	18003	11740	DIESEL (C12-C24)	191830	11
C10	2.444	-0.001	5777	6644	M.OIL (C24-C38)	680321	54
C12	2.909	-0.003	2644	2757	AK-102 (C10-C25)	318999	15
C14	3.324	-0.001	1838	1137	AK-103 (C25-C36)	533035	58
C16	3.708	0.004	1334	1452	OR.DIES (C10-C28)	431188	20
C18	4.129	-0.001	969	249	OR.MOIL (C28-C40)	719496	77
C20	4.544	-0.004	1405	798	JET-A (C10-C18)	221247	13
C22	4.905	0.002	1430	454	MIN.OIL (C24-C38)	680321	53
C24	5.205	-0.003	2622	2654	MSPRIT (Tol-C12)	1369467	87
C25	5.353	0.008	3133	3757			
C26	5.480	0.005	4128	3646			
C28	5.714	-0.001	7792	7609			
C32	6.154	-0.001	8317	2457			
C34	6.398	0.001	7991	2524			
Filter Peak	8.445	-0.002	5473	4151	JP-4 (Tol-C14)	1416780	125
C36	6.687	0.008	7016	2228	CREOSOT (C8-C22)	570081	91
C38	7.032	0.003	6511	2451			
C40	7.491	0.004	6295	8186	BUNKERC (C10-C38)	992390	111
AZDIESEL (C10-C22)			244432	15			
AZMOIL (C22-C32)			337828	52			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	804961	38.8	86.2
Triacontane	761408	39.0	86.8

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	399990.8	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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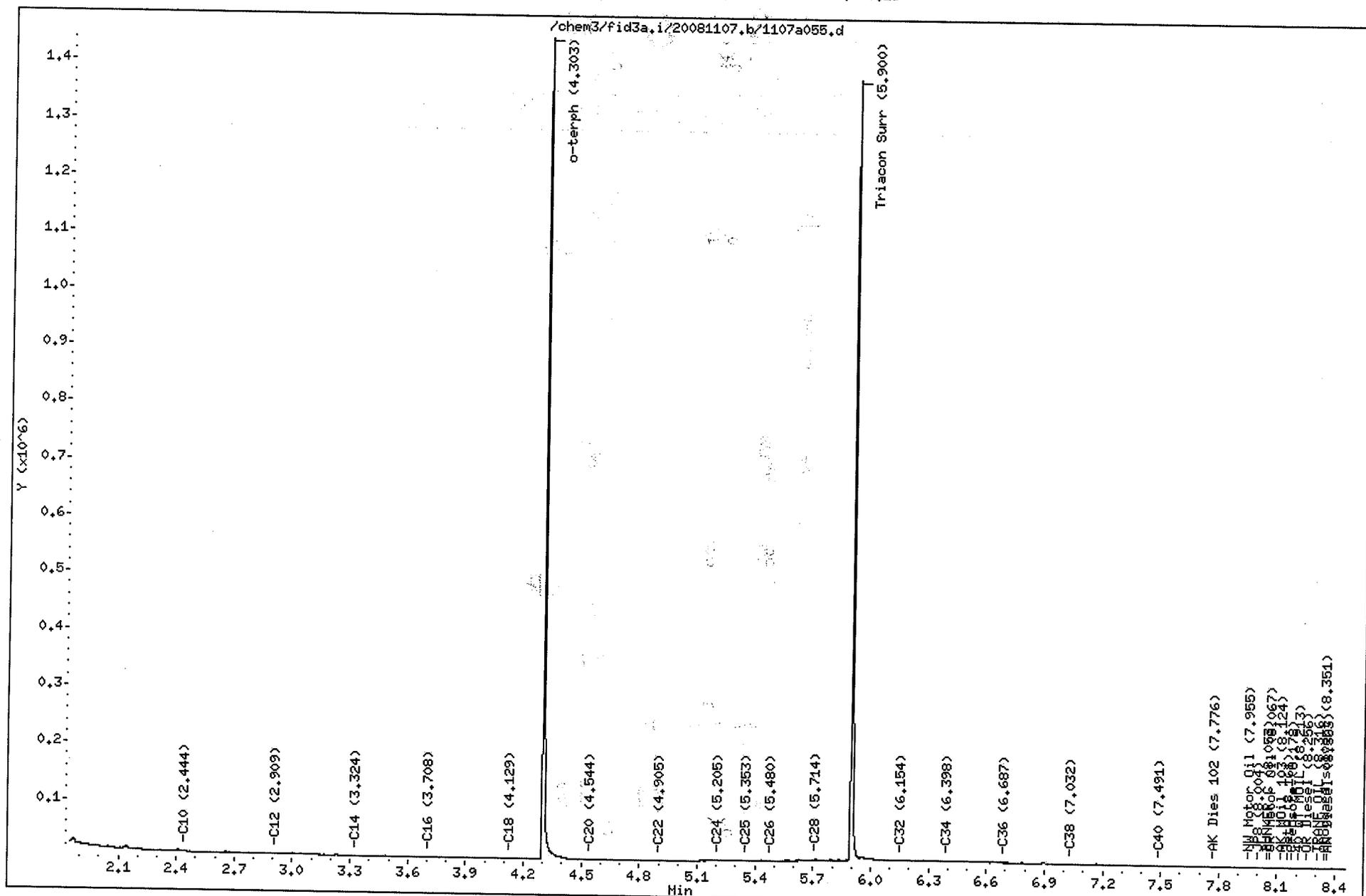
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Instrument: fid3a.i

Operator: ms

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Analytical Resources Inc.  
TPH Quantitation Report

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Operator: ms  
Report Date: 11/11/2008  
Macro: FID:3A1111b08

ARI ID: NX93A  
Client ID: TDP1-9-081103  
Injection: 08-NOV-2008 06:53  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.802	0.007	218579	198992	GAS (Tol-C12)	1601791	4
C8	1.895	0.004	16294	8439	DIESEL (C12-C24)	835028	49
C10	2.438	-0.007	5686	9067	M.OIL (C24-C38)	6280249	498
C12	2.909	-0.003	2705	3543	AK-102 (C10-C25)	1017188	47
C14	3.327	0.003	2365	4028	AK-103 (C25-C36)	5128724	560
C16	3.705	0.001	2163	2632	OR.DIES (C10-C28)	2427311	115
C18	4.131	0.002	2603	1479	OR.MOIL (C28-C40)	5854176	625
C20	4.551	0.004	6774	10005	JET-A (C10-C18)	268751	16
C22	4.901	-0.001	12254	4631	MIN.OIL (C24-C38)	6280249	490
C24	5.207	0.000	28471	6738	MSPRIT (Tol-C12)	1601791	101
C25	5.344	-0.001	37416	12510			
C26	5.478	0.003	46208	8229			
C28	5.716	0.001	62918	9974			
C32	6.153	-0.003	69822	47607			
C34	6.393	-0.003	66598	58139			
Filter Peak	8.449	0.002	18885	8123	JP-4 (Tol-C14)	1654841	146
C36	6.683	0.004	57421	11274	CREOSOT (C8-C22)	823372	132
C38	7.027	-0.003	48900	27061			
C40	7.484	-0.003	34622	9462	BUNKERC (C10-C38)	7230763	809
AZDIESEL (C10-C22)			527937	33			
AZMOIL (C22-C32)			3715223	577			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	838584	40.4	89.8
Triacontane	762379	39.1	86.9

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	399990.8	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107,b/1107a074.d

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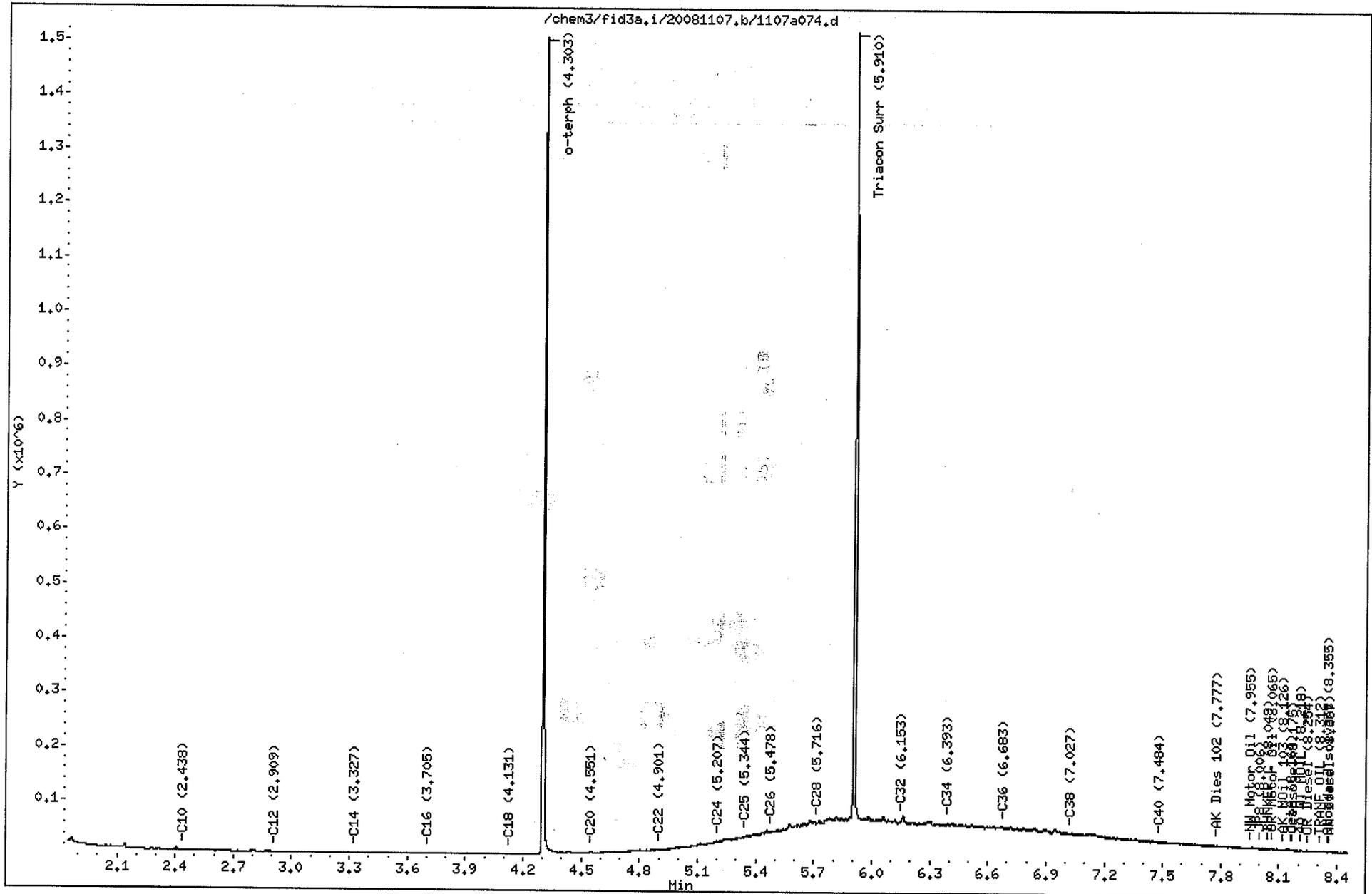
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Operator: ms

Column diameter: 0.25

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Analytical Resources Inc.  
TPH Quantitation Report

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Operator: ms  
Report Date: 11/11/2008  
Macro: FID:3A1111b08

ARI ID: NX93B  
Client ID: TDP2-5-081103  
Injection: 08-NOV-2008 07:23  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.788	-0.007	252126	306099	GAS (Tol-C12)	1385686	3
C8	1.893	0.002	16177	9286	DIESEL (C12-C24)	522899	31
C10	2.437	-0.008	5511	8836	M.OIL (C24-C38)	2139449	170
C12	2.909	-0.003	3977	2918	AK-102 (C10-C25)	654240	30
C14	3.327	0.002	4065	5185	AK-103 (C25-C36)	1750073	191
C16	3.706	0.001	3892	4605	OR.DIES (C10-C28)	1046448	49
C18	4.128	-0.002	5250	5687	OR.MOIL (C28-C40)	2103989	225
C20	4.545	-0.002	6144	8359	JET-A (C10-C18)	307997	18
C22	4.899	-0.004	7364	8380	MIN.OIL (C24-C38)	2139449	167
C24	5.214	0.006	7934	4540	MSPRIT (Tol-C12)	1385686	88
C25	5.345	0.000	9992	3375			
C26	5.474	-0.001	12648	7662			
C28	5.711	-0.004	19038	5280			
C32	6.156	0.000	25523	6571			
C34	6.397	0.000	25202	27006			
Filter Peak	8.452	0.004	8342	4762	JP-4 (Tol-C14)	1444785	127
C36	6.675	-0.004	22348	18655	CREOSOT (C8-C22)	748568	120
C38	7.028	-0.001	16563	3299			
C40	7.490	0.003	12327	4596	BUNKERC (C10-C38)	2776817	311
AZDIESEL (C10-C22)			488019	30			
AZMOIL (C22-C32)			1185415	184			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	836424	40.3	89.6
Triacontane	766305	39.3	87.3

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	399990.8	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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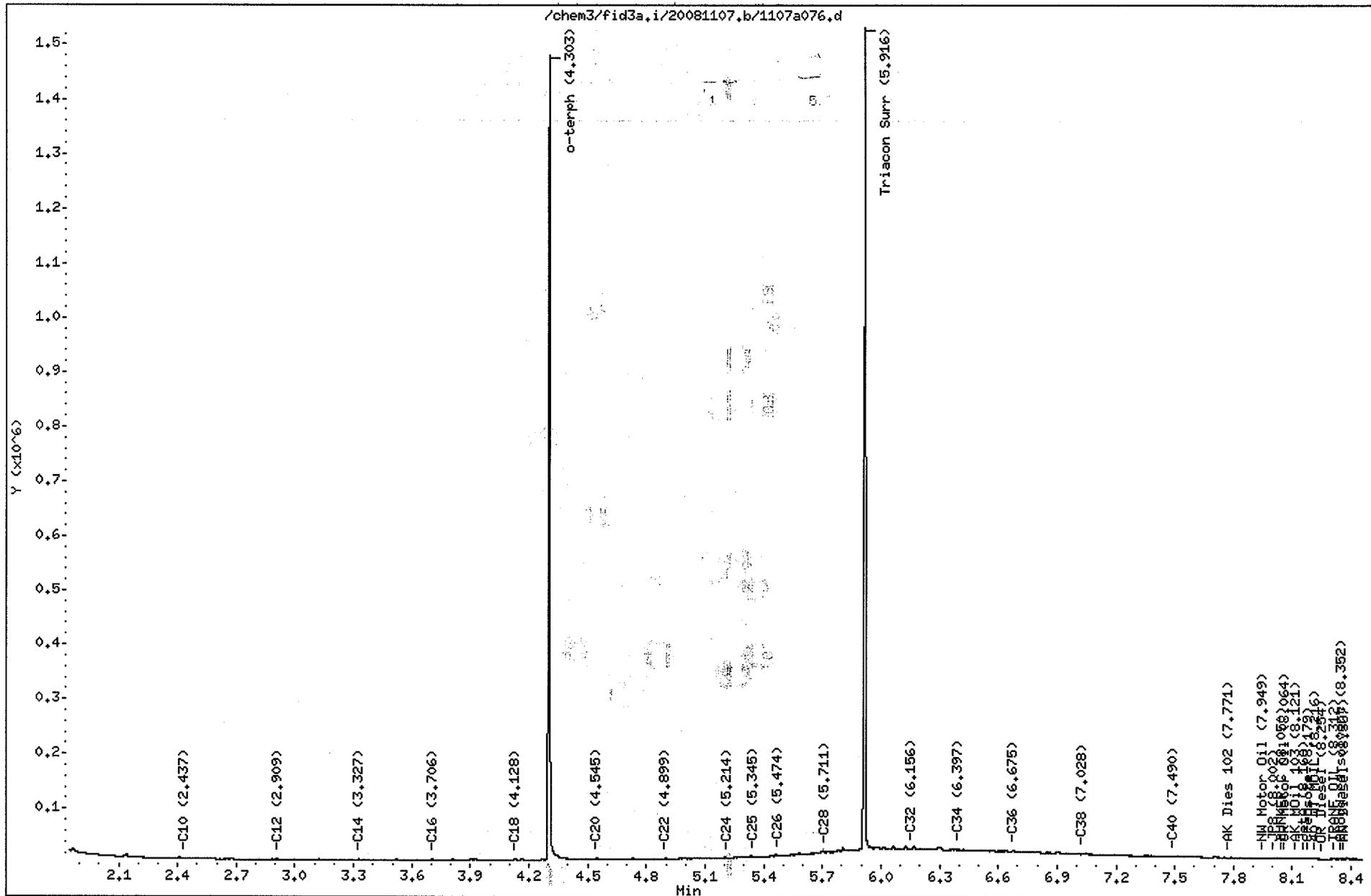
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Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

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Operator: ms  
Report Date: 11/11/2008  
Macro: FID:3A1111b08

ARI ID: NX93BDUP  
Client ID: TDP2-5-081103 DUP  
Injection: 08-NOV-2008 07:37  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.798	0.004	209699	218748	GAS (Tol-C12)	1219178	3
C8	1.888	-0.003	15519	10733	DIESEL (C12-C24)	716770	42
C10	2.435	-0.009	5184	6806	M.OIL (C24-C38)	2844622	225
C12	2.909	-0.003	4389	4220	AK-102 (C10-C25)	843199	39
C14	3.326	0.001	5198	5729	AK-103 (C25-C36)	2332399	255
C16	3.705	0.001	6365	6589	OR.DIES (C10-C28)	1367483	65
C18	4.128	-0.002	8331	7799	OR.MOIL (C28-C40)	2764573	295
C20	4.545	-0.002	10248	11066	JET-A (C10-C18)	341115	20
C22	4.899	-0.003	10959	12580	MIN.OIL (C24-C38)	2844622	222
C24	5.212	0.005	11112	2183	MSPRIT (Tol-C12)	1219178	77
C25	5.349	0.004	14152	6967			
C26	5.483	0.008	16464	3272			
C28	5.713	-0.002	25365	14662			
C32	6.159	0.003	35005	6211			
C34	6.397	0.001	33825	8540			
Filter Peak	8.448	0.001	8855	1944	JP-4 (Tol-C14)	1278911	113
C36	6.681	0.002	29457	11571	CREOSOT (C8-C22)	863249	138
C38	7.033	0.004	21948	10349			
C40	7.487	0.000	15882	4972	BUNKERC (C10-C38)	3663170	410
AZDIESEL (C10-C22)			617208	38			
AZMOIL (C22-C32)			1590325	247			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	850959	41.0	91.1
Triacontane	783612	40.2	89.3

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	399990.8	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a077.d

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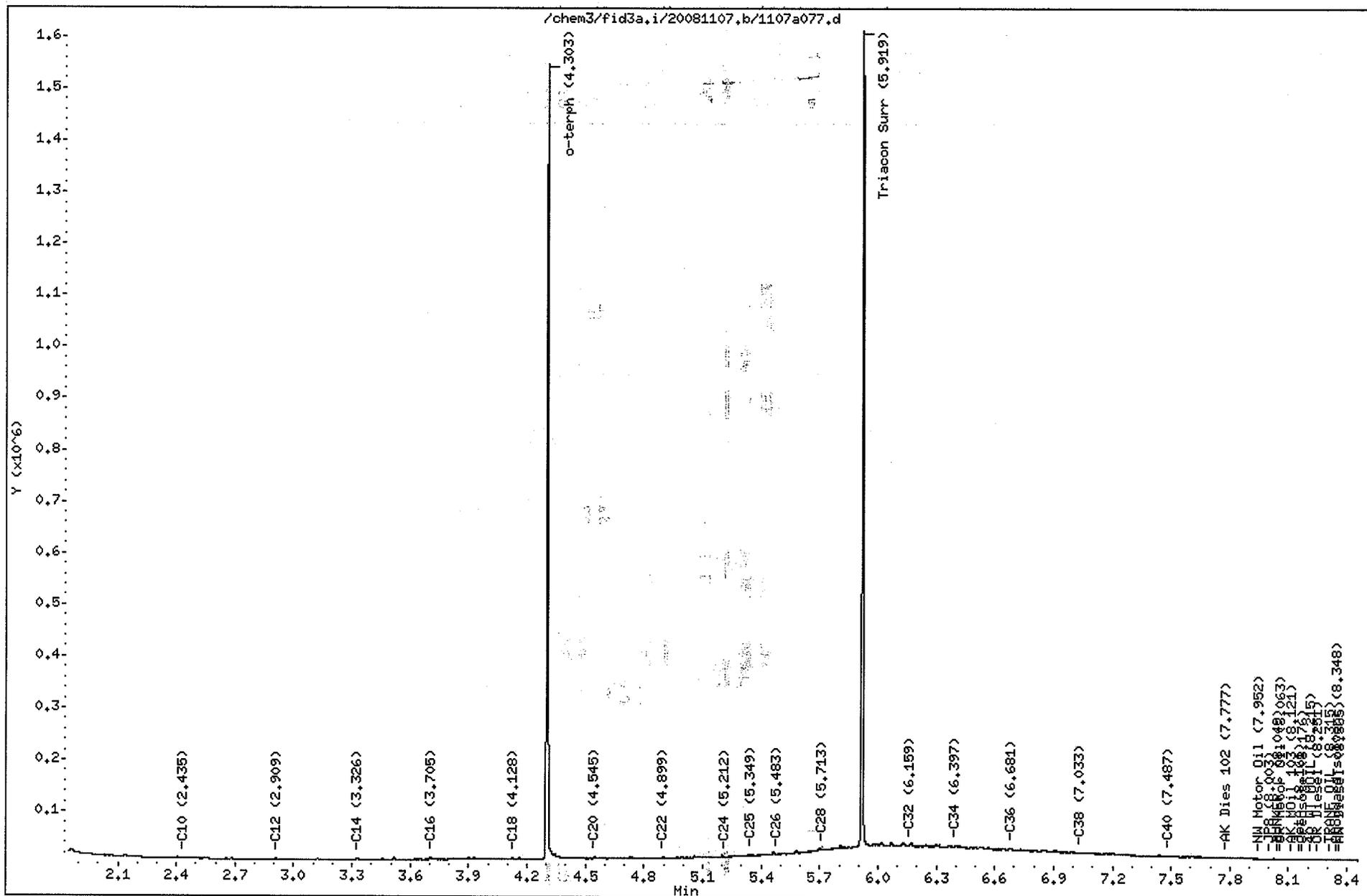
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Sample Info: NX93BDUP

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

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Operator: ms  
Report Date: 11/11/2008  
Macro: FID:3A1111b08

ARI ID: NX93C  
Client ID: TDP3-5-081103  
Injection: 08-NOV-2008 07:52  
Dilution Factor: 2

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.798	0.003	123456	113643	GAS (Tol-C12)	699679	2
C8	1.890	-0.002	16094	7974	DIESEL (C12-C24)	2961629	175
C10	2.437	-0.008	6350	13942	M.OIL (C24-C38)	12842139	1018
C12	2.909	-0.003	10486	6827	AK-102 (C10-C25)	3294663	153
C14	3.324	-0.001	12787	6274	AK-103 (C25-C36)	10990678	1201
C16	3.702	-0.003	17845	12421	OR.DIES (C10-C28)	6147171	290
C18	4.122	-0.008	41375	43722	OR.MOIL (C28-C40)	11179253	1193
C20	4.544	-0.004	17875	11568	JET-A (C10-C18)	1130386	66
C22	4.898	-0.005	35343	28588	MIN.OIL (C24-C38)	12842139	1001
C24	5.213	0.005	61068	54338	MSPIRIT (Tol-C12)	699679	44
C25	5.343	-0.002	75587	16430			
C26	5.476	0.001	88966	22990			
C28	5.707	-0.008	142392	106874			
C32	6.154	-0.001	167424	62494			
C34	6.401	0.004	131598	28632			
Filter Peak	8.444	-0.004	17611	6973	JP-4 (Tol-C14)	897200	79
C36	6.674	-0.005	108364	59834	CREOSOT (C8-C22)	2592188	416
C38	7.034	0.005	72255	63283			
C40	7.486	-0.002	40328	23826	BUNKERC (C10-C38)	15996771	1790

AZDIESEL (C10-C22) 2268032 141  
AZMOIL (C22-C32) 8191057 1272

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	419743	20.2	89.9
Triacontane	389647	20.0	88.8

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	399990.8	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

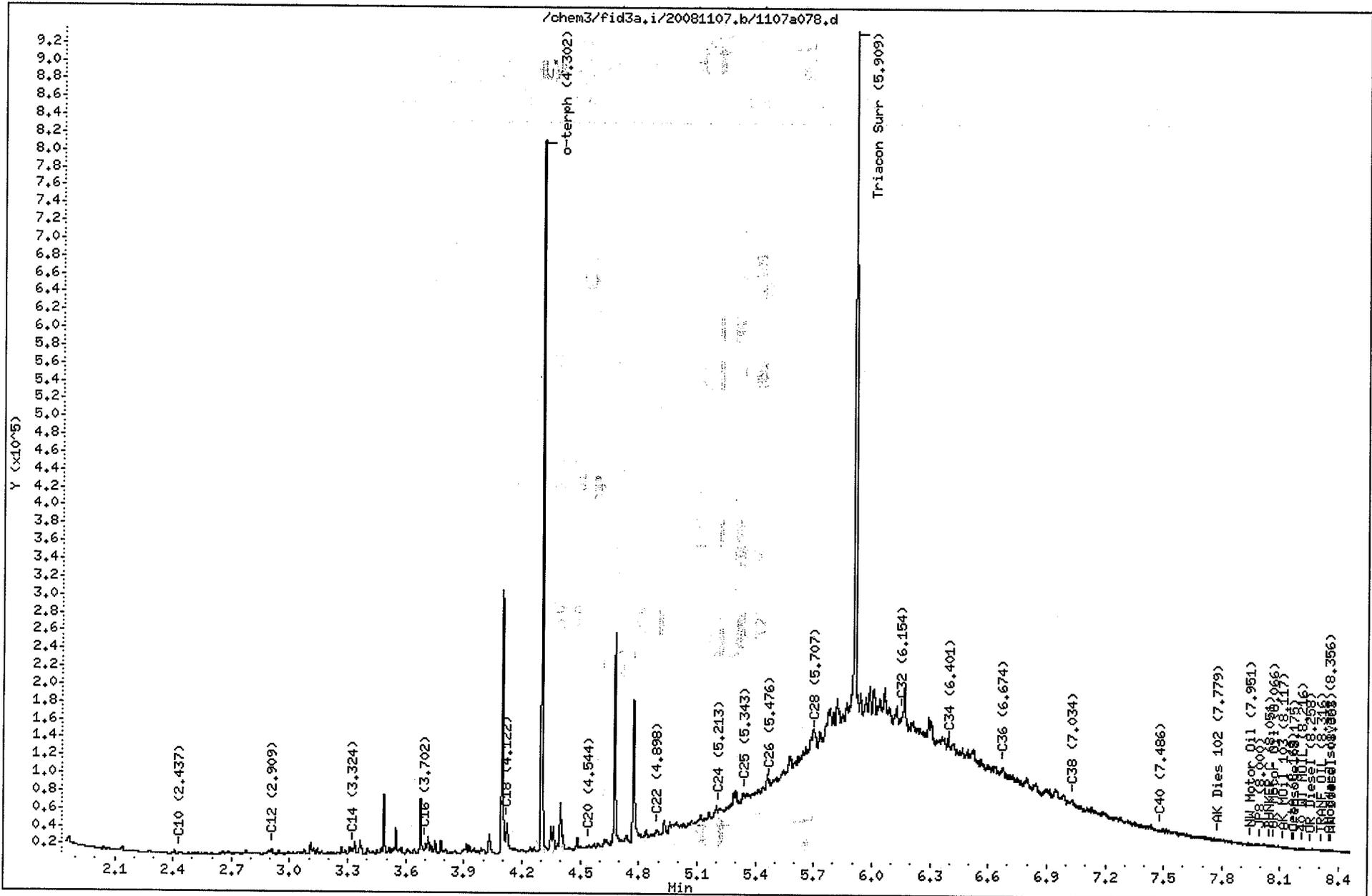
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Operator: ms

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Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

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Report Date: 11/11/2008  
Macro: FID:3A1111b08

ARI ID: NX93D  
Client ID: TDP4-4-081103  
Injection: 08-NOV-2008 08:07  
Dilution Factor: 2

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.785	-0.009	131808	160873	GAS (Tol-C12)	1021767	3
C8	1.892	0.001	15468	16518	DIESEL (C12-C24)	2019141	119
C10	2.436	-0.008	5931	7831	M.OIL (C24-C38)	14608332	1158
C12	2.909	-0.003	5085	4809	AK-102 (C10-C25)	2290261	106
C14	3.326	0.001	5973	3537	AK-103 (C25-C36)	12786394	1397
C16	3.702	-0.002	5729	6657	OR.DIES (C10-C28)	5534456	261
C18	4.128	-0.002	8780	7669	OR.MOIL (C28-C40)	12550665	1340
C20	4.548	0.000	15025	12086	JET-A (C10-C18)	465561	27
C22	4.899	-0.003	32974	28737	MIN.OIL (C24-C38)	14608332	1139
C24	5.209	0.002	63059	12397	MSPIRIT (Tol-C12)	1021767	65
C25	5.338	-0.007	85529	80311			
C26	5.478	0.004	101778	22090			
C28	5.716	0.002	159223	31200			
C32	6.156	0.001	202375	75607			
C34	6.396	0.000	162477	102016			
Filter Peak	8.447	0.000	17812	5284	JP-4 (Tol-C14)	1116198	98
C36	6.675	-0.004	115649	89885	CREOSOT (C8-C22)	1517346	243
C38	7.031	0.001	72118	36994			
C40	7.486	-0.001	38724	9121	BUNKERC (C10-C38)	16759526	1875
AZDIESEL (C10-C22)			1207028	75			
AZMOIL (C22-C32)			9510965	1477			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	418182	20.2	89.6
Triacontane	375274	19.2	85.5

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	399990.8	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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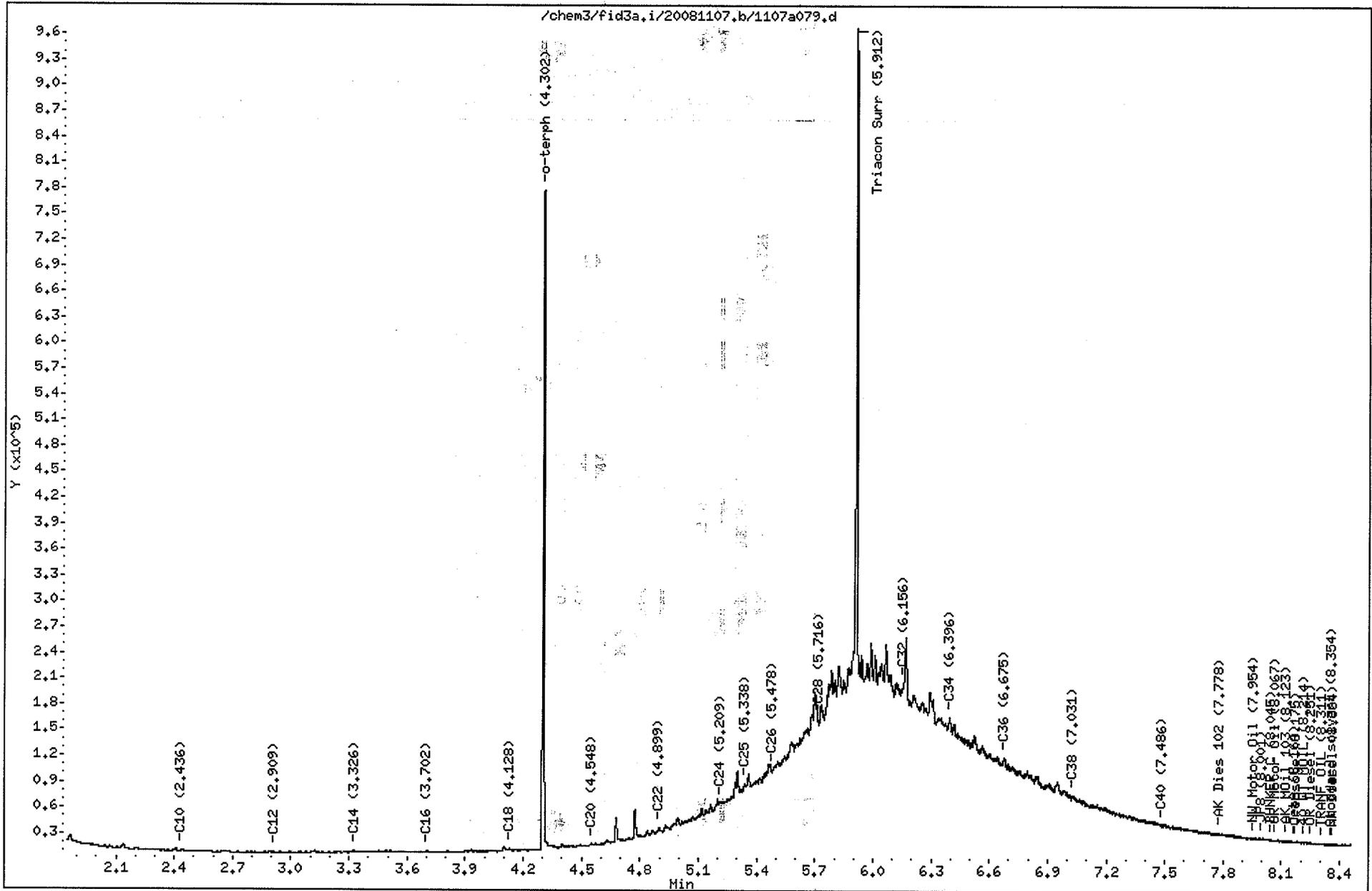
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Instrument: fid3a.i

Operator: ms

Column diameter: 0,25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a080.d  
Method: /chem3/fid3a.i/20081107.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/11/2008  
Macro: FID:3A1111b08

ARI ID: NX93E  
Client ID: TDP5-5-081103  
Injection: 08-NOV-2008 08:22  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.808	0.013	183508	238568	GAS (Tol-C12)	579373	1
C8	1.868	-0.024	19254	41889	DIESEL (C12-C24)	466238	28
C10	2.437	-0.008	4960	7193	M.OIL (C24-C38)	2000177	159
C12	2.910	-0.003	2684	2968	AK-102 (C10-C25)	584566	27
C14	3.330	0.005	2162	3907	AK-103 (C25-C36)	1673388	183
C16	3.708	0.003	2349	2465	OR.DIES (C10-C28)	994855	47
C18	4.128	-0.002	3299	5044	OR.MOIL (C28-C40)	1886881	201
C20	4.547	-0.001	5245	5644	JET-A (C10-C18)	238207	14
C22	4.900	-0.003	6959	7376	MIN.OIL (C24-C38)	2000177	156
C24	5.214	0.006	9318	4375	MSPRIT (Tol-C12)	579373	37
C25	5.355	0.010	11707	6201			
C26	5.482	0.007	13167	14602			
C28	5.714	-0.001	19052	3028			
C32	6.152	-0.004	23774	9770			
C34	6.395	-0.002	23549	24943			
Filter Peak	8.449	0.002	8431	3838	JP-4 (Tol-C14)	622026	55
C36	6.676	-0.003	17055	9389	CREOSOT (C8-C22)	670918	108
C38	7.027	-0.003	14078	7779			
C40	7.491	0.004	10309	2258	BUNKERC (C10-C38)	2563786	287
AZDIESEL (C10-C22)			405275	25			
AZMOIL (C22-C32)			1218668	189			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	854211	41.2	91.5
Triacontane	784679	40.2	89.4

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	399990.8	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 08-NOV-2008 08:22

Client ID: TDP5-5-081103

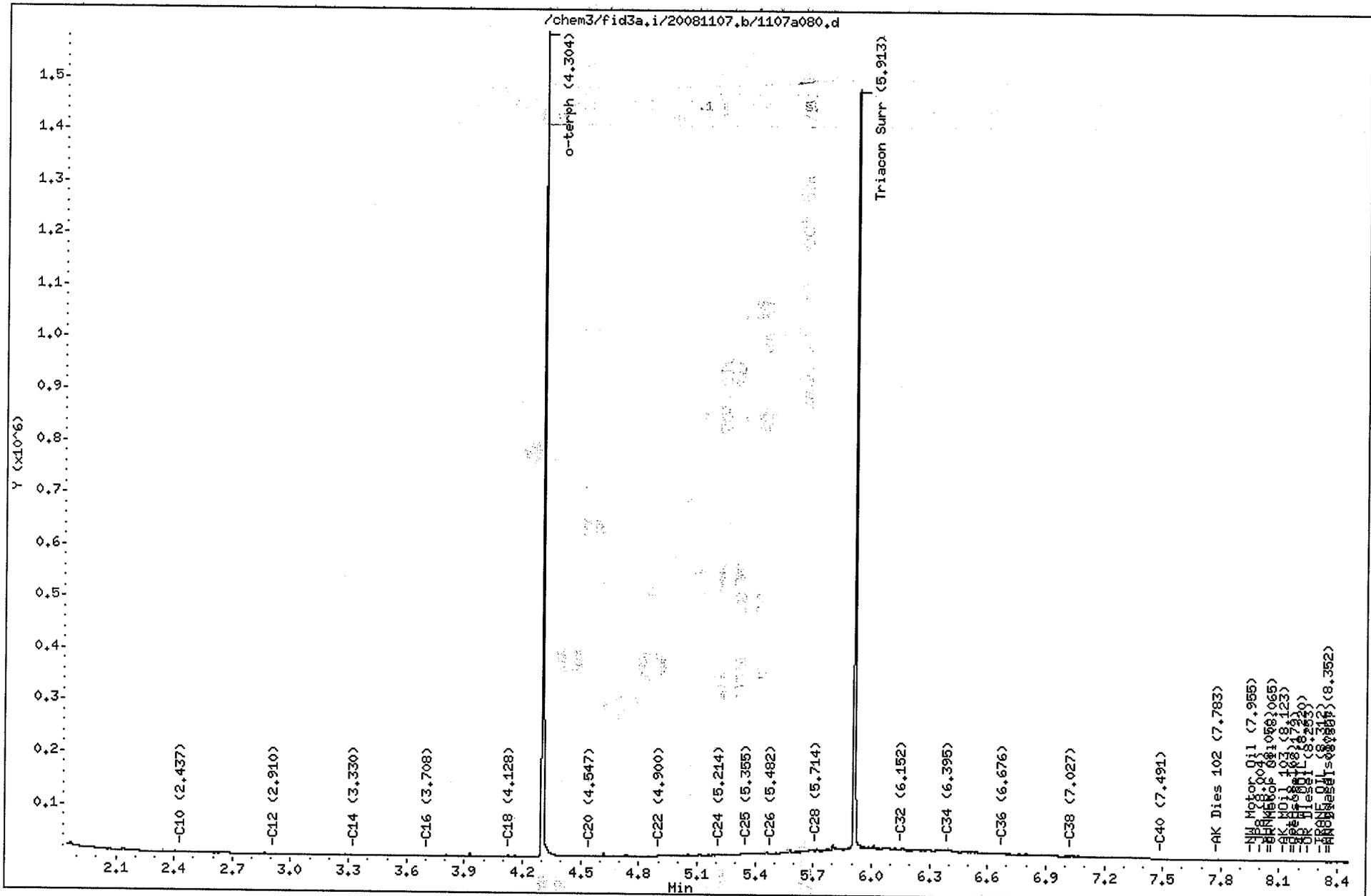
Sample Info: NX93E

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

<u>Client ID</u>	<u>O-TER TOT OUT</u>	
TDP1-9-081103	89.8%	0
110508MB	86.2%	0
TDP2-5-081103	89.6%	0
TDP2-5-081103 DP	91.1%	0
TDP3-5-081103	89.9%	0
TDP4-4-081103	89.6%	0
TDP5-5-081103	91.5%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(68-122)

(50-150)

Prep Method: SW3550B  
Log Number Range: 08-29920 to 08-29924

**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/03/08

ARI Job: NX93  
Project: BOEING THOMPSON  
025173

ARI ID	Client ID	Sample Amt	Final Vol	Basis	Prep Date
08-29920-NX93A	TDP1-9-081103	8.13 g	5.00 mL	D	11/05/08
08-29921-110508MB	Method Blank	10.0 g	5.00 mL	-	11/05/08
08-29921-NX93B	TDP2-5-081103	9.29 g	5.00 mL	D	11/05/08
08-29921-NX93BDP	TDP2-5-081103	9.45 g	5.00 mL	D	11/05/08
08-29922-NX93C	TDP3-5-081103	8.76 g	5.00 mL	D	11/05/08
08-29923-NX93D	TDP4-4-081103	9.37 g	5.00 mL	D	11/05/08
08-29924-NX93E	TDP5-5-081103	9.83 g	5.00 mL	D	11/05/08

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 1

Matrix: Water

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Data Release Authorized: 

Reported: 11/11/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-110508 08-29925	Method Blank	11/05/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	78.3%
NX93F 08-29925	TDP1-GW-081103 HC ID: ---	11/05/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	80.7%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a034.d ARI ID: NX93MBW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.m Client ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 21:03  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.790	-0.005	44905	63382	GAS (Tol-C12)	520344	22
C8	1.899	0.007	17976	38555	DIESEL (C12-C24)	251277	15
C10	2.437	-0.008	6611	14359	M.OIL (C24-C38)	568432	45
C12	2.911	-0.002	7951	6909	AK-102 (C10-C25)	382286	18
C14	3.328	0.003	11676	13689	AK-103 (C25-C36)	435475	48
C16	3.708	0.003	10185	13448	OR.DIES (C10-C28)	465532	22
C18	4.129	-0.001	5355	4730	OR.MOIL (C28-C40)	636502	68
C20	4.556	0.008	1684	500	JET-A (C10-C18)	285566	17
C22	4.901	-0.002	1564	920	MIN.OIL (C24-C38)	568432	44
C24	5.208	0.000	2654	2634	MSPRIT (Tol-C12)	520344	33
C25	5.343	-0.003	2053	1714			
C26	5.479	0.004	2543	2606			
C28	5.722	0.007	12042	12511			
C32	6.149	-0.006	7244	11614			
C34	6.393	-0.004	7071	4515			
Filter Peak	8.443	-0.004	5989	3346	JP-4 (Tol-C14)	581445	51
C36	6.687	0.007	7716	8629	CREOSOT (C8-C22)	668214	107
C38	7.032	0.002	6467	1936			
C40	7.479	-0.008	6352	1644	BUNKERC (C10-C38)	945940	106
AZDIESEL (C10-C22)			313996	20			
AZMOIL (C22-C32)			266335	41			

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	731418	35.2	78.3
Triacontane	660083	33.8	75.2

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a034.d

Date : 07-NOV-2008 21:03

Client ID:

Sample Info: NX93MBW1

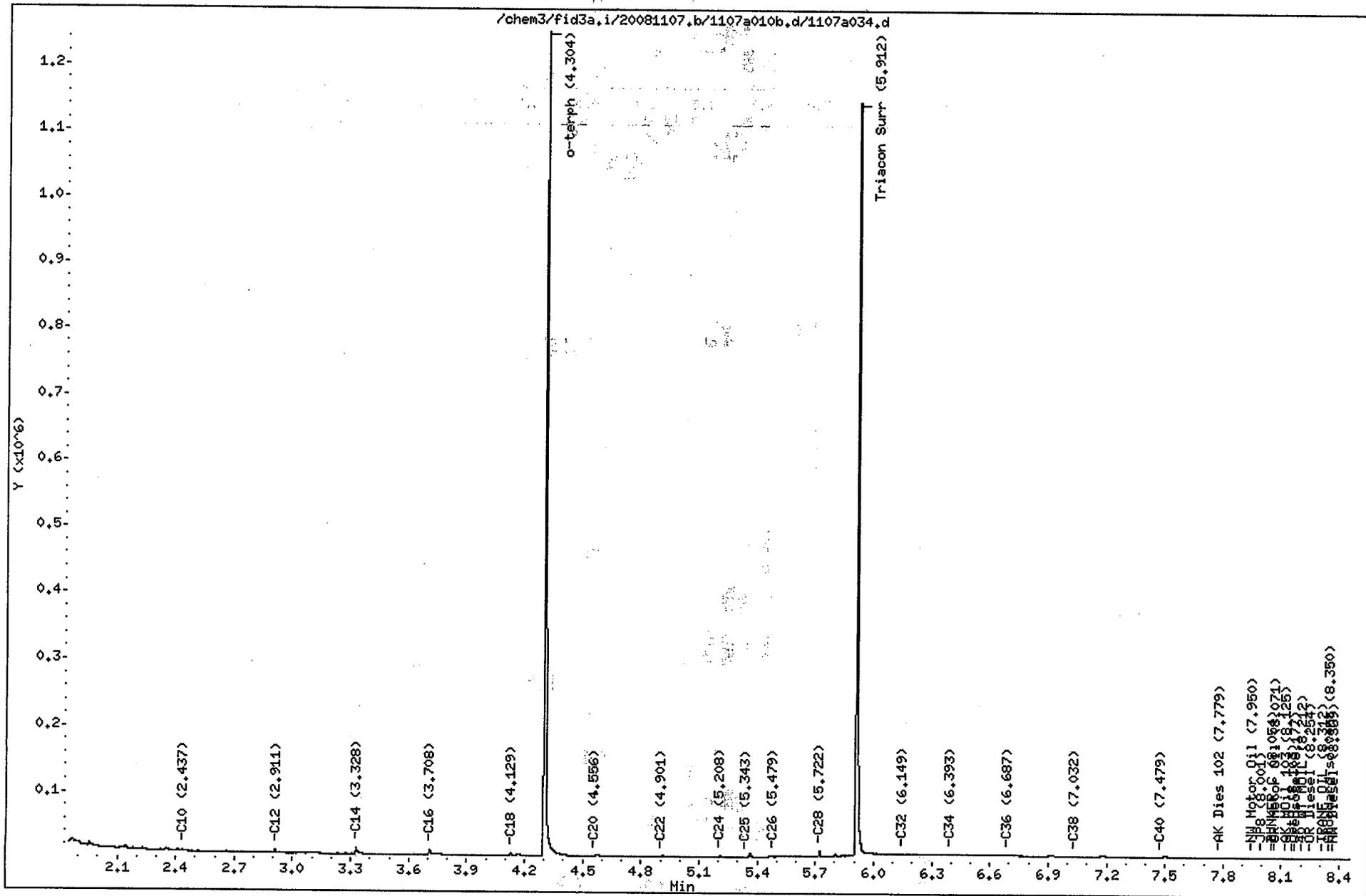
Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a037.d ARI ID: NX93F  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.m Client ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 21:48  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.798	0.003	68796	69709	GAS (Tol-C12)	1286444	55
C8	1.892	0.001	24353	17437	DIESEL (C12-C24)	2371849	140
C10	2.440	-0.005	8620	17826	M.OIL (C24-C38)	984554	78
C12	2.911	-0.001	10678	8674	AK-102 (C10-C25)	3118083	145
C14	3.321	-0.004	44129	33108	AK-103 (C25-C36)	802504	88
C16	3.703	-0.002	21438	10390	OR.DIES (C10-C28)	3371564	159
C18	4.122	-0.008	16542	19373	OR.MOIL (C28-C40)	912215	97
C20	4.547	-0.001	9074	5109	JET-A (C10-C18)	2405005	140
C22	4.916	0.013	8489	4326	MIN.OIL (C24-C38)	984554	77
C24	5.202	-0.006	10770	10239	MSPIRIT (Tol-C12)	1286444	81
C25	5.338	-0.007	11003	13501			
C26	5.477	0.002	8633	6004			
C28	5.727	0.012	22862	26601			
C32	6.144	-0.012	12566	15867			
C34	6.405	0.008	11193	13504			
Filter Peak	8.443	-0.005	6052	2776	JP-4 (Tol-C14)	1962503	173
C36	6.676	-0.003	9149	4160	CREOSOT (C8-C22)	3341704	536
C38	7.024	-0.006	7766	7988			
C40	7.495	0.008	7392	7574	BUNKERC (C10-C38)	4084447	457
=====							
AZDIESEL (C10-C22)			2895328	180			
AZMOIL (C22-C32)			663807	103			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
 AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	753361	36.3	80.7
Triacontane	713788	36.6	81.3

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107,b/1107a010b,d/1107a037.d

Date : 07-NOV-2008 21:48

Client ID:

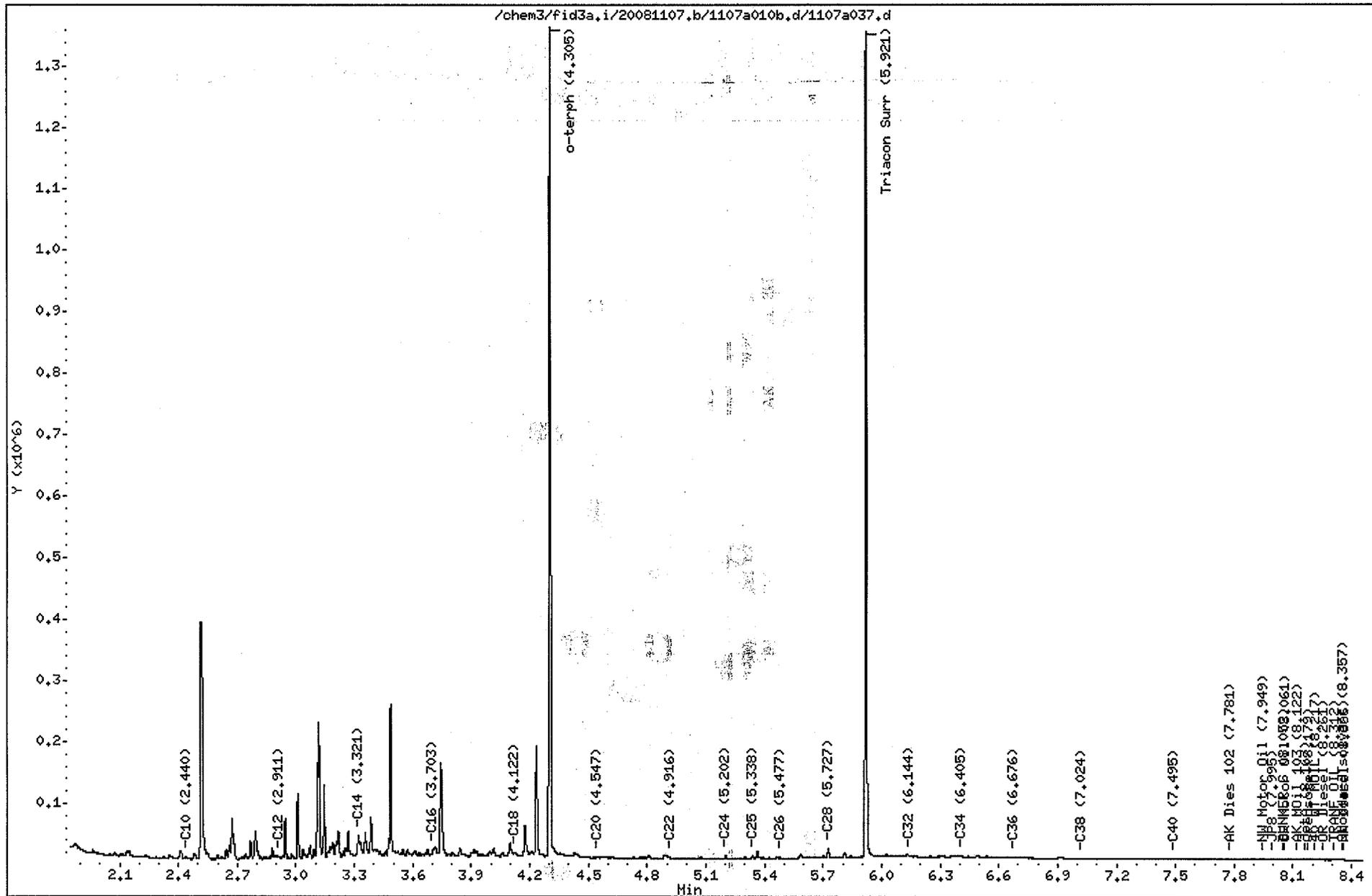
Instrument: fid3a.i

Sample Info: NX93F

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-110508	78.3%	0
LCS-110508	81.9%	0
LCSD-110508	88.3%	0
TDP1-GW-081103	80.7%	0

(O-TER) = o-Terphenyl

**LCS/MB LIMITS      QC LIMITS**

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 08-29925 to 08-29925

**ORGANICS ANALYSIS DATA SHEET**  
**NWTPH-HCID Method by GC/FID**  
 Page 1 of 1

Sample ID: LCS-110508  
 LCS/LCSD

Lab Sample ID: LCS-110508  
 LIMS ID: 08-29925  
 Matrix: Water  
 Data Release Authorized: *[Signature]*  
 Reported: 11/11/08

QC Report No: NX93-Landau Associates, Inc.  
 Project: BOEING THOMPSON  
 025173  
 Date Sampled: 11/03/08  
 Date Received: 11/03/08

Date Extracted LCS/LCSD: 11/05/08

Sample Amount LCS: 500 mL  
 LCSD: 500 mL

Date Analyzed LCS: 11/07/08 21:18  
 LCSD: 11/07/08 21:33

Final Extract Volume LCS: 1.0 mL  
 LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS  
 LCSD: FID/MS

Dilution Factor LCS: 1.00  
 LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.12	3.00	70.7%	2.14	3.00	71.3%	0.9%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	81.9%	88.3%

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

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a035.d ARI ID: NX93LCSW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 21:18  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.788	-0.007	59743	85666	GAS (Tol-C12)	3341877	142
C8	1.886	-0.005	29568	29773	DIESEL (C12-C24)	17921271	1060
C10	2.443	-0.002	104273	77259	M.OIL (C24-C38)	868695	69
C12	2.911	-0.002	421010	262334	AK-102 (C10-C25)	20449930	949
C14	3.325	0.000	779473	358339	AK-103 (C25-C36)	701817	77
C16	3.704	0.000	808776	688728	OR.DIES (C10-C28)	20794740	982
C18	4.131	0.001	564821	407239	OR.MOIL (C28-C40)	643477	69
C20	4.546	-0.001	408907	319426	JET-A (C10-C18)	14988543	874
C22	4.900	-0.003	171819	134530	MIN.OIL (C24-C38)	868695	68
C24	5.201	-0.006	70962	53659	MSPRIT (Tol-C12)	3341877	211
C25	5.337	-0.008	41691	46935			
C26	5.477	0.002	13463	12121			
C28	5.726	0.011	17460	20587			
C32	6.152	-0.004	7711	9429			
C34	6.395	-0.002	7419	3113			
Filter Peak	8.445	-0.003	5804	4287	JP-4 (Tol-C14)	7102763	625
C36	6.671	-0.009	6946	2769	CREOSOT (C8-C22)	20464871	3283
C38	7.032	0.002	6507	3505			
C40	7.487	0.000	6199	2226	BUNKERC (C10-C38)	21276380	2381
AZDIESEL (C10-C22)			19465575	1212			
AZMOIL (C22-C32)			1195985	186			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
 AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	765154	36.9	81.9
Triacontane	718956	36.9	81.9

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a035.d

Date : 07-NOV-2008 21:18

Client ID:

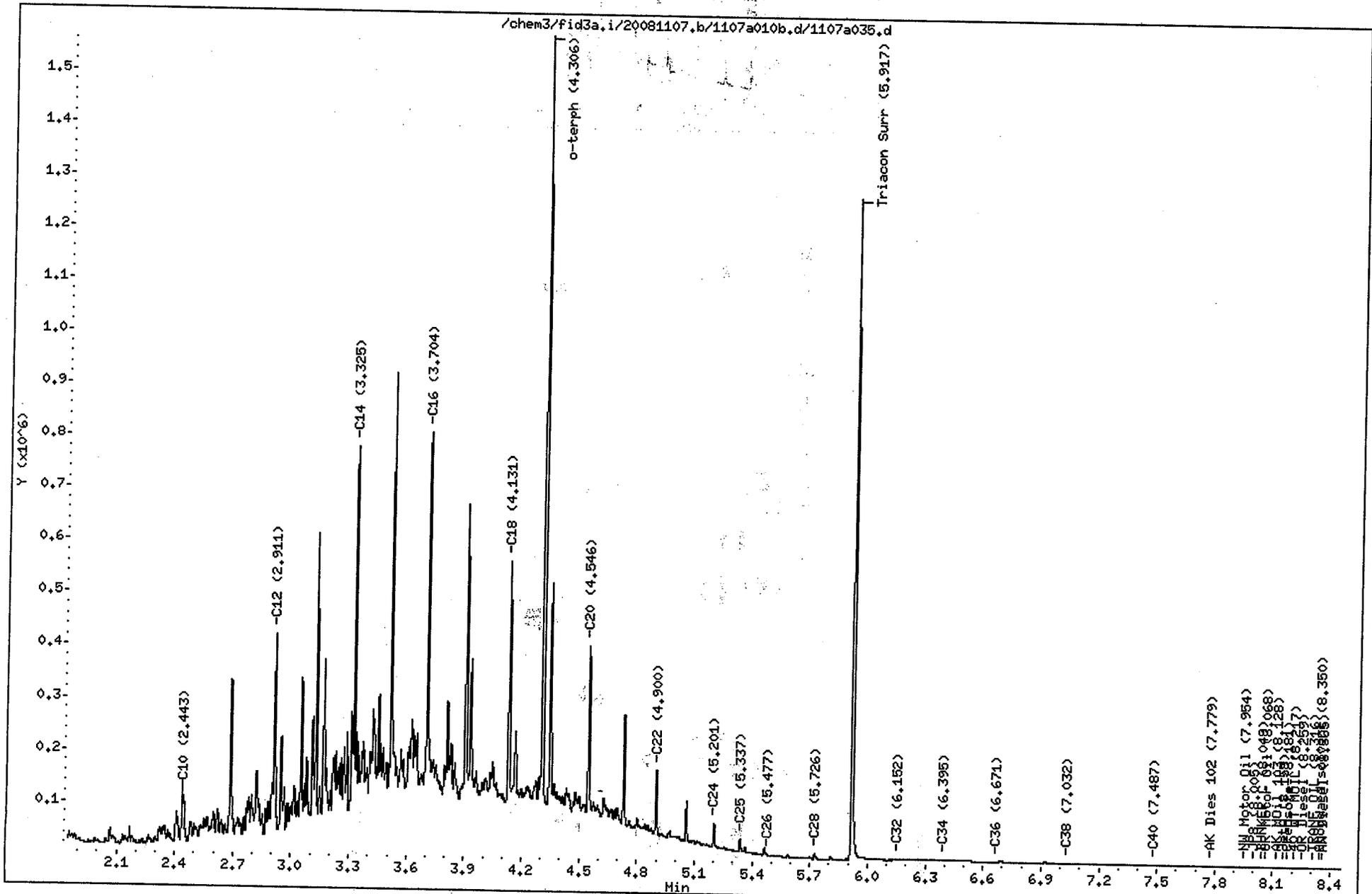
Sample Info: NX93LCSW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0,25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a036.d ARI ID: NX93LCSDW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 21:33  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.789	-0.006	66545	106367	GAS (Tol-C12)	3425476	145
C8	1.887	-0.005	29691	31546	DIESEL (C12-C24)	18112296	1071
C10	2.442	-0.003	111236	80461	M.OIL (C24-C38)	916699	73
C12	2.911	-0.001	438998	263036	AK-102 (C10-C25)	20700757	961
C14	3.325	0.000	766762	357119	AK-103 (C25-C36)	734796	80
C16	3.705	0.001	801122	709238	OR.DIES (C10-C28)	21060016	995
C18	4.131	0.001	540369	408990	OR.MOIL (C28-C40)	673233	72
C20	4.548	0.000	401118	321728	JET-A (C10-C18)	15136583	883
C22	4.901	-0.002	171482	133145	MIN.OIL (C24-C38)	916699	71
C24	5.202	-0.005	71562	61701	MSPIRIT (Tol-C12)	3425476	216
C25	5.338	-0.008	44264	45022			
C26	5.465	-0.010	26343	31391			
C28	5.726	0.011	18995	18818			
C32	6.152	-0.004	8256	13317			
C34	6.393	-0.004	7826	1717			
Filter Peak	8.446	-0.001	6128	3304	JP-4 (Tol-C14)	7267053	640
C36	6.666	-0.013	7313	3500	CREOSOT (C8-C22)	20692128	3319
C38	7.035	0.005	6885	3027			
C40	7.486	-0.002	6564	1572	BUNKERC (C10-C38)	21574579	2414
AZDIESEL (C10-C22)			19684945	1226			
AZMOIL (C22-C32)			1248240	194			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
 AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	824356	39.7	88.3
Triacontane	772648	39.6	88.0

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a036.d

Date: 07-NOV-2008 21:33

Client ID:

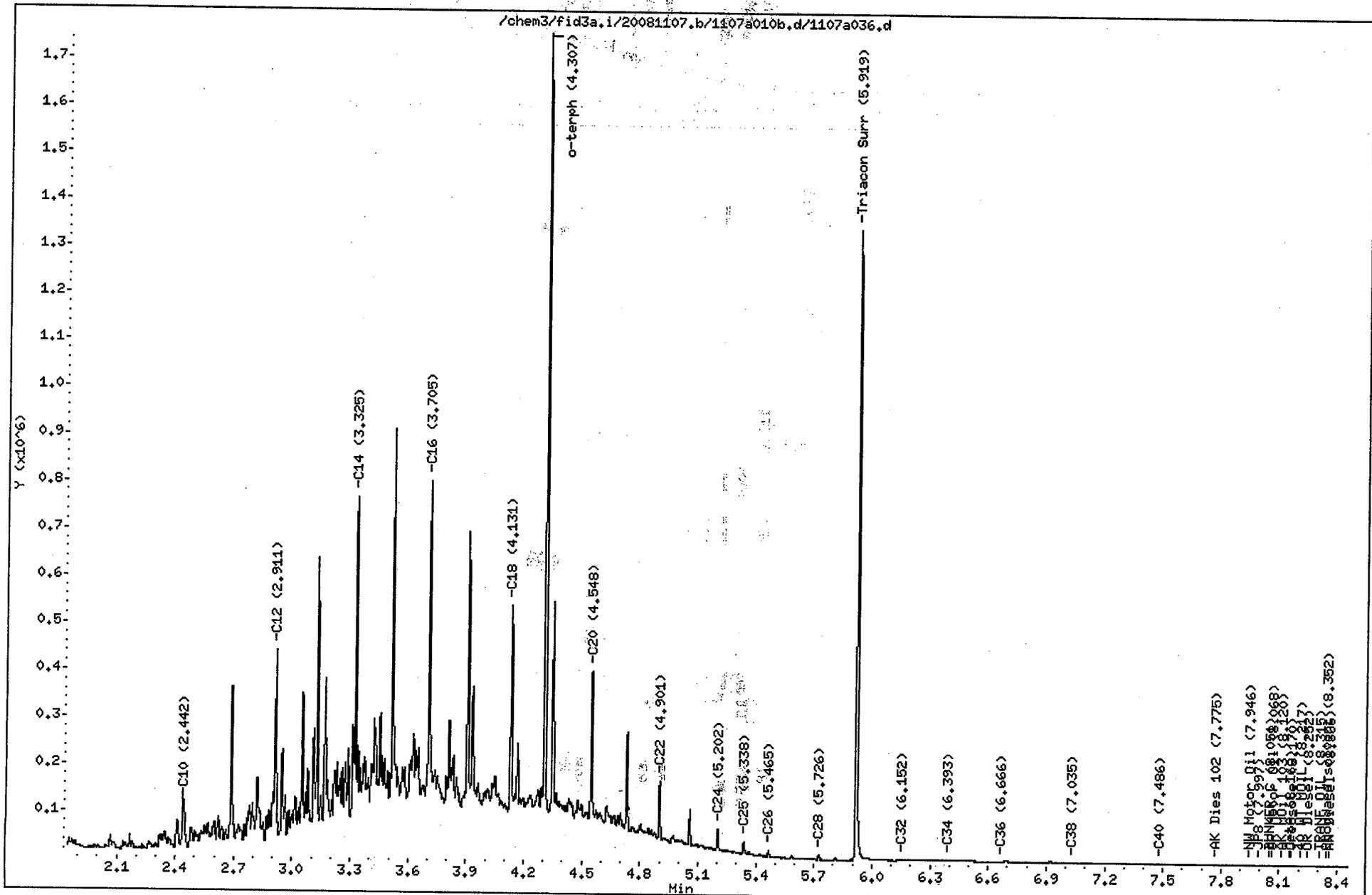
Sample Info: NX93LCSDW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0,25



**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Water  
Date Received: 11/03/08

ARI Job: NX93  
Project: BOEING THOMPSON  
025173

<u>ARI ID</u>	<u>Client ID</u>	<u>Sample Amt</u>	<u>Final Vol</u>	<u>Prep Date</u>
08-29925-110508MB	Method Blank	500 mL	1.00 mL	11/05/08
08-29925-110508LCS	Lab Control	500 mL	1.00 mL	11/05/08
08-29925-110508LCSD	Lab Control Dup	500 mL	1.00 mL	11/05/08
08-29925-NX93F	TDP1-GW-081103	500 mL	1.00 mL	11/05/08

**ORGANICS ANALYSIS DATA SHEET**

**TOTAL DIESEL RANGE HYDROCARBONS**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Data Release Authorized: *AB*

Reported: 11/14/08

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-111208	Method Blank	11/12/08	11/13/08	1.00	Diesel	5.0	< 5.0 U
08-29920	HC ID: ---		FID3A	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		92.7%
NX93A	TDP1-9-081103	11/12/08	11/14/08	1.00	Diesel	5.8	16
08-29920	HC ID: DRO/MOTOR OIL		FID3A	1.0	Motor Oil	12	99
					o-Terphenyl		89.3%
NX93B	TDP2-5-081103	11/12/08	11/14/08	1.00	Diesel	5.4	19
08-29921	HC ID: DRO/MOTOR OIL		FID3A	1.0	Motor Oil	11	95
					o-Terphenyl		91.1%
NX93C	TDP3-5-081103	11/12/08	11/14/08	1.00	Diesel	29	110
08-29922	HC ID: DRO/MOTOR OIL		FID3A	5.0	Motor Oil	58	740
					o-Terphenyl		105%
NX93D	TDP4-4-081103	11/12/08	11/14/08	1.00	Diesel	28	78
08-29923	HC ID: DRO/MOTOR OIL		FID3A	5.0	Motor Oil	56	640
					o-Terphenyl		97.3%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.

DL-Dilution of extract prior to analysis.

RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.

Motor Oil quantitation on total peaks in the range from C24 to C38.

HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081113.b/1113a045.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93MBS1  
Client ID:  
Injection: 13-NOV-2008 23:16  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	98136	79073	GAS (Tol-C12)	1155377	18
C8	1.875	0.000	24835	26285	DIESEL (C12-C24)	356006	24
C10	2.418	-0.005	14517	18769	M.OIL (C24-C38)	750637	72
C12	2.898	-0.001	7981	9328	AK-102 (C10-C25)	638976	34
C14	3.321	0.008	3737	3822	AK-103 (C25-C36)	606898	112
C16	3.695	0.003	2758	3722	OR.DIES (C10-C28)	767446	39
C18	4.117	0.002	2646	4184	OR.MOIL (C28-C40)	799056	85
C20	4.527	-0.004	2475	2904	JET-A (C10-C18)	499945	30
C22	4.893	0.006	2625	2423	MIN.OIL (C24-C38)	750637	59
C24	5.192	0.000	3437	2614	MSPRIT (Tol-C12)	1155377	73
C25	5.331	0.002	3732	4321			
C26	5.457	-0.001	4274	4085			
C28	5.700	0.005	5707	3234			
C32	6.125	-0.005	16480	19473			
C34	6.367	-0.001	8376	5280			
Filter Peak	6.430	-0.002	5592	3672	JP-4 (Tol-C14)	1259123	111
C36	6.653	0.009	20858	32504	CREOSOT (C8-C22)	1190011	191
C38	6.989	0.003	6962	2622			
C40	7.442	0.012	10042	13232	BUNKERC (C10-C38)	1385308	155
AZDIESEL (C10-C22)			512530	32			
AZMOIL (C22-C32)			372193	58			

Range Times: NW Diesel (2.949 - 5.242) NW Gas (1.724 - 2.949) NW M.Oil (5.242 - 7.037)  
AK102 (2.373 - 5.279) AK103 (5.279 - 6.694) Jet A (2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	722844	41.7	92.7
Triacontane	639278	39.0	86.6

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081113.b/1113a045.d

Date : 13-NOV-2008 23:16

Client ID:

Sample Info: NX93MBS1

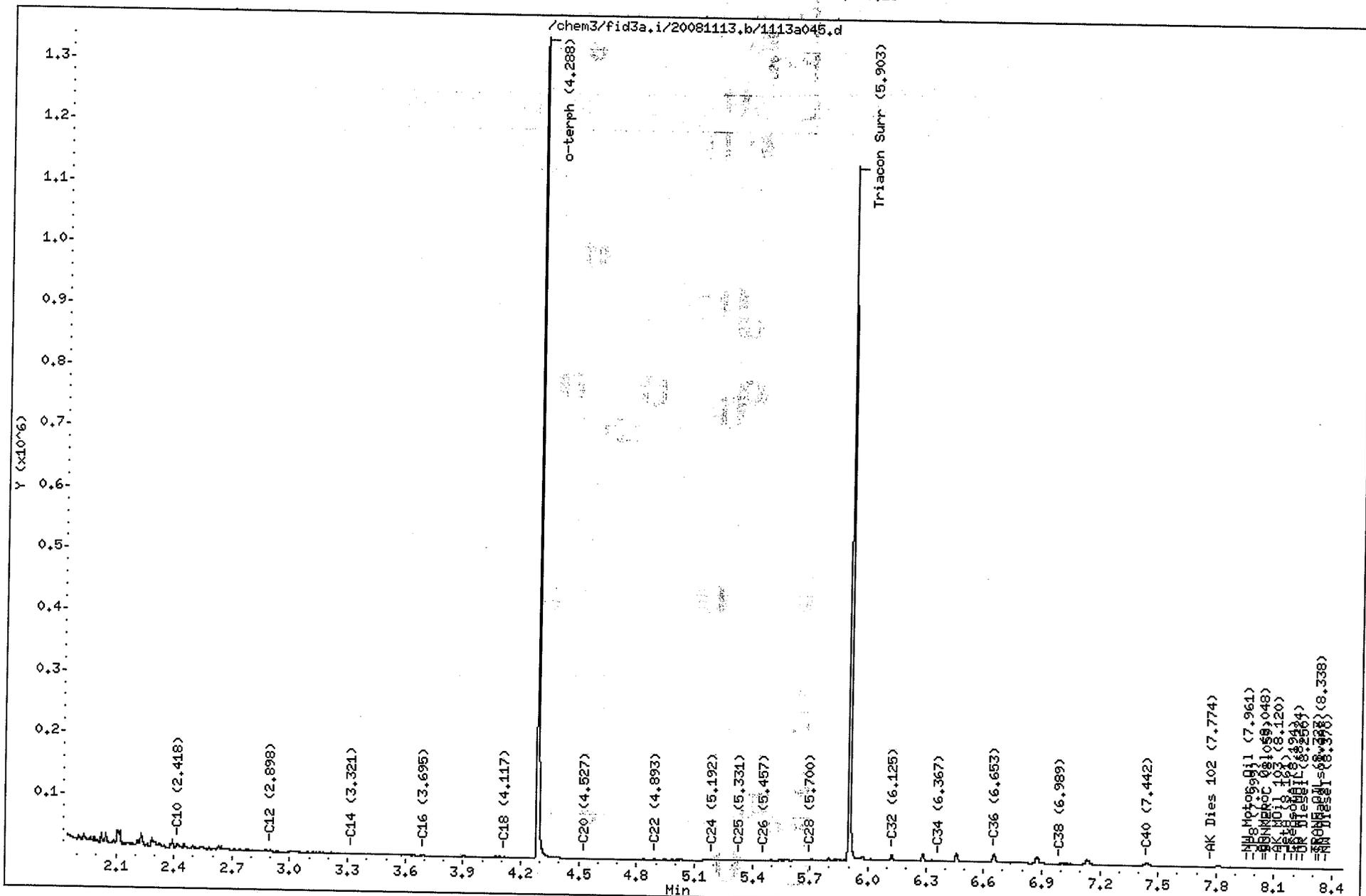
Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

Data file: /chem3/fid3a.i/20081113.b/1113a089.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93A  
Client ID:  
Injection: 14-NOV-2008 09:54  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	54424	57845	GAS (Tol-C12)	1033974	16
C8	1.874	-0.001	22072	22800	DIESEL (C12-C24)	2122173	140
C10	2.421	-0.002	12885	25707	M.OIL (C24-C38)	8811527	845
C12	2.898	-0.001	10522	6835	AK-102 (C10-C25)	2544144	134
C14	3.314	0.000	8915	7291	AK-103 (C25-C36)	7744128	1424
C16	3.690	-0.002	10529	10729	OR.DIES (C10-C28)	5175477	264
C18	4.112	-0.003	12612	16044	OR.MOIL (C28-C40)	6957296	743
C20	4.528	-0.004	19510	16986	JET-A (C10-C18)	737314	44
C22	4.883	-0.005	38680	34780	MIN.OIL (C24-C38)	8811527	687
C24	5.196	0.004	58938	26625	MSPRIT (Tol-C12)	1033974	65
C25	5.325	-0.004	87781	86013			
C26	5.453	-0.005	98762	130820			
C28	5.698	0.003	122984	65538			
C32	6.127	-0.003	102775	80580			
C34	6.371	0.004	71473	41750			
Filter Peak	8.431	0.000	17552	5219	JP-4 (Tol-C14)	1168273	103
C36	6.646	0.002	55879	21848	CREOSOT (C8-C22)	2087605	335
C38	6.991	0.004	45191	38619			
C40	7.434	0.004	30668	14301	BUNKERC (C10-C38)	11213798	1255
AZDIESEL (C10-C22)				1485572	92		
AZMOIL (C22-C32)				6697693	1040		

PRO  
MO

Range Times: NW Diesel (2.949 - 5.242) NW Gas (1.724 - 2.949) NW M.Oil (5.242 - 7.037)  
AK102 (2.373 - 5.279) AK103 (5.279 - 6.694) Jet A (2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	696177	40.2	89.3
Triacontane	495512	30.2	67.1

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a,i/20081113,b/1113a089,d

Date : 14-NOV-2008 09:54

Client ID:

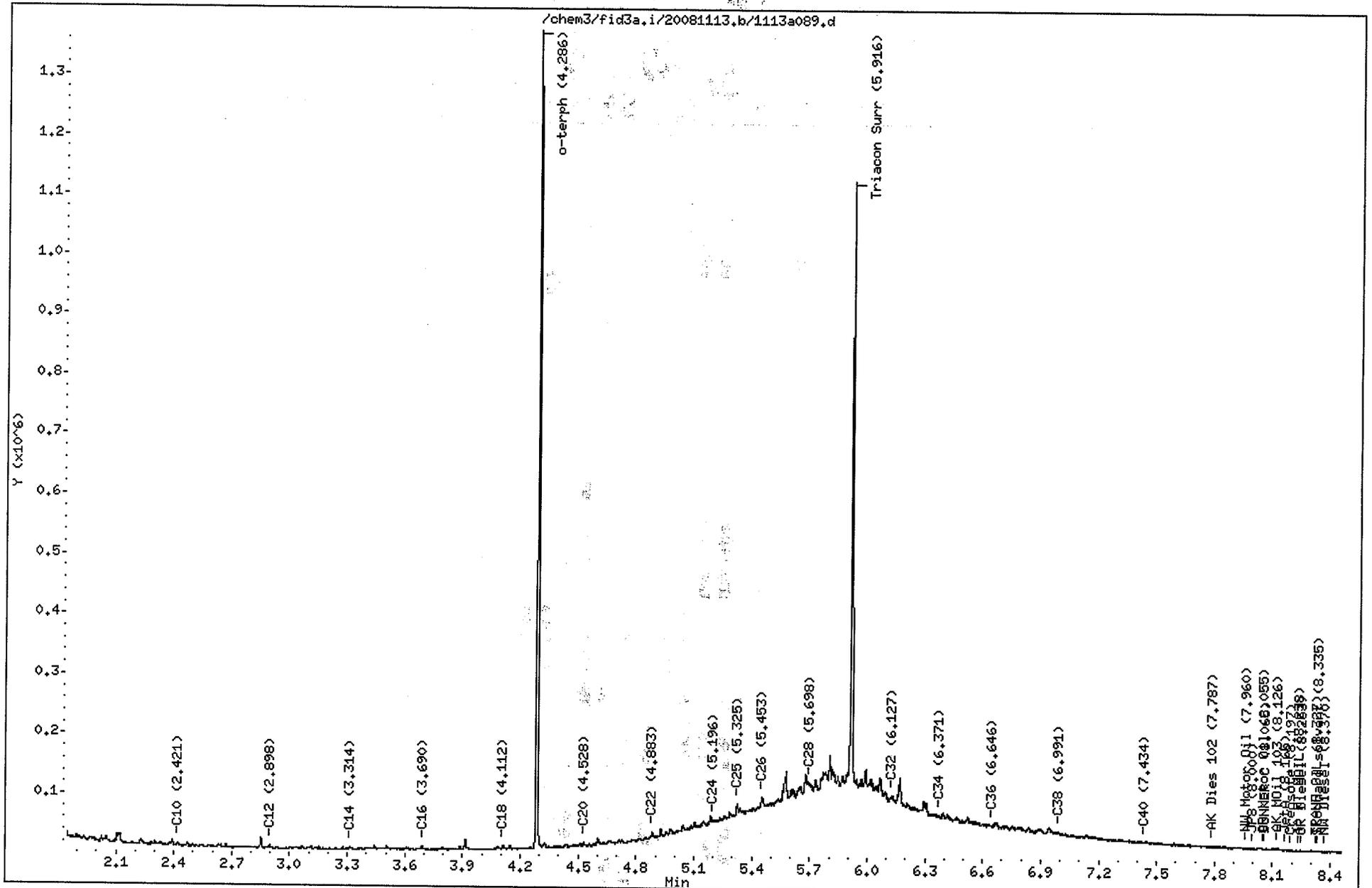
Sample Info: NX93A

Column phase: RTX-1

Instrument: fid3a,i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

Data file: /chem3/fid3a.i/20081113.b/1113a090.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93B  
Client ID:  
Injection: 14-NOV-2008 10:08  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.773	-0.002	79285	69604	GAS (Tol-C12)	916640	14
C8	1.875	0.000	19960	18448	DIESEL (C12-C24)	2647860	175
C10	2.420	-0.004	10003	21367	M.OIL (C24-C38)	9262507	888
C12	2.897	-0.002	14232	11554	AK-102 (C10-C25)	2955008	156
C14	3.313	0.000	22374	14094	AK-103 (C25-C36)	7973719	1466
C16	3.690	-0.002	35222	24561	OR.DIES (C10-C28)	5155068	263
C18	4.111	-0.004	39286	35513	OR.MOIL (C28-C40)	8149027	870
C20	4.528	-0.004	45316	46430	JET-A (C10-C18)	1038555	62
C22	4.885	-0.003	51380	48255	MIN.OIL (C24-C38)	9262507	722
C24	5.191	-0.002	71684	65543	MSPRIT (Tol-C12)	916640	58
C25	5.329	-0.001	78450	85875			
C26	5.459	0.001	101577	131933			
C28	5.700	0.005	127364	188401			
C32	6.127	-0.003	112593	46231			
C34	6.372	0.004	102473	47888			
Filter Peak	8.433	0.002	21166	13176	JP-4 (Tol-C14)	1079712	95
C36	6.646	0.001	78423	45320	CREOSOT (C8-C22)	2613131	419
C38	6.990	0.003	60479	23558			
C40	7.431	0.001	42947	28402	BUNKERC (C10-C38)	12132358	1358
AZDIESEL (C10-C22)			2103839	131			
AZMOIL (C22-C32)			6105017	948			

PPC  
MCO

Range Times: NW Diesel (2.949 - 5.242) NW Gas (1.724 - 2.949) NW M.Oil (5.242 - 7.037)  
AK102 (2.373 - 5.279) AK103 (5.279 - 6.694) Jet A (2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	709492	41.0	91.0
Triacontane	581210	35.4	78.7

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a,i/20081113,b/1113a090.d

Date : 14-NOV-2008 10:08

Client ID:

Sample Info: NX93B

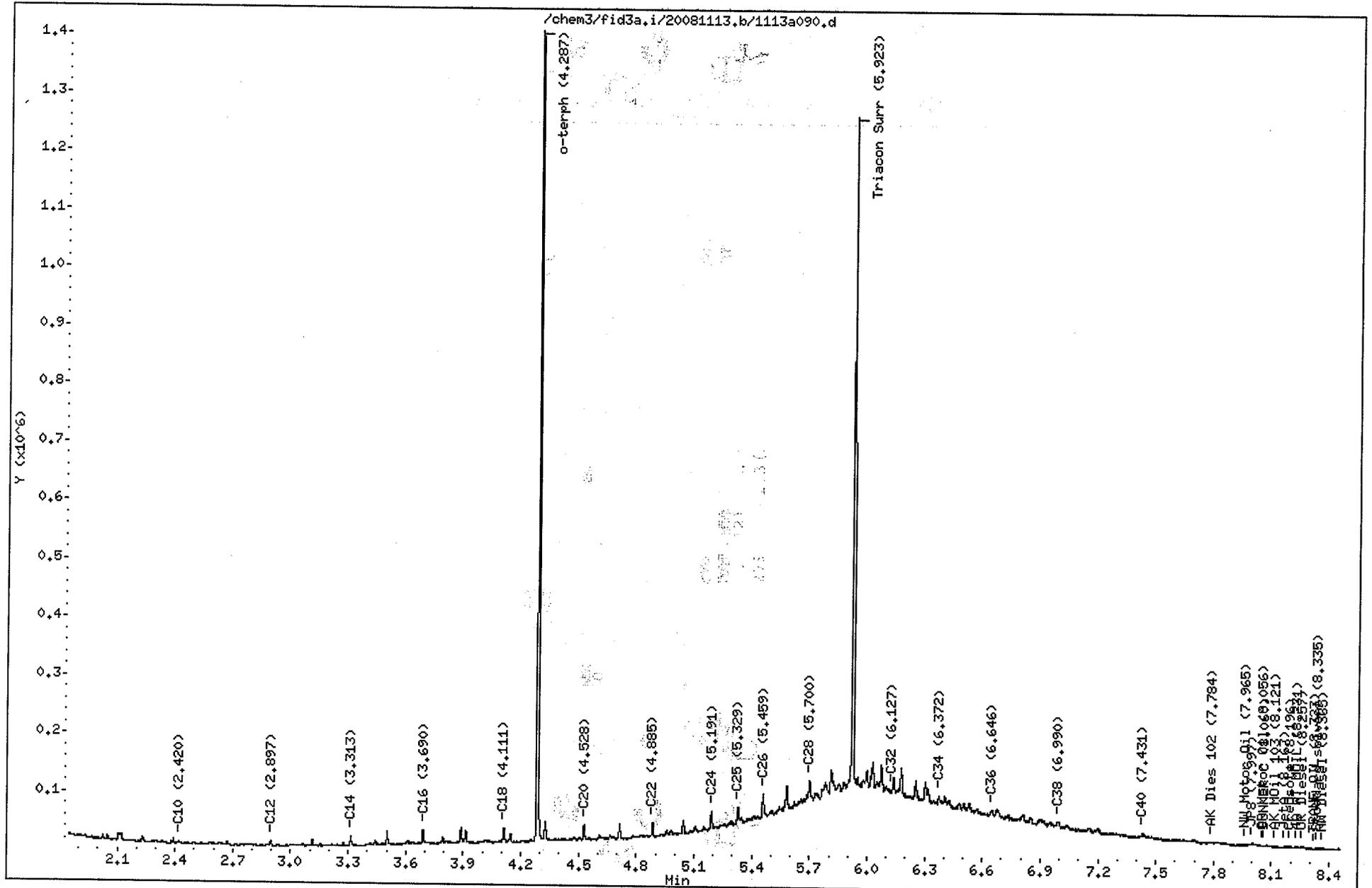
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Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081113.b/1113a052.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93C  
Client ID:  
Injection: 14-NOV-2008 00:58  
Dilution Factor: 5

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.004	44315	46248	GAS (Tol-C12)	1007264	15
C8	1.873	-0.001	22700	24639	DIESEL (C12-C24)	2809956	186 <i>phc</i>
C10	2.421	-0.003	11324	19431	M.OIL (C24-C38)	13417148	1286 <i>mo</i>
C12	2.898	-0.001	22423	13816	AK-102 (C10-C25)	3269948	172
C14	3.313	0.000	22233	14058	AK-103 (C25-C36)	11832309	2175
C16	3.691	-0.001	15519	11807	OR.DIES (C10-C28)	6606821	337
C18	4.111	-0.004	16657	18496	OR.MOIL (C28-C40)	11266787	1203
C20	4.530	-0.002	21441	19537	JET-A (C10-C18)	1125900	67
C22	4.884	-0.004	44150	45968	MIN.OIL (C24-C38)	13417148	1046
C24	5.185	-0.007	80220	65961	MSPRIT (Tol-C12)	1007264	64
C25	5.333	0.003	95540	50206			
C26	5.460	0.002	111872	57147			
C28	5.695	0.000	176938	97776			
C32	6.135	0.004	172904	73127			
C34	6.372	0.005	133351	148822			
Filter Peak	8.429	-0.003	20806	11830	JP-4 (Tol-C14)	1284322	113
C36	6.644	-0.001	92582	19980	CREOSOT (C8-C22)	2565324	411
C38	6.986	-0.001	64673	17860			
C40	7.431	0.001	41080	6513	BUNKERC (C10-C38)	16558081	1853
AZDIESEL (C10-C22)			2022350	126			
AZMOIL (C22-C32)			9665527	1501			

Range Times: NW Diesel (2.949 - 5.242) NW Gas (1.724 - 2.949) NW M.Oil (5.242 - 7.037)  
AK102 (2.373 - 5.279) AK103 (5.279 - 6.694) Jet A (2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	164138	9.5	105.3
Triacontane	129781	7.9	87.9

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081113,b/1113a052.d

Date: 14-NOV-2008 00:58

Client ID:

Sample Info: NX93C,5

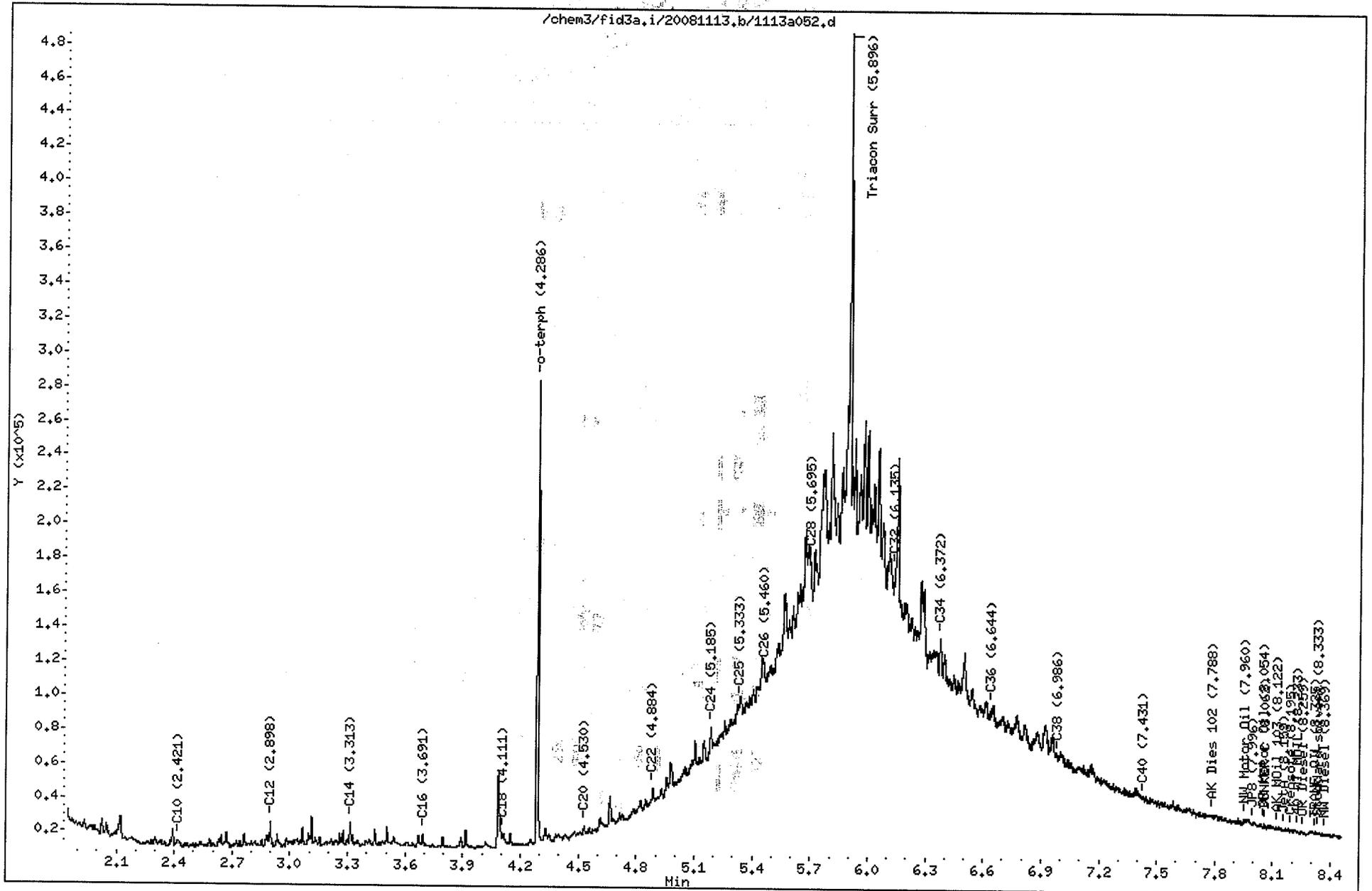
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Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

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Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081113.b/1113a053.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93D  
Client ID:  
Injection: 14-NOV-2008 01:12  
Dilution Factor: 5

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.770	-0.005	50904	48297	GAS (Tol-C12)	908537	14
C8	1.871	-0.003	22701	24037	DIESEL (C12-C24)	2098855	139
C10	2.417	-0.006	10200	14085	M.OIL (C24-C38)	11889662	1140
C12	2.898	-0.001	7409	5025	AK-102 (C10-C25)	2468278	130
C14	3.315	0.001	7623	5736	AK-103 (C25-C36)	10383909	1909
C16	3.694	0.002	7055	6360	OR.DIES (C10-C28)	5199650	265
C18	4.115	0.000	10039	9312	OR.MOIL (C28-C40)	10207640	1090
C20	4.529	-0.003	16547	15149	JET-A (C10-C18)	681753	41
C22	4.885	-0.003	34915	36105	MIN.OIL (C24-C38)	11889662	927
C24	5.193	0.001	58370	9228	MSPRIT (Tol-C12)	908537	57
C25	5.337	0.008	80422	90700			
C26	5.454	-0.003	98075	69699			
C28	5.696	0.001	146988	93107			
C32	6.128	-0.002	152243	69204			
C34	6.367	0.000	103762	18579			
Filter Peak	6.430	-0.001	20436	7228	JP-4 (Tol-C14)	1044643	92
C36	6.644	0.000	81976	49816	CREOSOT (C8-C22)	1959936	314
C38	6.992	0.005	60882	28875			
C40	7.430	0.000	40788	13589	BUNKERC (C10-C38)	14225897	1592
AZDIESEL (C10-C22)			1415179	88			
AZMOIL (C22-C32)			8417363	1307			

*DRG  
M/D*

Range Times: NW Diesel (2.949 - 5.242) NW Gas (1.724 - 2.949) NW M.Oil (5.242 - 7.037)  
AK102 (2.373 - 5.279) AK103 (5.279 - 6.694) Jet A (2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	151704	8.8	97.3
Triacontane	128253	7.8	86.8

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081113.b/1113a053.d

Date : 14-NOV-2008 01:12

Client ID:

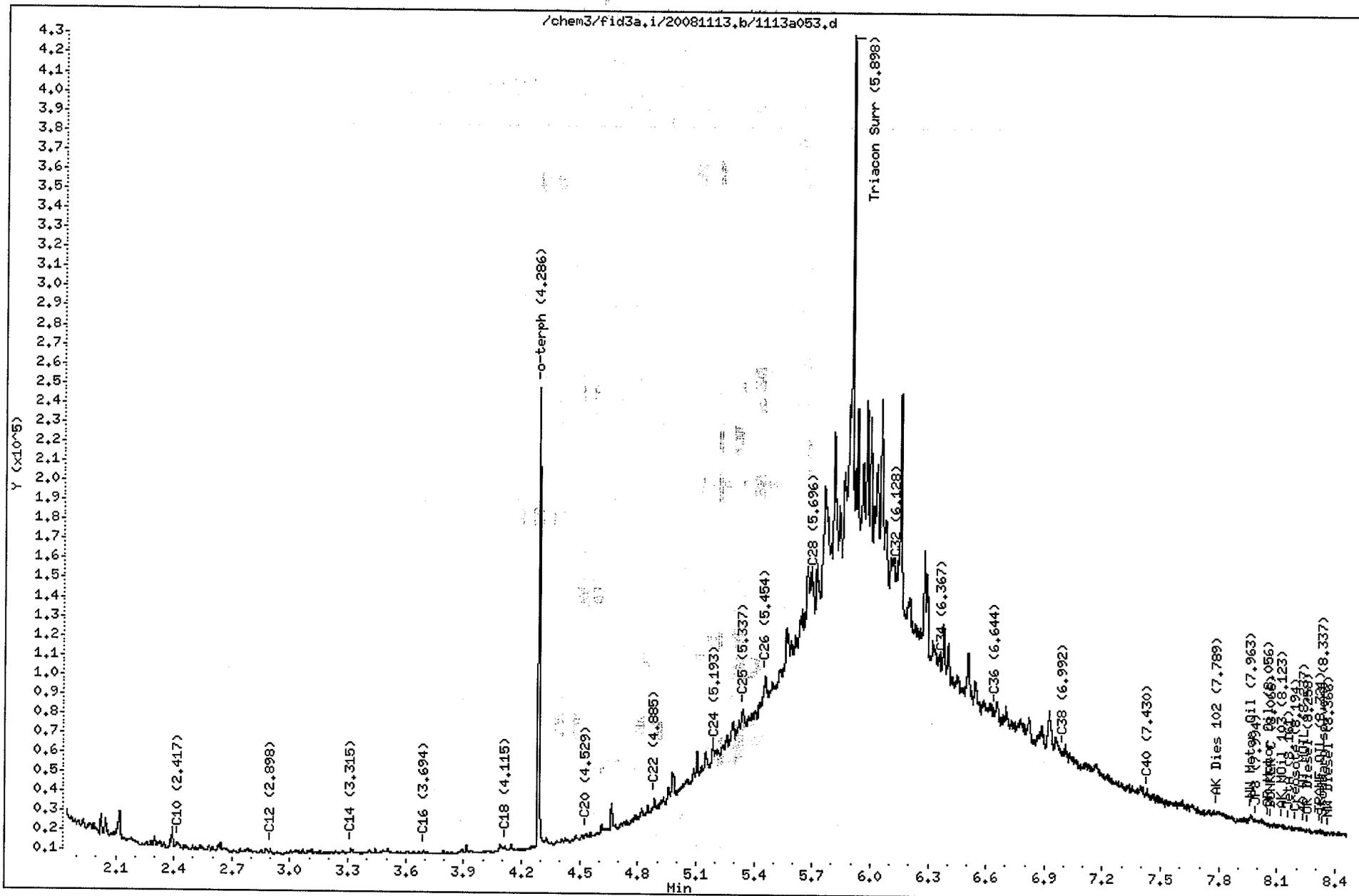
Instrument: fid3a.i

Sample Info: NX93D,5

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



**CLEANED TPHD SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-111208	92.7%	0
LCS-111208	95.6%	0
LCSD-111208	95.8%	0
TDP1-9-081103	89.3%	0
TDP1-9-081103 MS	89.2%	0
TDP1-9-081103 MSD	80.3%	0
TDP2-5-081103	91.1%	0
TDP3-5-081103	105%	0
TDP4-4-081103	97.3%	0

**LCS/MB LIMITS      QC LIMITS**

(OTER) = o-Terphenyl

(62-118)

(49-125)

Prep Method: SW3546  
Log Number Range: 08-29920 to 08-29923

**ORGANICS ANALYSIS DATA SHEET**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Sample ID: TDP1-9-081103

MS/MSD

Lab Sample ID: NX93A

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: 

Reported: 11/14/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Date Extracted MS/MSD: 11/12/08

Sample Amount MS: 8.14 g-dry-wt

MSD: 8.11 g-dry-wt

Date Analyzed MS: 11/14/08 00:14

Final Extract Volume MS: 1.0 mL

MSD: 11/14/08 00:29

MSD: 1.0 mL

Instrument/Analyst MS: FID/PKC

Dilution Factor MS: 5.0

MSD: FID/PKC

MSD: 5.0

Percent Moisture: 19.9%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	16.4	138	184	66.1%	133	185	63.0%	3.7%

**TPHD Surrogate Recovery**

	MS	MSD
o-Terphenyl	89.2%	80.3%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081113.b/1113a049.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93AMS  
Client ID:  
Injection: 14-NOV-2008 00:14  
Dilution Factor: 5

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.003	54791	53446	GAS (Tol-C12)	1607880	25
C8	1.872	-0.003	27322	34814	DIESEL (C12-C24)	3413755	225
C10	2.421	-0.002	62906	55278	M.OIL (C24-C38)	2363849	227
C12	2.899	0.000	126067	66555	AK-102 (C10-C25)	4236255	223
C14	3.313	-0.001	148947	74924	AK-103 (C25-C36)	1982413	364
C16	3.691	-0.001	138610	115884	OR.DIES (C10-C28)	4801663	245
C18	4.113	-0.002	98238	70628	OR.MOIL (C28-C40)	2164131	231
C20	4.529	-0.002	74652	55794	JET-A (C10-C18)	3063715	182
C22	4.885	-0.003	36703	30234	MIN.OIL (C24-C38)	2363849	184
C24	5.186	-0.006	23902	28236	MSPRIT (Tol-C12)	1607880	102
C25	5.334	0.005	18370	19375			
C26	5.463	0.006	19037	3415			
C28	5.693	-0.002	25956	17211			
C32	6.131	0.001	27629	14050			
C34	6.370	0.002	23230	13674			
Filter Peak	8.429	-0.002	11067	6553	JP-4 (Tol-C14)	2353414	207
C36	6.643	-0.001	21743	33928	CREOSOT (C8-C22)	4545452	729
C38	6.985	-0.002	17355	4122			
C40	7.429	-0.001	15167	5085	BUNKERC (C10-C38)	6568306	735
=====							
AZDIESEL (C10-C22)			3812967	237			
AZMOIL (C22-C32)			1632469	254			

Range Times: NW Diesel(2.949 - 5.242) NW Gas(1.724 - 2.949) NW M.Oil(5.242 - 7.037)  
AK102(2.373 - 5.279) AK103(5.279 - 6.694) Jet A(2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	139014	8.0	89.2
Triacontane	113067	6.9	76.6

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081113,b/1113a049,d

Date : 14-NOV-2008 00:14

Client ID:

Sample Info: NX93AMS,5

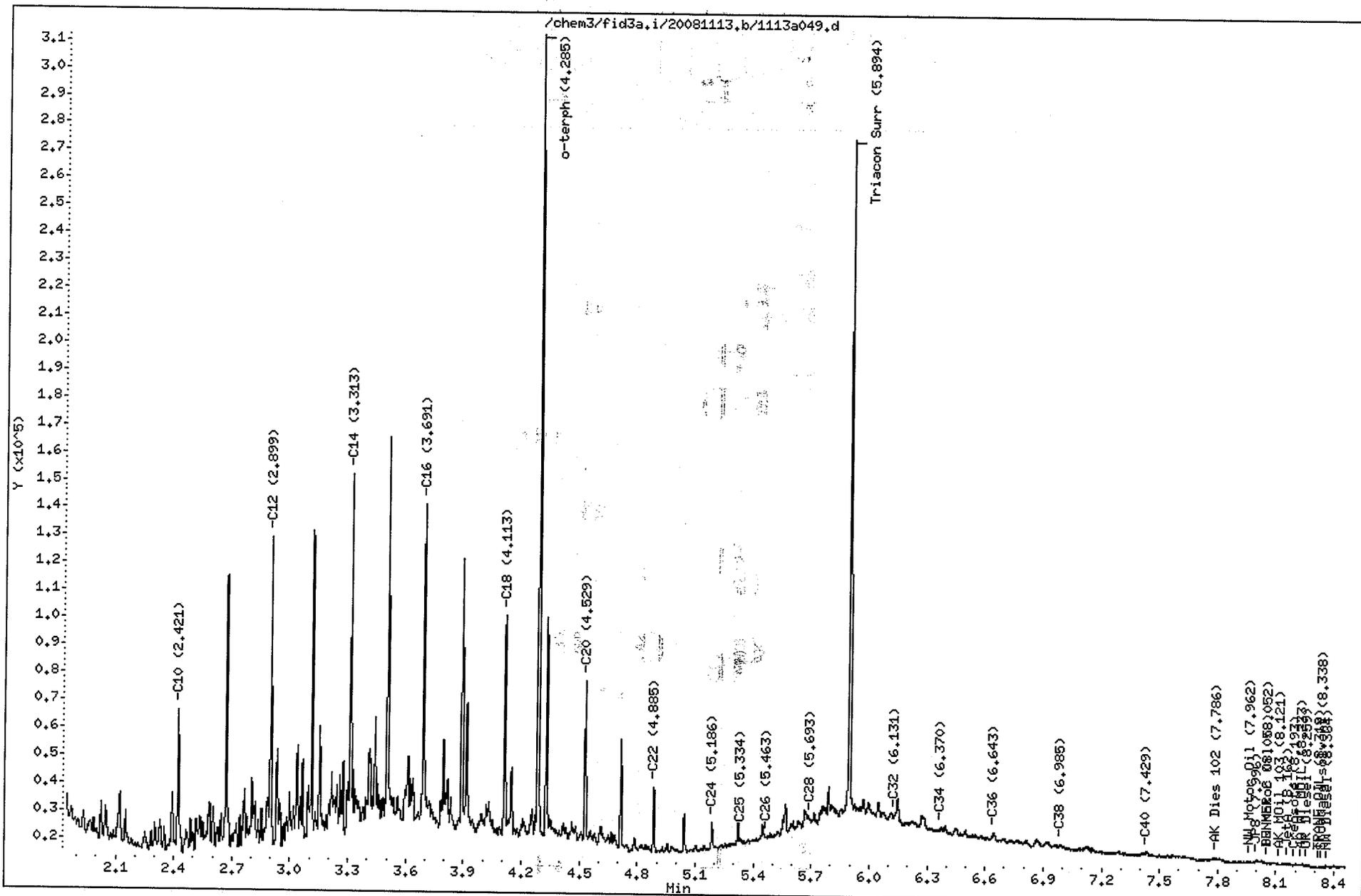
Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081113.b/1113a050.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93AMSD  
Client ID:  
Injection: 14-NOV-2008 00:29  
Dilution Factor: 5

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	55365	50155	GAS (Tol-C12)	1493494	23
C8	1.873	-0.001	26138	32004	DIESEL (C12-C24)	3252361	215
C10	2.422	-0.001	58571	41122	M.OIL (C24-C38)	2639230	253
C12	2.899	0.000	109150	51423	AK-102 (C10-C25)	4017481	212
C14	3.313	0.000	130540	63374	AK-103 (C25-C36)	2203645	405
C16	3.691	0.000	124129	91715	OR.DIES (C10-C28)	4648852	237
C18	4.113	-0.002	90438	67694	OR.MOIL (C28-C40)	2438430	260
C20	4.530	-0.002	64911	55053	JET-A (C10-C18)	2842418	169
C22	4.884	-0.003	34867	28573	MIN.OIL (C24-C38)	2639230	206
C24	5.186	-0.006	24549	35230	MSPRIT (Tol-C12)	1493494	94
C25	5.333	0.004	19405	3075			
C26	5.447	-0.010	26017	35388			
C28	5.696	0.001	28554	19232			
C32	6.133	0.003	29968	15931			
C34	6.369	0.002	26098	18445			
Filter Peak	8.431	0.000	12636	4507	JP-4 (Tol-C14)	2190226	193
C36	6.644	0.000	29203	55356	CREOSOT (C8-C22)	4281602	687
C38	6.986	-0.001	19568	3885			
C40	7.428	-0.002	18085	12380	BUNKERC (C10-C38)	6624773	741
AZDIESEL (C10-C22)			3592201	224			
AZMOIL (C22-C32)			1777580	276			

Range Times: NW Diesel (2.949 - 5.242) NW Gas (1.724 - 2.949) NW M.Oil (5.242 - 7.037)  
AK102 (2.373 - 5.279) AK103 (5.279 - 6.694) Jet A (2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	125266	7.2	80.4
Triacontane	100703	6.1	68.2

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081113.b/1113a050.d

Date : 14-NOV-2008 00:29

Client ID:

Sample Info: NX93AMSD,5

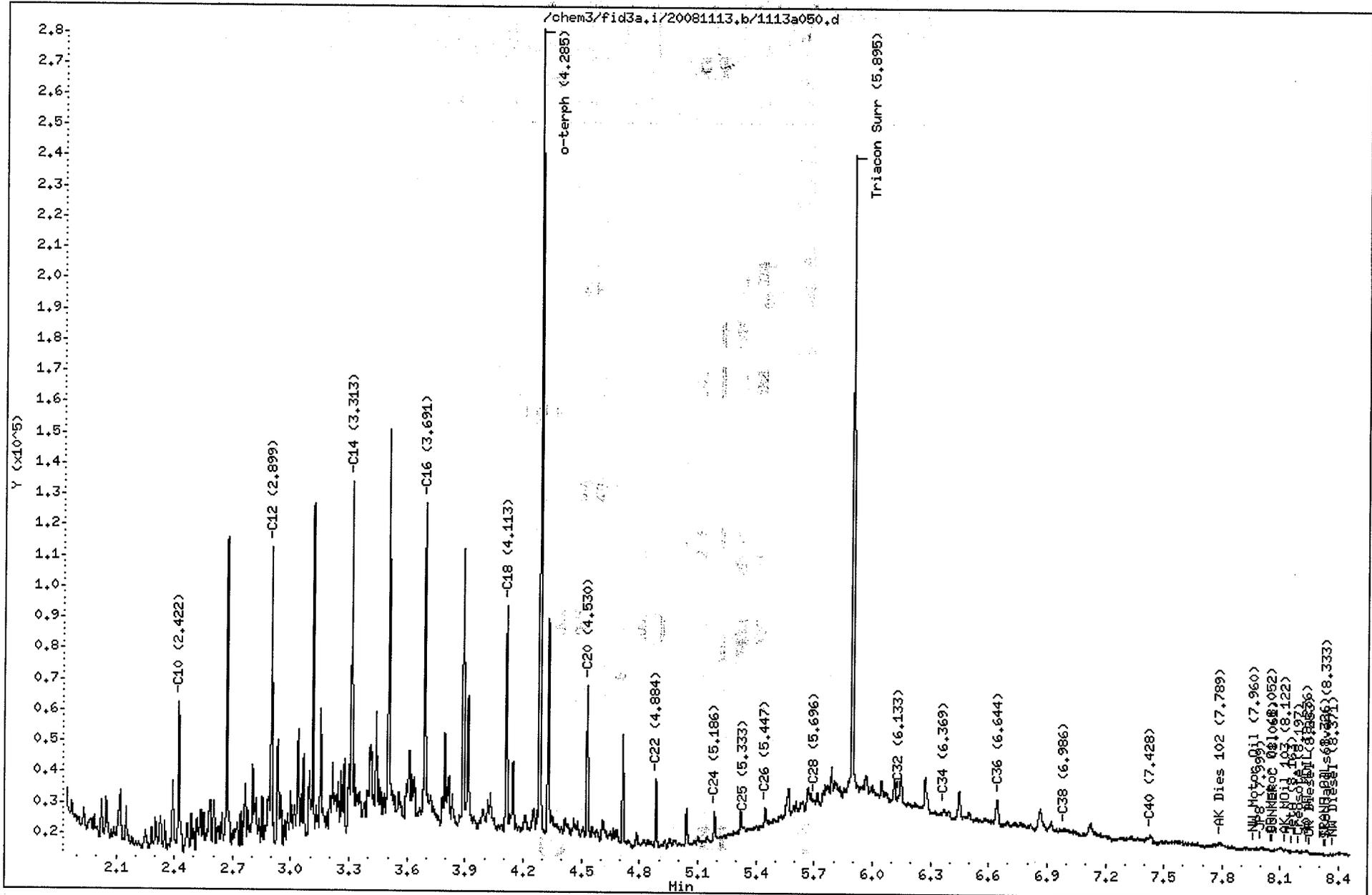
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Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



**ORGANICS ANALYSIS DATA SHEET**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Sample ID: LCS-111208

LCS/LCSD

Lab Sample ID: LCS-111208

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: 

Reported: 11/14/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Date Extracted LCS/LCSD: 11/12/08

Sample Amount LCS: 10.0 g

LCSD: 10.0 g

Date Analyzed LCS: 11/13/08 23:31

Final Extract Volume LCS: 1.0 mL

LCSD: 11/13/08 23:45

LCSD: 1.0 mL

Instrument/Analyst LCS: FID/PKC

Dilution Factor LCS: 1.0

LCSD: FID/PKC

LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	111	150	74.0%	112	150	74.7%	0.9%

**TPHD Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	95.6%	95.8%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081113.b/1113a046.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93LCSS1  
Client ID:  
Injection: 13-NOV-2008 23:31  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.770	-0.004	103536	81163	GAS (Tol-C12)	4704150	72
C8	1.871	-0.003	40115	46680	DIESEL (C12-C24)	16823740	1111
C10	2.421	-0.002	275391	171587	M.OIL (C24-C38)	905348	87
C12	2.899	0.000	605397	283289	AK-102 (C10-C25)	20285972	1069
C14	3.313	-0.001	800440	351629	AK-103 (C25-C36)	736728	135
C16	3.691	-0.001	744366	526364	OR.DIES (C10-C28)	20625368	1052
C18	4.115	0.000	531973	390542	OR.MOIL (C28-C40)	679614	73
C20	4.531	-0.001	382593	288726	JET-A (C10-C18)	15438377	917
C22	4.884	-0.004	158946	117563	MIN.OIL (C24-C38)	905348	71
C24	5.186	-0.006	71290	53857	MSPRIT (Tol-C12)	4704150	297
C25	5.334	0.005	19545	15856			
C26	5.450	-0.008	25864	30304			
C28	5.699	0.004	7478	2082			
C32	6.122	-0.008	12605	19659			
C34	6.376	0.009	7737	7924			
Filter Peak	8.425	-0.006	5281	4204	JP-4 (Tol-C14)	8685020	764
C36	6.654	0.010	12460	27779	CREOSOT (C8-C22)	20688478	3318
C38	6.982	-0.005	6263	3752			
C40	7.443	0.013	7764	14285	BUNKERC (C10-C38)	21153862	2367
AZDIESEL (C10-C22)			19192319	1195			
AZMOIL (C22-C32)			1174570	182			

Range Times: NW Diesel(2.949 - 5.242) NW Gas(1.724 - 2.949) NW M.Oil(5.242 - 7.037)  
AK102(2.373 - 5.279) AK103(5.279 - 6.694) Jet A(2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	744232	43.0	95.5
Triacontane	660733	40.3	89.5

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081113,b/1113a046.d

Date : 13-NOV-2008 23:31

Client ID:

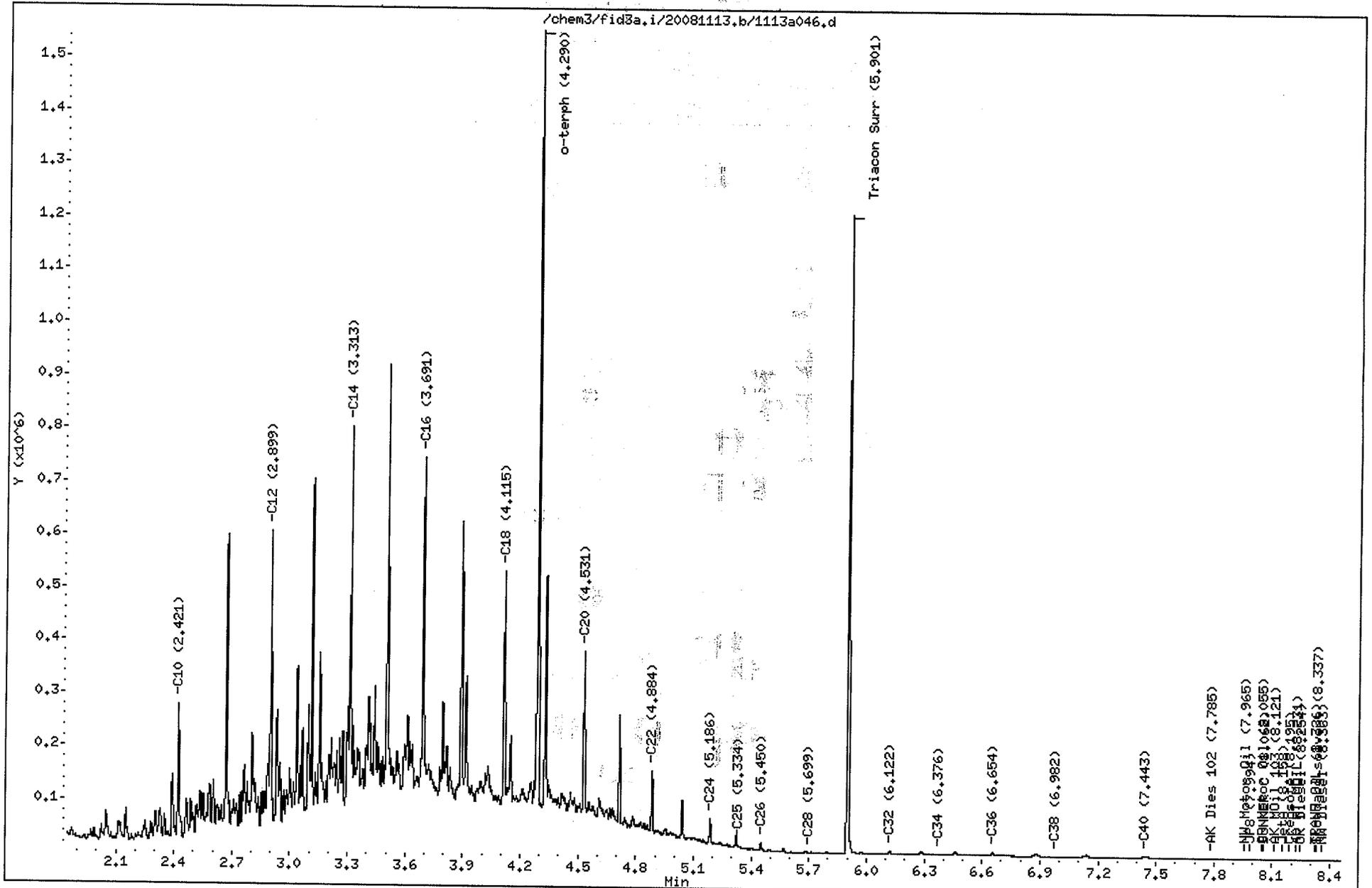
Sample Info: NX93LCSS1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081113.b/1113a047.d  
Method: /chem3/fid3a.i/20081113.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/14/2008  
Macro: FID:3A111308

ARI ID: NX93LCSDS1  
Client ID:  
Injection: 13-NOV-2008 23:45  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.003	122948	118438	GAS (Tol-C12)	4812259	74
C8	1.871	-0.003	41840	47376	DIESEL (C12-C24)	16993477	1122
C10	2.422	-0.002	297159	204312	M.OIL (C24-C38)	1018335	98
C12	2.900	0.001	586670	327048	AK-102 (C10-C25)	20507782	1080
C14	3.313	0.000	779949	357458	AK-103 (C25-C36)	826566	152
C16	3.692	0.000	737339	633524	OR.DIES (C10-C28)	20836327	1062
C18	4.116	0.001	518435	369005	OR.MOIL (C28-C40)	812415	87
C20	4.530	-0.001	374452	290711	JET-A (C10-C18)	15566382	925
C22	4.885	-0.002	160461	122771	MIN.OIL (C24-C38)	1018335	79
C24	5.188	-0.004	69859	63027	MSPRIT (Tol-C12)	4812259	304
C25	5.324	-0.005	40727	42716			
C26	5.452	-0.005	24805	24910			
C28	5.686	-0.008	10693	13063			
C32	6.122	-0.008	39032	38372			
C34	6.362	-0.005	8076	5877			
Filter Peak	8.428	-0.003	5234	4071	JP-4 (Tol-C14)	8842889	778
C36	6.653	0.009	34236	55308	CREOSOT (C8-C22)	20921845	3356
C38	6.991	0.004	6369	3810			
C40	7.437	0.007	13182	17297	BUNKERC (C10-C38)	21479277	2403
AZDIESEL (C10-C22)			19403627	1208			
AZMOIL (C22-C32)			1194603	186			

Range Times: NW Diesel (2.949 - 5.242) NW Gas (1.724 - 2.949) NW M.Oil (5.242 - 7.037)  
AK102 (2.373 - 5.279) AK103 (5.279 - 6.694) Jet A (2.373 - 4.165)

Surrogate	Area	Amount	%Rec
o-Terphenyl	746843	43.1	95.8
Triacontane	666563	40.6	90.3

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16410.4	13-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	10432.5	13-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081113.b/1113a047.d

Date : 13-NOV-2008 23:45

Client ID:

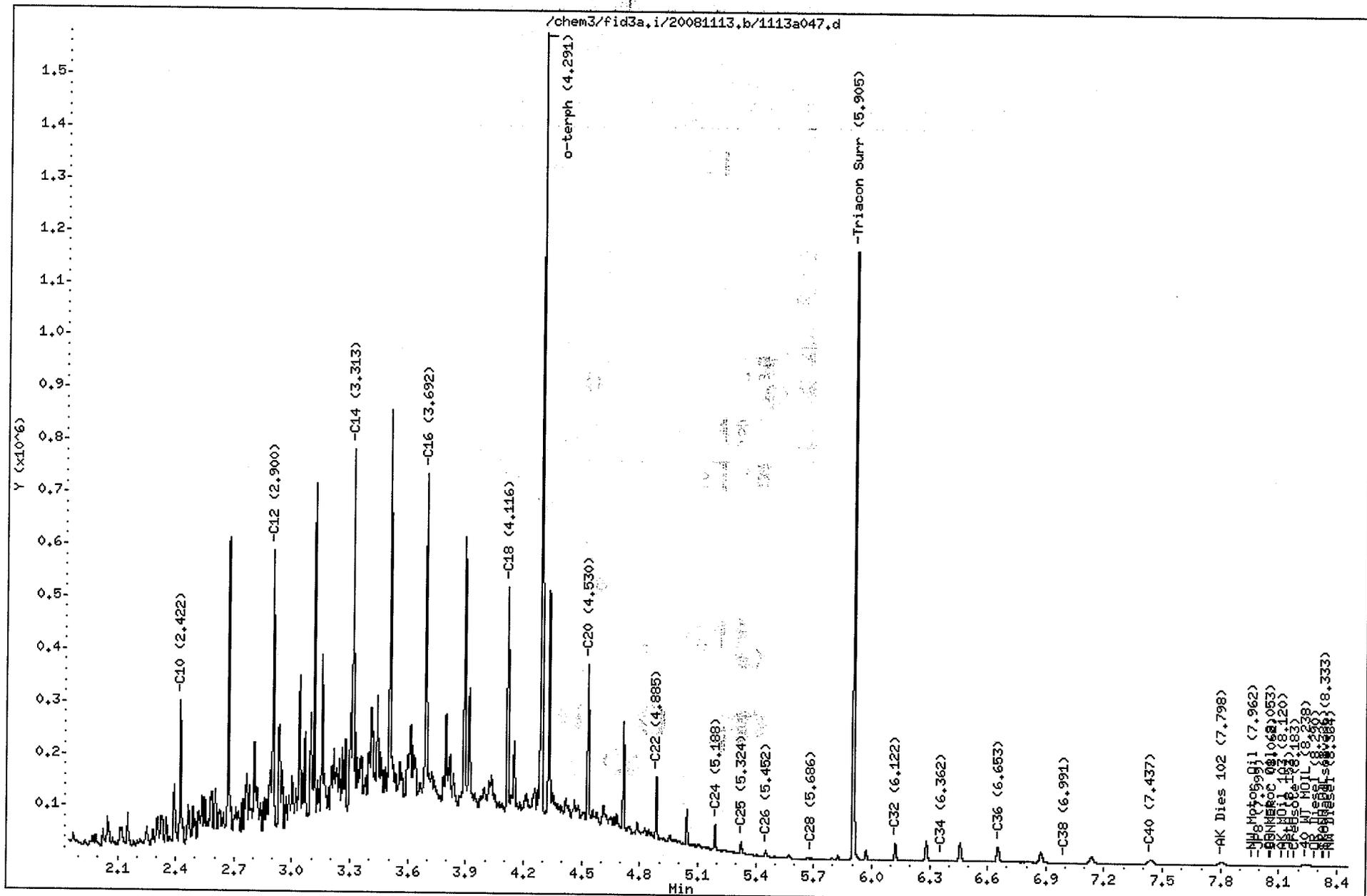
Sample Info: NX93LCSDS1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/03/08

ARI Job: NX93  
Project: BOEING THOMPSON  
025173

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
08-29920-111208MB1	Method Blank	10.0 g	1.00 mL	-	11/12/08
08-29920-111208LCS1	Lab Control	10.0 g	1.00 mL	-	11/12/08
08-29920-111208LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	11/12/08
08-29920-NX93A	TDP1-9-081103	8.54 g	1.00 mL	D	11/12/08
08-29920-NX93AMS	TDP1-9-081103	8.14 g	1.00 mL	D	11/12/08
08-29920-NX93AMSD	TDP1-9-081103	8.11 g	1.00 mL	D	11/12/08
08-29921-NX93B	TDP2-5-081103	9.35 g	1.00 mL	D	11/12/08
08-29922-NX93C	TDP3-5-081103	8.68 g	1.00 mL	D	11/12/08
08-29923-NX93D	TDP4-4-081103	8.94 g	1.00 mL	D	11/12/08

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP1-9-081103  
SAMPLE

Lab Sample ID: NX93A

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Percent Total Solids: 72.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/10/08	6010B	11/17/08	7440-38-2	Arsenic	6	9	
3050B	11/10/08	6010B	11/17/08	7440-43-9	Cadmium	0.3	0.4	
3050B	11/10/08	6010B	11/17/08	7440-47-3	Chromium	0.6	12.3	
3050B	11/10/08	6010B	11/17/08	7440-50-8	Copper	0.3	31.6	
3050B	11/10/08	6010B	11/17/08	7439-92-1	Lead	3	17	
CLP	11/10/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.06	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP2-5-081103  
SAMPLE

Lab Sample ID: NX93B

LIMS ID: 08-29921

Matrix: Soil

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Percent Total Solids: 92.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/10/08	6010B	11/17/08	7440-38-2	Arsenic	5	5	U
3050B	11/10/08	6010B	11/17/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/10/08	6010B	11/17/08	<b>7440-47-3</b>	<b>Chromium</b>	0.5	<b>21.8</b>	
3050B	11/10/08	6010B	11/17/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>23.2</b>	
3050B	11/10/08	6010B	11/17/08	<b>7439-92-1</b>	<b>Lead</b>	2	<b>2</b>	
CLP	11/10/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP3-5-081103  
SAMPLE

Lab Sample ID: NX93C

LIMS ID: 08-29922

Matrix: Soil

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Percent Total Solids: 83.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/10/08	6010B	11/17/08	7440-38-2	Arsenic	6	6	
3050B	11/10/08	6010B	11/17/08	7440-43-9	Cadmium	0.2	0.2	
3050B	11/10/08	6010B	11/17/08	7440-47-3	Chromium	0.6	21.2	
3050B	11/10/08	6010B	11/17/08	7440-50-8	Copper	0.2	24.8	
3050B	11/10/08	6010B	11/17/08	7439-92-1	Lead	2	139	
CLP	11/10/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.06	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP4-4-081103  
SAMPLE

Lab Sample ID: NX93D

LIMS ID: 08-29923

Matrix: Soil

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Percent Total Solids: 87.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/10/08	6010B	11/17/08	7440-38-2	Arsenic	6	18	
3050B	11/10/08	6010B	11/17/08	7440-43-9	Cadmium	0.2	1.0	
3050B	11/10/08	6010B	11/17/08	7440-47-3	Chromium	0.6	29.0	
3050B	11/10/08	6010B	11/17/08	7440-50-8	Copper	0.2	67.1	
3050B	11/10/08	6010B	11/17/08	7439-92-1	Lead	2	106	
CLP	11/10/08	7471A	11/14/08	7439-97-6	Mercury	0.04	0.20	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP5-5-081103  
SAMPLE

Lab Sample ID: NX93E

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29924

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: 11/03/08

Reported: 11/18/08

Date Received: 11/03/08

Percent Total Solids: 96.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/10/08	6010B	11/17/08	7440-38-2	Arsenic	5	5	U
3050B	11/10/08	6010B	11/17/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/10/08	6010B	11/17/08	<b>7440-47-3</b>	<b>Chromium</b>	0.5	<b>8.8</b>	
3050B	11/10/08	6010B	11/17/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>10.8</b>	
3050B	11/10/08	6010B	11/17/08	7439-92-1	Lead	2	2	U
CLP	11/10/08	7471A	11/14/08	7439-97-6	Mercury	0.04	0.04	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NX93LCS

LIMS ID: 08-29920

Matrix: Soil

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	197	200	98.5%	
Cadmium	6010B	47.7	50.0	95.4%	
Chromium	6010B	46.5	50.0	93.0%	
Copper	6010B	48.8	50.0	97.6%	
Lead	6010B	194	200	97.0%	
Mercury	7471A	1.02	1.00	102%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: NX93MB

QC Report No: NX93-Landau Associates, Inc.

LIMS ID: 08-29920

Project: BOEING THOMPSON

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: NA

Reported: 11/18/08

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/10/08	6010B	11/17/08	7440-38-2	Arsenic	5	5	U
3050B	11/10/08	6010B	11/17/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/10/08	6010B	11/17/08	7440-47-3	Chromium	0.5	0.5	U
3050B	11/10/08	6010B	11/17/08	7440-50-8	Copper	0.2	0.2	U
3050B	11/10/08	6010B	11/17/08	7439-92-1	Lead	2	2	U
CLP	11/10/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP1-GW-081103

SAMPLE

Lab Sample ID: NX93F

LIMS ID: 08-29925

Matrix: Water

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: 11/03/08

Date Received: 11/03/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
200.8	11/06/08	200.8	11/13/08	7440-38-2	Arsenic	0.0002	0.0128	
6010B	11/06/08	6010B	11/17/08	7440-43-9	Cadmium	0.002	0.002	U
6010B	11/06/08	6010B	11/17/08	7440-47-3	Chromium	0.005	0.006	
6010B	11/06/08	6010B	11/17/08	7440-50-8	Copper	0.002	0.002	U
200.8	11/06/08	200.8	11/13/08	7439-92-1	Lead	0.001	0.001	U
7470A	11/06/08	7470A	11/07/08	7439-97-6	Mercury	0.0001	0.0001	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NX93LCS  
LIMS ID: 08-29925  
Matrix: Water  
Data Release Authorized:   
Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: NA  
Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	0.0236	0.0250	94.4%	
Cadmium	6010B	0.493	0.500	98.6%	
Chromium	6010B	0.472	0.500	94.4%	
Copper	6010B	0.466	0.500	93.2%	
Lead	200.8	0.025	0.025	100%	
Mercury	7470A	0.0023	0.0020	115%	

Reported in mg/L

N-Control limit not met  
Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: NX93MB

LIMS ID: 08-29925

Matrix: Water

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
200.8	11/06/08	200.8	11/13/08	7440-38-2	Arsenic	0.0002	0.0002	U
6010B	11/06/08	6010B	11/17/08	7440-43-9	Cadmium	0.002	0.002	U
6010B	11/06/08	6010B	11/17/08	7440-47-3	Chromium	0.005	0.005	U
6010B	11/06/08	6010B	11/17/08	7440-50-8	Copper	0.002	0.002	U
200.8	11/06/08	200.8	11/13/08	7439-92-1	Lead	0.001	0.001	U
7470A	11/06/08	7470A	11/07/08	7439-97-6	Mercury	0.0001	0.0001	U

U-Analyte undetected at given RL

RL-Reporting Limit

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDPI-9-081103  
SAMPLE

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: 11/03/08  
Date Received: 11/03/08

Date Extracted: 11/10/08  
Date Analyzed: 11/19/08 19:53  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.11 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 19.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	62	< 62 U
111-44-4	Bis-(2-Chloroethyl) Ether	62	< 62 U
95-57-8	2-Chlorophenol	62	< 62 U
541-73-1	1,3-Dichlorobenzene	62	< 62 U
106-46-7	1,4-Dichlorobenzene	62	< 62 U
100-51-6	Benzyl Alcohol	62	< 62 U
95-50-1	1,2-Dichlorobenzene	62	< 62 U
95-48-7	2-Methylphenol	62	< 62 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	62	< 62 U
106-44-5	4-Methylphenol	62	< 62 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	62	< 62 U
98-95-3	Nitrobenzene	62	< 62 U
78-59-1	Isophorone	62	< 62 U
88-75-5	2-Nitrophenol	62	< 62 U
105-67-9	2,4-Dimethylphenol	62	< 62 U
65-85-0	Benzoic Acid	620	< 620 U
111-91-1	bis(2-Chloroethoxy) Methane	62	< 62 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	62	< 62 U
91-20-3	Naphthalene	62	< 62 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	62	< 62 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	62	< 62 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	62	< 62 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	62	< 62 U
208-96-8	Acenaphthylene	62	< 62 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	62	< 62 U
51-28-5	2,4-Dinitrophenol	620	< 620 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	62	< 62 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP1-9-081103  
SAMPLE

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil  
Date Analyzed: 11/19/08 19:53

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	62	< 62 U
7005-72-3	4-Chlorophenyl-phenylether	62	< 62 U
86-73-7	Fluorene	62	< 62 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	620	< 620 U
86-30-6	N-Nitrosodiphenylamine	62	< 62 U
101-55-3	4-Bromophenyl-phenylether	62	< 62 U
118-74-1	Hexachlorobenzene	62	< 62 U
87-86-5	Pentachlorophenol	310	< 310 U
85-01-8	Phenanthrene	62	< 62 U
86-74-8	Carbazole	62	< 62 U
120-12-7	Anthracene	62	< 62 U
84-74-2	Di-n-Butylphthalate	62	< 62 U
206-44-0	Fluoranthene	62	< 62 U
129-00-0	Pyrene	62	< 62 U
85-68-7	Butylbenzylphthalate	62	< 62 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo (a) anthracene	62	< 62 U
117-81-7	bis (2-Ethylhexyl) phthalate	62	< 62 U
218-01-9	Chrysene	62	< 62 U
117-84-0	Di-n-Octyl phthalate	62	< 62 U
205-99-2	Benzo (b) fluoranthene	62	< 62 U
207-08-9	Benzo (k) fluoranthene	62	< 62 U
50-32-8	Benzo (a) pyrene	62	< 62 U
193-39-5	Indeno (1,2,3-cd) pyrene	62	< 62 U
53-70-3	Dibenz (a,h) anthracene	62	< 62 U
191-24-2	Benzo (g,h,i) perylene	62	< 62 U
90-12-0	1-Methylnaphthalene	62	< 62 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	82.8%
d14-p-Terphenyl	77.6%	d4-1,2-Dichlorobenzene	80.8%
d5-Phenol	72.0%	2-Fluorophenol	73.6%
2,4,6-Tribromophenol	94.7%	d4-2-Chlorophenol	77.3%

**SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.

Project: BOEING THOMPSON

025173

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-111008	88.4%	95.6%	104%	93.2%	89.1%	84.3%	111%	90.7%	0	
LCS-111008	92.0%	102%	115%	92.8%	83.7%	87.2%	122%	93.1%	0	
LCSD-111008	92.0%	106%	117%	90.8%	81.6%	86.4%	125%	93.1%	0	
TDP1-9-081103	77.6%	82.8%	77.6%	80.8%	72.0%	73.6%	94.7%	77.3%	0	
TDP1-9-081103 MS	80.4%	90.8%	94.8%	76.4%	79.5%	75.5%	105%	80.3%	0	
TDP1-9-081103 MSD	77.2%	86.0%	96.0%	74.8%	76.3%	72.5%	106%	77.3%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546

Log Number Range: 08-29920 to 08-29920

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP1-9-081103  
MS/MSD

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: 11/03/08  
Date Received: 11/03/08

Date Extracted MS/MSD: 11/10/08  
Date Analyzed MS: 11/19/08 20:27  
MSD: 11/19/08 21:02  
Instrument/Analyst MS: NT4/LJR  
MSD: NT4/LJR  
GPC Cleanup: NO

Sample Amount MS: 8.14 g-dry-wt  
MSD: 8.07 g-dry-wt  
Final Extract Volume MS: 0.5 mL  
MSD: 0.5 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Percent Moisture: 19.9 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 61.7	1360	1540	88.3%	1350	1550	87.1%	0.7%
Bis-(2-Chloroethyl) Ether	< 61.7	1170	1540	76.0%	861	1550	55.5%	30.4%
2-Chlorophenol	< 61.7	1300	1540	84.4%	1320	1550	85.2%	1.5%
1,3-Dichlorobenzene	< 61.7	1250	1540	81.2%	1290	1550	83.2%	3.1%
1,4-Dichlorobenzene	< 61.7	1270	1540	82.5%	1310	1550	84.5%	3.1%
Benzyl Alcohol	< 61.7	2150	3070	70.0%	2200	3100	71.0%	2.3%
1,2-Dichlorobenzene	< 61.7	1270	1540	82.5%	1320	1550	85.2%	3.9%
2-Methylphenol	< 61.7	1290	1540	83.8%	1300	1550	83.9%	0.8%
2,2'-Oxybis(1-Chloropropane)	< 61.7	1080	1540	70.1%	1120	1550	72.3%	3.6%
4-Methylphenol	< 61.7	2630	3070	85.7%	2630	3100	84.8%	0.0%
N-Nitroso-Di-N-Propylamine	< 308	1150	1540	74.7%	1160	1550	74.8%	0.9%
Hexachloroethane	< 61.7	1160	1540	75.3%	1140	1550	73.5%	1.7%
Nitrobenzene	< 61.7	1120	1540	72.7%	1130	1550	72.9%	0.9%
Isophorone	< 61.7	1370	1540	89.0%	1350	1550	87.1%	1.5%
2-Nitrophenol	< 61.7	1490	1540	96.8%	1470	1550	94.8%	1.4%
2,4-Dimethylphenol	< 61.7	1430	1540	92.9%	1400	1550	90.3%	2.1%
Benzoic Acid	< 617	4410	4610	95.7%	4440	4650	95.5%	0.7%
bis(2-Chloroethoxy) Methane	< 61.7	1320	1540	85.7%	1330	1550	85.8%	0.8%
2,4-Dichlorophenol	< 308	1540	1540	100%	1520	1550	98.1%	1.3%
1,2,4-Trichlorobenzene	< 61.7	1430	1540	92.9%	1430	1550	92.3%	0.0%
Naphthalene	< 61.7	1470	1540	95.5%	1450	1550	93.5%	1.4%
4-Chloroaniline	< 308	4230	3690	115%	4480	3720	120%	5.7%
Hexachlorobutadiene	< 61.7	1480	1540	96.1%	1440	1550	92.9%	2.7%
4-Chloro-3-methylphenol	< 308	1510	1540	98.1%	1510	1550	97.4%	0.0%
2-Methylnaphthalene	< 61.7	1480	1540	96.1%	1480	1550	95.5%	0.0%
Hexachlorocyclopentadiene	< 308	1360	4610	29.5%	1160	4650	24.9%	15.9%
2,4,6-Trichlorophenol	< 308	1540	1540	100%	1560	1550	101%	1.3%
2,4,5-Trichlorophenol	< 308	1510	1540	98.1%	1520	1550	98.1%	0.7%
2-Chloronaphthalene	< 61.7	1630	1540	106%	1630	1550	105%	0.0%
2-Nitroaniline	< 308	1460	1540	94.8%	1460	1550	94.2%	0.0%
Dimethylphthalate	< 61.7	1480	1540	96.1%	1440	1550	92.9%	2.7%
Acenaphthylene	< 61.7	1540	1540	100%	1550	1550	100%	0.6%
3-Nitroaniline	< 308	3020	3930	76.8%	3040	3970	76.6%	0.7%
Acenaphthene	< 61.7	1530	1540	99.4%	1520	1550	98.1%	0.7%
2,4-Dinitrophenol	< 617	4680	4610	102%	4490	4650	96.6%	4.1%
4-Nitrophenol	< 308	1470	1540	95.5%	1480	1550	95.5%	0.7%
Dibenzofuran	< 61.7	1490	1540	96.8%	1520	1550	98.1%	2.0%
2,6-Dinitrotoluene	< 308	1760	1540	114%	1740	1550	112%	1.1%
2,4-Dinitrotoluene	< 308	1690	1540	110%	1700	1550	110%	0.6%
Diethylphthalate	< 61.7	1530	1540	99.4%	1530	1550	98.7%	0.0%
4-Chlorophenyl-phenylether	< 61.7	1550	1540	101%	1610	1550	104%	3.8%
Fluorene	< 61.7	1540	1540	100%	1600	1550	103%	3.8%
4-Nitroaniline	< 308	1430	1540	92.9%	1440	1550	92.9%	0.7%
4,6-Dinitro-2-Methylphenol	< 617	2670	4610	57.9%	2370	4650	51.0%	11.9%
N-Nitrosodiphenylamine	< 61.7	1460	1540	94.8%	1460	1550	94.2%	0.0%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP1-9-081103  
MS/MSD

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

Date Analyzed MS: 11/19/08 20:27  
MSD: 11/19/08 21:02

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 61.7	1520	1540	98.7%	1480	1550	95.5%	2.7%
Hexachlorobenzene	< 61.7	1590	1540	103%	1540	1550	99.4%	3.2%
Pentachlorophenol	< 308	1800	1540	117%	1820	1550	117%	1.1%
Phenanthrene	< 61.7	1580	1540	103%	1550	1550	100%	1.9%
Carbazole	< 61.7	1620	1540	105%	1570	1550	101%	3.1%
Anthracene	< 61.7	1500	1540	97.4%	1470	1550	94.8%	2.0%
Di-n-Butylphthalate	< 61.7	1480	1540	96.1%	1450	1550	93.5%	2.0%
Fluoranthene	< 61.7	1730	1540	112%	1680	1550	108%	2.9%
Pyrene	< 61.7	1560	1540	101%	1650	1550	106%	5.6%
Butylbenzylphthalate	< 61.7	1500	1540	97.4%	1590	1550	103%	5.8%
3,3'-Dichlorobenzidine	< 308	2860	3930	72.8%	3150	3970	79.3%	9.7%
Benzo(a)anthracene	< 61.7	1590	1540	103%	1610	1550	104%	1.2%
bis(2-Ethylhexyl)phthalate	< 61.7	1530	1540	99.4%	1530	1550	98.7%	0.0%
Chrysene	< 61.7	1570	1540	102%	1550	1550	100%	1.3%
Di-n-Octyl phthalate	< 61.7	1500	1540	97.4%	1490	1550	96.1%	0.7%
Benzo(b)fluoranthene	< 61.7	1860	1540	121%	2120	1550	137%	13.1%
Benzo(k)fluoranthene	< 61.7	2250	1540	146%	1910	1550	123%	16.3%
Benzo(a)pyrene	< 61.7	1340	1540	87.0%	1320	1550	85.2%	1.5%
Indeno(1,2,3-cd)pyrene	< 61.7	784	1540	50.9%	813	1550	52.5%	3.6%
Dibenz(a,h)anthracene	< 61.7	810	1540	52.6%	848	1550	54.7%	4.6%
Benzo(g,h,i)perylene	< 61.7	648	1540	42.1%	678	1550	43.7%	4.5%
1-Methylnaphthalene	< 61.7	1560	1540	101%	1570	1550	101%	0.6%

Results reported in  $\mu\text{g}/\text{kg}$   
RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP1-9-081103  
MATRIX SPIKE

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: 11/03/08  
Date Received: 11/03/08

Date Extracted: 11/10/08  
Date Analyzed: 11/19/08 20:27  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.14 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 19.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	61	---
111-44-4	Bis-(2-Chloroethyl) Ether	61	---
95-57-8	2-Chlorophenol	61	---
541-73-1	1,3-Dichlorobenzene	61	---
106-46-7	1,4-Dichlorobenzene	61	---
100-51-6	Benzyl Alcohol	61	---
95-50-1	1,2-Dichlorobenzene	61	---
95-48-7	2-Methylphenol	61	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	61	---
106-44-5	4-Methylphenol	61	---
621-64-7	N-Nitroso-Di-N-Propylamine	310	---
67-72-1	Hexachloroethane	61	---
98-95-3	Nitrobenzene	61	---
78-59-1	Isophorone	61	---
88-75-5	2-Nitrophenol	61	---
105-67-9	2,4-Dimethylphenol	61	---
65-85-0	Benzoic Acid	610	---
111-91-1	bis(2-Chloroethoxy) Methane	61	---
120-83-2	2,4-Dichlorophenol	310	---
120-82-1	1,2,4-Trichlorobenzene	61	---
91-20-3	Naphthalene	61	---
106-47-8	4-Chloroaniline	310	---
87-68-3	Hexachlorobutadiene	61	---
59-50-7	4-Chloro-3-methylphenol	310	---
91-57-6	2-Methylnaphthalene	61	---
77-47-4	Hexachlorocyclopentadiene	310	---
88-06-2	2,4,6-Trichlorophenol	310	---
95-95-4	2,4,5-Trichlorophenol	310	---
91-58-7	2-Chloronaphthalene	61	---
88-74-4	2-Nitroaniline	310	---
131-11-3	Dimethylphthalate	61	---
208-96-8	Acenaphthylene	61	---
99-09-2	3-Nitroaniline	310	---
83-32-9	Acenaphthene	61	---
51-28-5	2,4-Dinitrophenol	610	---
100-02-7	4-Nitrophenol	310	---
132-64-9	Dibenzofuran	61	---
606-20-2	2,6-Dinitrotoluene	310	---
121-14-2	2,4-Dinitrotoluene	310	---

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDPI-9-081103  
MATRIX SPIKE

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil  
Date Analyzed: 11/19/08 20:27

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	61	---
7005-72-3	4-Chlorophenyl-phenylether	61	---
86-73-7	Fluorene	61	---
100-01-6	4-Nitroaniline	310	---
534-52-1	4,6-Dinitro-2-Methylphenol	610	---
86-30-6	N-Nitrosodiphenylamine	61	---
101-55-3	4-Bromophenyl-phenylether	61	---
118-74-1	Hexachlorobenzene	61	---
87-86-5	Pentachlorophenol	310	---
85-01-8	Phenanthrene	61	---
86-74-8	Carbazole	61	---
120-12-7	Anthracene	61	---
84-74-2	Di-n-Butylphthalate	61	---
206-44-0	Fluoranthene	61	---
129-00-0	Pyrene	61	---
85-68-7	Butylbenzylphthalate	61	---
91-94-1	3,3'-Dichlorobenzidine	310	---
56-55-3	Benzo(a)anthracene	61	---
117-81-7	bis(2-Ethylhexyl)phthalate	61	---
218-01-9	Chrysene	61	---
117-84-0	Di-n-Octyl phthalate	61	---
205-99-2	Benzo(b)fluoranthene	61	---
207-08-9	Benzo(k)fluoranthene	61	---
50-32-8	Benzo(a)pyrene	61	---
193-39-5	Indeno(1,2,3-cd)pyrene	61	---
53-70-3	Dibenz(a,h)anthracene	61	---
191-24-2	Benzo(g,h,i)perylene	61	---
90-12-0	1-Methylnaphthalene	61	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	80.4%	2-Fluorobiphenyl	90.8%
d14-p-Terphenyl	94.8%	d4-1,2-Dichlorobenzene	76.4%
d5-Phenol	79.5%	2-Fluorophenol	75.5%
2,4,6-Tribromophenol	105%	d4-2-Chlorophenol	80.3%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP1-9-081103  
MATRIX SPIKE DUPLICATE

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: 11/03/08  
Date Received: 11/03/08

Date Extracted: 11/10/08  
Date Analyzed: 11/19/08 21:02  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.07 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 19.9%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	62	---
111-44-4	Bis-(2-Chloroethyl) Ether	62	---
95-57-8	2-Chlorophenol	62	---
541-73-1	1,3-Dichlorobenzene	62	---
106-46-7	1,4-Dichlorobenzene	62	---
100-51-6	Benzyl Alcohol	62	---
95-50-1	1,2-Dichlorobenzene	62	---
95-48-7	2-Methylphenol	62	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	62	---
106-44-5	4-Methylphenol	62	---
621-64-7	N-Nitroso-Di-N-Propylamine	310	---
67-72-1	Hexachloroethane	62	---
98-95-3	Nitrobenzene	62	---
78-59-1	Isophorone	62	---
88-75-5	2-Nitrophenol	62	---
105-67-9	2,4-Dimethylphenol	62	---
65-85-0	Benzoic Acid	620	---
111-91-1	bis(2-Chloroethoxy) Methane	62	---
120-83-2	2,4-Dichlorophenol	310	---
120-82-1	1,2,4-Trichlorobenzene	62	---
91-20-3	Naphthalene	62	---
106-47-8	4-Chloroaniline	310	---
87-68-3	Hexachlorobutadiene	62	---
59-50-7	4-Chloro-3-methylphenol	310	---
91-57-6	2-Methylnaphthalene	62	---
77-47-4	Hexachlorocyclopentadiene	310	---
88-06-2	2,4,6-Trichlorophenol	310	---
95-95-4	2,4,5-Trichlorophenol	310	---
91-58-7	2-Chloronaphthalene	62	---
88-74-4	2-Nitroaniline	310	---
131-11-3	Dimethylphthalate	62	---
208-96-8	Acenaphthylene	62	---
99-09-2	3-Nitroaniline	310	---
83-32-9	Acenaphthene	62	---
51-28-5	2,4-Dinitrophenol	620	---
100-02-7	4-Nitrophenol	310	---
132-64-9	Dibenzofuran	62	---
606-20-2	2,6-Dinitrotoluene	310	---
121-14-2	2,4-Dinitrotoluene	310	---

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP1-9-081103  
MATRIX SPIKE DUPLICATE

Lab Sample ID: NX93A  
LIMS ID: 08-29920  
Matrix: Soil  
Date Analyzed: 11/19/08 21:02

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	62	---
7005-72-3	4-Chlorophenyl-phenylether	62	---
86-73-7	Fluorene	62	---
100-01-6	4-Nitroaniline	310	---
534-52-1	4,6-Dinitro-2-Methylphenol	620	---
86-30-6	N-Nitrosodiphenylamine	62	---
101-55-3	4-Bromophenyl-phenylether	62	---
118-74-1	Hexachlorobenzene	62	---
87-86-5	Pentachlorophenol	310	---
85-01-8	Phenanthrene	62	---
86-74-8	Carbazole	62	---
120-12-7	Anthracene	62	---
84-74-2	Di-n-Butylphthalate	62	---
206-44-0	Fluoranthene	62	---
129-00-0	Pyrene	62	---
85-68-7	Butylbenzylphthalate	62	---
91-94-1	3,3'-Dichlorobenzidine	310	---
56-55-3	Benzo (a) anthracene	62	---
117-81-7	bis (2-Ethylhexyl) phthalate	62	---
218-01-9	Chrysene	62	---
117-84-0	Di-n-Octyl phthalate	62	---
205-99-2	Benzo (b) fluoranthene	62	---
207-08-9	Benzo (k) fluoranthene	62	---
50-32-8	Benzo (a) pyrene	62	---
193-39-5	Indeno (1,2,3-cd) pyrene	62	---
53-70-3	Dibenz (a, h) anthracene	62	---
191-24-2	Benzo (g, h, i) perylene	62	---
90-12-0	1-Methylnaphthalene	62	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	77.2%	2-Fluorobiphenyl	86.0%
d14-p-Terphenyl	96.0%	d4-1,2-Dichlorobenzene	74.8%
d5-Phenol	76.3%	2-Fluorophenol	72.5%
2,4,6-Tribromophenol	106%	d4-2-Chlorophenol	77.3%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-111008  
LCS/LCSD

Lab Sample ID: LCS-111008  
LIMS ID: 08-29920  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: 11/03/08  
Date Received: 11/03/08

Date Extracted LCS/LCSD: 11/10/08

Sample Amount LCS: 7.50 g

LCSD: 7.50 g

Date Analyzed LCS: 11/18/08 12:31

Final Extract Volume LCS: 0.5 mL

LCSD: 11/18/08 13:06

LCSD: 0.5 mL

Instrument/Analyst LCS: NT4/LJR

Dilution Factor LCS: 1.00

LCSD: NT4/LJR

LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	LCSD		
Phenol	1790	1670	107%	1810	1670	108%	1.1%		
Bis-(2-Chloroethyl) Ether	1530	1670	91.6%	1550	1670	92.8%	1.3%		
2-Chlorophenol	1660	1670	99.4%	1690	1670	101%	1.8%		
1,3-Dichlorobenzene	1610	1670	96.4%	1650	1670	98.8%	2.5%		
1,4-Dichlorobenzene	1640	1670	98.2%	1650	1670	98.8%	0.6%		
Benzyl Alcohol	2960	3330	88.9%	2940	3330	88.3%	0.7%		
1,2-Dichlorobenzene	1650	1670	98.8%	1680	1670	101%	1.8%		
2-Methylphenol	1690	1670	101%	1690	1670	101%	0.0%		
2,2'-Oxybis(1-Chloropropane)	1410	1670	84.4%	1430	1670	85.6%	1.4%		
4-Methylphenol	3310	3330	99.4%	3320	3330	99.7%	0.3%		
N-Nitroso-Di-N-Propylamine	1500	1670	89.8%	1510	1670	90.4%	0.7%		
Hexachloroethane	1590	1670	95.2%	1630	1670	97.6%	2.5%		
Nitrobenzene	1410	1670	84.4%	1430	1670	85.6%	1.4%		
Isophorone	1720	1670	103%	1750	1670	105%	1.7%		
2-Nitrophenol	1830	1670	110%	1860	1670	111%	1.6%		
2,4-Dimethylphenol	1640	1670	98.2%	1680	1670	101%	2.4%		
Benzoic Acid	1400	5000	28.0%	1390	5000	27.8%	0.7%		
bis(2-Chloroethoxy) Methane	1660	1670	99.4%	1680	1670	101%	1.2%		
2,4-Dichlorophenol	1990	1670	119%	2070	1670	124%	3.9%		
1,2,4-Trichlorobenzene	1750	1670	105%	1830	1670	110%	4.5%		
Naphthalene	1780	1670	107%	1830	1670	110%	2.8%		
4-Chloroaniline	7350	4000	184%	7330	4000	183%	0.3%		
Hexachlorobutadiene	1820	1670	109%	1870	1670	112%	2.7%		
4-Chloro-3-methylphenol	1940	1670	116%	1980	1670	119%	2.0%		
2-Methylnaphthalene	1840	1670	110%	1900	1670	114%	3.2%		
Hexachlorocyclopentadiene	4970	5000	99.4%	5190	5000	104%	4.3%		
2,4,6-Trichlorophenol	1960	1670	117%	2010	1670	120%	2.5%		
2,4,5-Trichlorophenol	1910	1670	114%	2040	1670	122%	6.6%		
2-Chloronaphthalene	2000	1670	120%	2090	1670	125%	4.4%		
2-Nitroaniline	1880	1670	113%	1950	1670	117%	3.7%		
Dimethylphthalate	1890	1670	113%	1940	1670	116%	2.6%		
Acenaphthylene	1900	1670	114%	1960	1670	117%	3.1%		
3-Nitroaniline	5070	4270	119%	5090	4270	119%	0.4%		
Acenaphthene	1890	1670	113%	1960	1670	117%	3.6%		

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCSD-111008  
LCS/LCSD

Lab Sample ID: LCS-111008  
LIMS ID: 08-29920  
Matrix: Soil  
Date Analyzed LCS: 11/18/08 12:31  
LCSD: 11/18/08 13:06

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	6520	5000	130%	6880	5000	138%	5.4%
4-Nitrophenol	2170	1670	130%	2090	1670	125%	3.8%
Dibenzofuran	1900	1670	114%	2020	1670	121%	6.1%
2,6-Dinitrotoluene	2230	1670	134%	2260	1670	135%	1.3%
2,4-Dinitrotoluene	2210	1670	132%	2340	1670	140%	5.7%
Diethylphthalate	2010	1670	120%	2080	1670	125%	3.4%
4-Chlorophenyl-phenylether	2010	1670	120%	2150	1670	129%	6.7%
Fluorene	2040	1670	122%	2170	1670	130%	6.2%
4-Nitroaniline	2040	1670	122%	2120	1670	127%	3.8%
4,6-Dinitro-2-Methylphenol	4040	5000	80.8%	4240	5000	84.8%	4.8%
N-Nitrosodiphenylamine	1880	1670	113%	1940	1670	116%	3.1%
4-Bromophenyl-phenylether	1890	1670	113%	2030	1670	122%	7.1%
Hexachlorobenzene	1980	1670	119%	2160	1670	129%	8.7%
Pentachlorophenol	2140	1670	128%	2180	1670	131%	1.9%
Phenanthrene	1900	1670	114%	1990	1670	119%	4.6%
Carbazole	1930	1670	116%	2000	1670	120%	3.6%
Anthracene	1890	1670	113%	2010	1670	120%	6.2%
Di-n-Butylphthalate	1920	1670	115%	1980	1670	119%	3.1%
Fluoranthene	1980	1670	119%	2040	1670	122%	3.0%
Pyrene	1960	1670	117%	2070	1670	124%	5.5%
Butylbenzylphthalate	1950	1670	117%	2000	1670	120%	2.5%
3,3'-Dichlorobenzidine	4990	4270	117%	5080	4270	119%	1.8%
Benzo(a)anthracene	1930	1670	116%	1980	1670	119%	2.6%
bis(2-Ethylhexyl)phthalate	1930	1670	116%	1970	1670	118%	2.1%
Chrysene	1970	1670	118%	2020	1670	121%	2.5%
Di-n-Octyl phthalate	1910	1670	114%	1940	1670	116%	1.6%
Benzo(b)fluoranthene	2020	1670	121%	2050	1670	123%	1.5%
Benzo(k)fluoranthene	1940	1670	116%	1990	1670	119%	2.5%
Benzo(a)pyrene	1680	1670	101%	1710	1670	102%	1.8%
Indeno(1,2,3-cd)pyrene	1830	1670	110%	1870	1670	112%	2.2%
Dibenz(a,h)anthracene	1850	1670	111%	1900	1670	114%	2.7%
Benzo(g,h,i)perylene	1650	1670	98.8%	1700	1670	102%	3.0%
1-Methylnaphthalene	1940	1670	116%	2000	1670	120%	3.0%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	92.0%	92.0%
2-Fluorobiphenyl	102%	106%
d14-p-Terphenyl	115%	117%
d4-1,2-Dichlorobenzene	92.8%	90.8%
d5-Phenol	83.7%	81.6%
2-Fluorophenol	87.2%	86.4%
2,4,6-Tribromophenol	122%	125%
d4-2-Chlorophenol	93.1%	93.1%

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

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-111008  
METHOD BLANK

Lab Sample ID: MB-111008  
LIMS ID: 08-29920  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 11:56  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-111008  
METHOD BLANK

Lab Sample ID: MB-111008  
LIMS ID: 08-29920  
Matrix: Soil  
Date Analyzed: 11/18/08 11:56

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo (a) anthracene	67	< 67 U
117-81-7	bis (2-Ethylhexyl) phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo (b) fluoranthene	67	< 67 U
207-08-9	Benzo (k) fluoranthene	67	< 67 U
50-32-8	Benzo (a) pyrene	67	< 67 U
193-39-5	Indeno (1,2,3-cd) pyrene	67	< 67 U
53-70-3	Dibenz (a,h) anthracene	67	< 67 U
191-24-2	Benzo (g,h,i) perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	88.4%	2-Fluorobiphenyl	95.6%
d14-p-Terphenyl	104%	d4-1,2-Dichlorobenzene	93.2%
d5-Phenol	89.1%	2-Fluorophenol	84.3%
2,4,6-Tribromophenol	111%	d4-2-Chlorophenol	90.7%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP1-GW-081103  
SAMPLE

Lab Sample ID: NX93F  
LIMS ID: 08-29925  
Matrix: Water  
Data Release Authorized:   
Reported: 11/10/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: 11/03/08  
Date Received: 11/03/08

Date Extracted: 11/05/08  
Date Analyzed: 11/08/08 02:09  
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
<b>91-57-6</b>	<b>2-Methylnaphthalene</b>	<b>1.0</b>	<b>7.9</b>
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
<b>83-32-9</b>	<b>Acenaphthene</b>	<b>1.0</b>	<b>14</b>
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP1-GW-081103  
SAMPLE

Lab Sample ID: NX93F  
LIMS ID: 08-29925  
Matrix: Water  
Date Analyzed: 11/08/08 02:09

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	<b>Phenanthrene</b>	<b>1.0</b>	<b>1.8</b>
86-74-8	<b>Carbazole</b>	<b>1.0</b>	<b>6.9</b>
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	<b>1-Methylnaphthalene</b>	<b>1.0</b>	<b>6.9</b>

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	82.8%	2-Fluorobiphenyl	81.6%
d14-p-Terphenyl	88.8%	d4-1,2-Dichlorobenzene	72.4%
d5-Phenol	88.0%	2-Fluorophenol	82.7%
2,4,6-Tribromophenol	95.7%	d4-2-Chlorophenol	85.9%

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-110508	83.2%	81.2%	102%	81.2%	89.1%	84.0%	88.5%	85.3%	0	
LCS-110508	90.0%	86.4%	101%	88.0%*	96.3%	90.1%	94.9%	92.5%	1	
LCSD-110508	88.4%	85.2%	102%	72.8%	95.2%	89.6%	96.5%	91.2%	0	
TDP1-GW-081103	82.8%	81.6%	88.8%	72.4%	88.0%	82.7%	95.7%	85.9%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C  
Log Number Range: 08-29925 to 08-29925

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-110508  
LCS/LCSD

Lab Sample ID: LCS-110508  
LIMS ID: 08-29925  
Matrix: Water  
Data Release Authorized:   
Reported: 11/10/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: 11/03/08  
Date Received: 11/03/08

Date Extracted LCS/LCSD: 11/05/08

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 11/07/08 15:49

Final Extract Volume LCS: 0.50 mL

LCSD: 11/07/08 16:24

LCSD: 0.50 mL

Instrument/Analyst LCS: NT6/LJR

Dilution Factor LCS: 1.00

LCSD: NT6/LJR

LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	22.9	25.0	91.6%	23.7	25.0	94.8%	3.4%
Bis-(2-Chloroethyl) Ether	24.6	25.0	98.4%	24.8	25.0	99.2%	0.8%
2-Chlorophenol	24.5	25.0	98.0%	25.4	25.0	102%	3.6%
1,3-Dichlorobenzene	20.6	25.0	82.4%	18.3	25.0	73.2%	11.8%
1,4-Dichlorobenzene	20.7	25.0	82.8%	18.4	25.0	73.6%	11.8%
Benzyl Alcohol	43.2	50.0	86.4%	43.3	50.0	86.6%	0.2%
1,2-Dichlorobenzene	21.3	25.0	85.2%	19.2	25.0	76.8%	10.4%
2-Methylphenol	25.5	25.0	102%	26.0	25.0	104%	1.9%
2,2'-Oxybis(1-Chloropropane)	25.3	25.0	101%	26.2	25.0	105%	3.5%
4-Methylphenol	51.8	50.0	104%	53.5	50.0	107%	3.2%
N-Nitroso-Di-N-Propylamine	26.6	25.0	106%	27.2	25.0	109%	2.2%
Hexachloroethane	19.1	25.0	76.4%	16.2	25.0	64.8%	16.4%
Nitrobenzene	23.2	25.0	92.8%	24.4	25.0	97.6%	5.0%
Isophorone	27.1	25.0	108%	27.9	25.0	112%	2.9%
2-Nitrophenol	25.6	25.0	102%	26.9	25.0	108%	5.0%
2,4-Dimethylphenol	17.2	25.0	68.8%	19.6	25.0	78.4%	13.0%
Benzoic Acid	89.6	75.0	119%	89.0	75.0	119%	0.7%
bis(2-Chloroethoxy) Methane	25.7	25.0	103%	27.3	25.0	109%	6.0%
2,4-Dichlorophenol	25.7	25.0	103%	26.9	25.0	108%	4.6%
1,2,4-Trichlorobenzene	22.6	25.0	90.4%	20.3	25.0	81.2%	10.7%
Naphthalene	23.6	25.0	94.4%	23.6	25.0	94.4%	0.0%
4-Chloroaniline	67.0	60.0	112%	65.6	60.0	110%	2.1%
Hexachlorobutadiene	22.0	25.0	88.0%	18.5	25.0	74.0%	17.3%
4-Chloro-3-methylphenol	26.8	25.0	107%	28.2	25.0	113%	5.1%
2-Methylnaphthalene	22.6	25.0	90.4%	23.0	25.0	92.0%	1.8%
Hexachlorocyclopentadiene	44.9	75.0	59.9%	42.1	75.0	56.1%	6.4%
2,4,6-Trichlorophenol	24.6	25.0	98.4%	26.2	25.0	105%	6.3%
2,4,5-Trichlorophenol	24.9	25.0	99.6%	25.9	25.0	104%	3.9%
2-Chloronaphthalene	23.7	25.0	94.8%	24.2	25.0	96.8%	2.1%
2-Nitroaniline	24.5	25.0	98.0%	26.3	25.0	105%	7.1%
Dimethylphthalate	24.9	25.0	99.6%	26.5	25.0	106%	6.2%
Acenaphthylene	23.5	25.0	94.0%	24.6	25.0	98.4%	4.6%
3-Nitroaniline	77.3	64.0	121%	81.1	64.0	127%	4.8%
Acenaphthene	24.4	25.0	97.6%	25.3	25.0	101%	3.6%
2,4-Dinitrophenol	98.7	75.0	132%	99.9	75.0	133%	1.2%
4-Nitrophenol	24.6	25.0	98.4%	25.5	25.0	102%	3.6%
Dibenzofuran	23.5	25.0	94.0%	24.3	25.0	97.2%	3.3%
2,6-Dinitrotoluene	26.2	25.0	105%	28.2	25.0	113%	7.4%
2,4-Dinitrotoluene	27.1	25.0	108%	28.8	25.0	115%	6.1%
Diethylphthalate	25.0	25.0	100%	26.3	25.0	105%	5.1%
4-Chlorophenyl-phenylether	24.3	25.0	97.2%	25.5	25.0	102%	4.8%
Fluorene	25.2	25.0	101%	26.6	25.0	106%	5.4%
4-Nitroaniline	26.0	25.0	104%	28.0	25.0	112%	7.4%
4,6-Dinitro-2-Methylphenol	58.3	75.0	77.7%	59.2	75.0	78.9%	1.5%
N-Nitrosodiphenylamine	24.5	25.0	98.0%	25.4	25.0	102%	3.6%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-110508  
LCS/LCSD

Lab Sample ID: LCS-110508  
LIMS ID: 08-29925  
Matrix: Water  
Date Analyzed: 11/07/08 15:49

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	24.8	25.0	99.2%	26.2	25.0	105%	5.5%
Hexachlorobenzene	25.1	25.0	100%	26.1	25.0	104%	3.9%
Pentachlorophenol	24.5	25.0	98.0%	25.2	25.0	101%	2.8%
Phenanthrene	25.1	28.0	89.6%	26.5	28.0	94.6%	5.4%
Carbazole	26.8	25.0	107%	28.0	25.0	112%	4.4%
Anthracene	24.4	25.0	97.6%	25.4	25.0	102%	4.0%
Di-n-Butylphthalate	26.2	25.0	105%	27.4	25.0	110%	4.5%
Fluoranthene	26.0	25.0	104%	27.2	25.0	109%	4.5%
Pyrene	26.5	25.0	106%	27.9	25.0	112%	5.1%
Butylbenzylphthalate	27.6	25.0	110%	28.9	25.0	116%	4.6%
3,3'-Dichlorobenzidine	65.8	64.0	103%	65.8	64.0	103%	0.0%
Benzo(a)anthracene	25.8	25.0	103%	27.0	25.0	108%	4.5%
bis(2-Ethylhexyl)phthalate	28.8	25.0	115%	30.1	25.0	120%	4.4%
Chrysene	24.8	28.0	88.6%	26.1	28.0	93.2%	5.1%
Di-n-Octyl phthalate	25.0	25.0	100%	26.2	25.0	105%	4.7%
Benzo(b)fluoranthene	27.6	25.0	110%	27.0	25.0	108%	2.2%
Benzo(k)fluoranthene	25.8	28.0	92.1%	29.3	28.0	105%	12.7%
Benzo(a)pyrene	21.9	25.0	87.6%	22.7	25.0	90.8%	3.6%
Indeno(1,2,3-cd)pyrene	24.7	25.0	98.8%	25.7	25.0	103%	4.0%
Dibenz(a,h)anthracene	24.3	25.0	97.2%	25.6	25.0	102%	5.2%
Benzo(g,h,i)perylene	23.9	25.0	95.6%	25.0	25.0	100%	4.5%
1-Methylnaphthalene	26.4	25.0	106%	26.4	25.0	106%	0.0%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	90.0%	88.4%
2-Fluorobiphenyl	86.4%	85.2%
d14-p-Terphenyl	101%	102%
d4-1,2-Dichlorobenzene	88.0%	72.8%
d5-Phenol	96.3%	95.2%
2-Fluorophenol	90.1%	89.6%
2,4,6-Tribromophenol	94.9%	96.5%
d4-2-Chlorophenol	92.5%	91.2%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-110508  
METHOD BLANK

Lab Sample ID: MB-110508  
LIMS ID: 08-29925  
Matrix: Water  
Data Release Authorized:   
Reported: 11/10/08

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/05/08  
Date Analyzed: 11/07/08 15:15  
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-110508  
METHOD BLANK

Lab Sample ID: MB-110508  
LIMS ID: 08-29925  
Matrix: Water  
Date Analyzed: 11/07/08 15:15

QC Report No: NX93-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	83.2%	2-Fluorobiphenyl	81.2%
d14-p-Terphenyl	102%	d4-1,2-Dichlorobenzene	81.2%
d5-Phenol	89.1%	2-Fluorophenol	84.0%
2,4,6-Tribromophenol	88.5%	d4-2-Chlorophenol	85.3%



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

November 25, 2008

Tim Syverson  
Landau Associates, Inc.  
130 Second Ave  
Edmonds, WA 98020

**RE: Project: Seattle/Phase II, 025173.070**  
**ARI Job No.: NY07**

Dear Tim:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, the analytical results for the above referenced project. Analytical Resources, Inc. (ARI) accepted thirteen soil samples and three water samples on November 4, 2008. Three coolers were received with temperatures of 1.0, 2.6, and 3.4°C. Sample **TDP12-9-081104** was placed on hold pending further client instruction. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM PAHs, PCBs, NWTPH-HCID, NWTPH-Dx, and Total and Dissolved Metals, as requested. Please note that the SIM PAH analysis was cancelled for all soil samples.

**Volatiles Analyses:** Continuing Calibrations had compounds outside of the 20% control limit for the 11/05/08 volatiles analysis, but were accepted outliers under ARI SOPs. No further corrective action was taken.

**Semivolatiles Analyses:** The internal standard percent difference of Perylene-d12 was outside the control limit for sample **TDP11-9-081104**. The sample was re-analyzed at a dilution and all internal standard percent differences were within the control limit. Both sets of data have included in this report for your review. No further corrective action was required.

The surrogate percent recovery of d4-1,2-Dichlorobenzene was outside the control limits slightly high for **LCS-110508**. All other surrogate percent recoveries were within control limits. No further corrective action was required.

The LCS and LCSD percent recoveries of Benzoic Acid fell outside the control limits for **LCS-111108**. No further corrective action is required for this compound as it is a known poor performer.

Several LCS and LCSD percent recoveries were outside the control limits high for **LCS-111108**. No further corrective action was required.

Several LCSD percent recoveries were outside the control limits high for **LCS-110508**. All LCS percent recoveries were within control limits. No further corrective action was required.

The LCS and LCSD percent recoveries of 1-Methylnaphthalene were outside the control limits high for **LCS-110508**. All samples were undetected for this compound. No further corrective action was required.



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

*There were no anomalies associated with the SIM PAH analysis.*

*There were no anomalies associated with the PCBs analyses.*

**NWTPH-HCID Analyses:** Please note that all samples that were detected for Diesel or Motor Oil were re-analyzed by method NWTPH-Dx.

*There were no anomalies associated with the NWPH-Dx analysis.*

**Metal Analyses:** The duplicate relative percent difference of copper was outside the control limit for sample **TPD6-8-081104**. All other quality control parameters were met for copper. No further corrective action was required.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

NY02

- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_



3.4, 2.6, 1.0

Date 11/04/08  
 Page 1 of 1

# Chain-of-Custody Record

Project Name Boeing Thompson Project No. SZ5173070

Project Location/Event Seattle / Phase II

Sampler's Name Elizabeth Poole

Project Contact Kathryn Hawley

Send Results To K Hawley, I Esperson, A Holmerson

Turnaround Time  
 Standard  
 Accelerated  
 \_\_\_\_\_

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters							Observations/Comments	
					PH/Acid	Trace Metals + Copper	VOCs	Diss Metals	PCBs	SVOCs	PAH-SIM		
TDP6-8-081104	11/4/08	850	S	7	X	X	X						<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input checked="" type="checkbox"/> non-preserved <input checked="" type="checkbox"/> preserved w/methanol <input checked="" type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal water samples field filtered Other <input checked="" type="checkbox"/> _____ _____ _____ _____
TDP7-8-081104		745			X	X	X		X	X			
TDP8-8-081104		940			X	X	X		X	X			
TDP9-8-081104		1120			X	X	X						
TDP10-8-081104		1145			X	X	X						
TDP11-7-081104		1240		4			X						
TDP11-9-081104		1258		7	X	X	X		X	X	X		
TDP12-7-081104		1315		6	X	X	X						
TDP12-9-081104		1320		7			hold						
TDP13-7-081104		1345		5	X	X	X						
TDP14-4-081104		1415		7	X	X	X						
TDP15-4-081104		1240		7	X	X	X						
TDP8-GW-081104		945	W	16	X	X	X	X	X	X	X		
TDP7-GW-081104		845		16	X	X	X	X	X	X	X		
TDP11-GW-081104		1330		16	X	X	X	X	X	X	X		

Special Shipment/Handling or Storage Requirements \_\_\_\_\_ Method of Shipment \_\_\_\_\_

<b>Relinquished by</b> Signature <u>Elizabeth Poole</u> Printed Name <u>Elizabeth Poole</u> Company <u>LA</u> Date <u>11/4/08</u> Time <u>1550</u>	<b>Received by</b> Signature <u>Kimberly Rigg</u> Printed Name <u>Kimberly Rigg</u> Company <u>ARI</u> Date <u>11/4/08</u> Time <u>1550</u>	<b>Relinquished by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____	<b>Received by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____
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Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Boeing  
COC No: \_\_\_\_\_  
Assigned ARI Job No: NY07

Project Name: Boeing Thompson  
Delivered by: Hand  
Tracking No: \_\_\_\_\_

## Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? ..... YES  NO
- Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) ..... 3, 4, 26, 10c

Cooler Accepted by: KR Date: 11/4/08 Time: 19:50

**Complete custody forms and attach all shipping documents**

## Log-In Phase:

- Was a temperature blank included in the cooler? ..... YES  NO
- What kind of packing material was used? ..... BW
- Was sufficient ice used (if appropriate)? ..... YES  NO
- Were all bottles sealed in individual plastic bags? ..... YES  NO
- Did all bottle arrive in good condition (unbroken)? ..... YES  NO
- Were all bottle labels complete and legible? ..... YES  NO
- Did all bottle labels and tags agree with custody papers? ..... YES  NO
- Were all bottles used correct for the requested analyses? ..... YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) ..... YES  NO
- Were all VOC vials free of air bubbles? ..... NA YES  NO  NO
- Was sufficient amount of sample sent in each bottle? ..... YES  NO

Samples Logged by: AV Date: 11/5/08 Time: 9:50

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

Explain discrepancies or negative responses:

Sample TDPI0-7-081104 extra 4 samples logged at end of list

By: \_\_\_\_\_ Date: \_\_\_\_\_

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TPD6-8-081104

Page 1 of 1

SAMPLE

Lab Sample ID: NY07A

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30002

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized:

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 3.66 g-dry-wt

Date Analyzed: 11/11/08 13:08

Purge Volume: 5.0 mL

Moisture: 27.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.4	< 1.4	U
74-83-9	Bromomethane	1.4	< 1.4	U
75-01-4	Vinyl Chloride	1.4	< 1.4	U
75-00-3	Chloroethane	1.4	< 1.4	U
75-09-2	Methylene Chloride	2.7	< 2.7	U
<b>67-64-1</b>	<b>Acetone</b>	<b>6.8</b>	<b>59</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.4</b>	<b>9.8</b>	
75-35-4	1,1-Dichloroethene	1.4	< 1.4	U
75-34-3	1,1-Dichloroethane	1.4	< 1.4	U
156-60-5	trans-1,2-Dichloroethene	1.4	< 1.4	U
156-59-2	cis-1,2-Dichloroethene	1.4	< 1.4	U
67-66-3	Chloroform	1.4	< 1.4	U
107-06-2	1,2-Dichloroethane	1.4	< 1.4	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>6.8</b>	<b>9.8</b>	
71-55-6	1,1,1-Trichloroethane	1.4	< 1.4	U
56-23-5	Carbon Tetrachloride	1.4	< 1.4	U
108-05-4	Vinyl Acetate	6.8	< 6.8	U
75-27-4	Bromodichloromethane	1.4	< 1.4	U
78-87-5	1,2-Dichloropropane	1.4	< 1.4	U
10061-01-5	cis-1,3-Dichloropropene	1.4	< 1.4	U
79-01-6	Trichloroethene	1.4	< 1.4	U
124-48-1	Dibromochloromethane	1.4	< 1.4	U
79-00-5	1,1,2-Trichloroethane	1.4	< 1.4	U
71-43-2	Benzene	1.4	< 1.4	U
10061-02-6	trans-1,3-Dichloropropene	1.4	< 1.4	U
110-75-8	2-Chloroethylvinylether	6.8	< 6.8	U
75-25-2	Bromoform	1.4	< 1.4	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	6.8	< 6.8	U
591-78-6	2-Hexanone	6.8	< 6.8	U
127-18-4	Tetrachloroethene	1.4	< 1.4	U
79-34-5	1,1,2,2-Tetrachloroethane	1.4	< 1.4	U
108-88-3	Toluene	1.4	< 1.4	U
108-90-7	Chlorobenzene	1.4	< 1.4	U
100-41-4	Ethylbenzene	1.4	< 1.4	U
100-42-5	Styrene	1.4	< 1.4	U
75-69-4	Trichlorofluoromethane	1.4	< 1.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.7	< 2.7	U
1330-20-7	m,p-Xylene	1.4	< 1.4	U
95-47-6	o-Xylene	1.4	< 1.4	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	101%
Bromofluorobenzene	94.1%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP7-8-081104

Page 1 of 1

SAMPLE

Lab Sample ID: NY07B

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30003

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized:

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 6.14 g-dry-wt

Date Analyzed: 11/11/08 13:35

Purge Volume: 5.0 mL

Moisture: 22.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
75-09-2	Methylene Chloride	1.6	< 1.6	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.1</b>	<b>44</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.8</b>	<b>1.0</b>	
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
75-34-3	1,1-Dichloroethane	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>4.1</b>	<b>7.0</b>	
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	4.1	< 4.1	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
71-43-2	Benzene	0.8	< 0.8	U
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	4.1	< 4.1	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.1	< 4.1	U
591-78-6	2-Hexanone	4.1	< 4.1	U
127-18-4	Tetrachloroethene	0.8	< 0.8	U
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
108-88-3	Toluene	0.8	< 0.8	U
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	< 1.6	U
1330-20-7	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	109%
d8-Toluene	101%
Bromofluorobenzene	99.1%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP8-8-081104

Page 1 of 1

SAMPLE

Lab Sample ID: NY07C

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30004

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized:

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.38 g-dry-wt

Date Analyzed: 11/11/08 14:02

Purge Volume: 5.0 mL

Moisture: 20.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.3	< 2.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.7</b>	<b>94</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.1</b>	<b>4.4</b>	
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>1.1</b>	<b>1.5</b>	
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.7</b>	<b>12</b>	
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.7	< 5.7	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
<b>71-43-2</b>	<b>Benzene</b>	<b>1.1</b>	<b>4.3</b>	
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.7	< 5.7	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.7	< 5.7	U
591-78-6	2-Hexanone	5.7	< 5.7	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
<b>108-88-3</b>	<b>Toluene</b>	<b>1.1</b>	<b>2.0</b>	
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	2.3	< 2.3	U
1330-20-7	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	92.2%
d8-Toluene	93.6%
Bromofluorobenzene	68.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP9-8-081104

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**SAMPLE**

Lab Sample ID: NY07D

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30005

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized: *AB*

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.69 g-dry-wt

Date Analyzed: 11/11/08 14:28

Purge Volume: 5.0 mL

Moisture: 17.3%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.6	< 0.6	U
74-83-9	Bromomethane	0.6	< 0.6	U
75-01-4	Vinyl Chloride	0.6	< 0.6	U
75-00-3	Chloroethane	0.6	< 0.6	U
75-09-2	Methylene Chloride	1.3	< 1.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.2</b>	<b>50</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.6</b>	<b>2.3</b>	
75-35-4	1,1-Dichloroethene	0.6	< 0.6	U
75-34-3	1,1-Dichloroethane	0.6	< 0.6	U
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
67-66-3	Chloroform	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>3.2</b>	<b>9.9</b>	
71-55-6	1,1,1-Trichloroethane	0.6	< 0.6	U
56-23-5	Carbon Tetrachloride	0.6	< 0.6	U
108-05-4	Vinyl Acetate	3.2	< 3.2	U
75-27-4	Bromodichloromethane	0.6	< 0.6	U
78-87-5	1,2-Dichloropropane	0.6	< 0.6	U
10061-01-5	cis-1,3-Dichloropropene	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
124-48-1	Dibromochloromethane	0.6	< 0.6	U
79-00-5	1,1,2-Trichloroethane	0.6	< 0.6	U
71-43-2	Benzene	0.6	< 0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	< 0.6	U
110-75-8	2-Chloroethylvinylether	3.2	< 3.2	U
75-25-2	Bromoform	0.6	< 0.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.2	< 3.2	U
591-78-6	2-Hexanone	3.2	< 3.2	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	0.6	< 0.6	U
108-88-3	Toluene	0.6	< 0.6	U
108-90-7	Chlorobenzene	0.6	< 0.6	U
100-41-4	Ethylbenzene	0.6	< 0.6	U
100-42-5	Styrene	0.6	< 0.6	U
75-69-4	Trichlorofluoromethane	0.6	< 0.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	1.3	< 1.3	U
1330-20-7	m,p-Xylene	0.6	< 0.6	U
95-47-6	o-Xylene	0.6	< 0.6	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	109%
d8-Toluene	102%
Bromofluorobenzene	96.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP10-8-081104

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SAMPLE

Lab Sample ID: NY07E

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30006

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized: *[Signature]*

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.50 g-dry-wt

Date Analyzed: 11/11/08 14:55

Purge Volume: 5.0 mL

Moisture: 12.9%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.7	< 0.7	U
74-83-9	Bromomethane	0.7	< 0.7	U
75-01-4	Vinyl Chloride	0.7	< 0.7	U
75-00-3	Chloroethane	0.7	< 0.7	U
75-09-2	Methylene Chloride	1.3	< 1.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.3</b>	<b>44</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.7</b>	<b>5.8</b>	
75-35-4	1,1-Dichloroethene	0.7	< 0.7	U
75-34-3	1,1-Dichloroethane	0.7	< 0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
156-59-2	cis-1,2-Dichloroethene	0.7	< 0.7	U
67-66-3	Chloroform	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>3.3</b>	<b>7.4</b>	
71-55-6	1,1,1-Trichloroethane	0.7	< 0.7	U
56-23-5	Carbon Tetrachloride	0.7	< 0.7	U
108-05-4	Vinyl Acetate	3.3	< 3.3	U
75-27-4	Bromodichloromethane	0.7	< 0.7	U
78-87-5	1,2-Dichloropropane	0.7	< 0.7	U
10061-01-5	cis-1,3-Dichloropropene	0.7	< 0.7	U
79-01-6	Trichloroethene	0.7	< 0.7	U
124-48-1	Dibromochloromethane	0.7	< 0.7	U
79-00-5	1,1,2-Trichloroethane	0.7	< 0.7	U
71-43-2	Benzene	0.7	< 0.7	U
10061-02-6	trans-1,3-Dichloropropene	0.7	< 0.7	U
110-75-8	2-Chloroethylvinylether	3.3	< 3.3	U
75-25-2	Bromoform	0.7	< 0.7	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.3	< 3.3	U
591-78-6	2-Hexanone	3.3	< 3.3	U
127-18-4	Tetrachloroethene	0.7	< 0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	0.7	< 0.7	U
108-88-3	Toluene	0.7	< 0.7	U
108-90-7	Chlorobenzene	0.7	< 0.7	U
100-41-4	Ethylbenzene	0.7	< 0.7	U
100-42-5	Styrene	0.7	< 0.7	U
75-69-4	Trichlorofluoromethane	0.7	< 0.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	1.3	< 1.3	U
1330-20-7	m,p-Xylene	0.7	< 0.7	U
95-47-6	o-Xylene	0.7	< 0.7	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	105%
d8-Toluene	101%
Bromofluorobenzene	91.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP11-7-081104

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**SAMPLE**

Lab Sample ID: NY07F

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30007

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized:

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.63 g-dry-wt

Date Analyzed: 11/11/08 15:22

Purge Volume: 5.0 mL

Moisture: 24.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.9	< 0.9	U
74-83-9	Bromomethane	0.9	< 0.9	U
75-01-4	Vinyl Chloride	0.9	< 0.9	U
75-00-3	Chloroethane	0.9	< 0.9	U
75-09-2	Methylene Chloride	1.8	< 1.8	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.4</b>	<b>97</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.9</b>	<b>22</b>	
75-35-4	1,1-Dichloroethene	0.9	< 0.9	U
75-34-3	1,1-Dichloroethane	0.9	< 0.9	U
156-60-5	trans-1,2-Dichloroethene	0.9	< 0.9	U
156-59-2	cis-1,2-Dichloroethene	0.9	< 0.9	U
67-66-3	Chloroform	0.9	< 0.9	U
107-06-2	1,2-Dichloroethane	0.9	< 0.9	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>4.4</b>	<b>20</b>	
71-55-6	1,1,1-Trichloroethane	0.9	< 0.9	U
56-23-5	Carbon Tetrachloride	0.9	< 0.9	U
108-05-4	Vinyl Acetate	4.4	< 4.4	U
75-27-4	Bromodichloromethane	0.9	< 0.9	U
78-87-5	1,2-Dichloropropane	0.9	< 0.9	U
10061-01-5	cis-1,3-Dichloropropene	0.9	< 0.9	U
79-01-6	Trichloroethene	0.9	< 0.9	U
124-48-1	Dibromochloromethane	0.9	< 0.9	U
79-00-5	1,1,2-Trichloroethane	0.9	< 0.9	U
71-43-2	Benzene	0.9	< 0.9	U
10061-02-6	trans-1,3-Dichloropropene	0.9	< 0.9	U
110-75-8	2-Chloroethylvinylether	4.4	< 4.4	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.4	< 4.4	U
591-78-6	2-Hexanone	4.4	< 4.4	U
127-18-4	Tetrachloroethene	0.9	< 0.9	U
79-34-5	1,1,2,2-Tetrachloroethane	0.9	< 0.9	U
108-88-3	Toluene	0.9	< 0.9	U
108-90-7	Chlorobenzene	0.9	< 0.9	U
100-41-4	Ethylbenzene	0.9	< 0.9	U
100-42-5	Styrene	0.9	< 0.9	U
75-69-4	Trichlorofluoromethane	0.9	< 0.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	< 1.8	U
1330-20-7	m,p-Xylene	0.9	< 0.9	U
95-47-6	o-Xylene	0.9	< 0.9	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.1%
d8-Toluene	96.5%
Bromofluorobenzene	83.7%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP11-9-081104

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**SAMPLE**

Lab Sample ID: NY07G

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30008

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized: *[Signature]*

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.85 g-dry-wt

Date Analyzed: 11/11/08 15:53

Purge Volume: 5.0 mL

Moisture: 9.3%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.6	< 0.6	U
74-83-9	Bromomethane	0.6	< 0.6	U
75-01-4	Vinyl Chloride	0.6	< 0.6	U
75-00-3	Chloroethane	0.6	< 0.6	U
75-09-2	Methylene Chloride	1.3	< 1.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.2</b>	<b>23</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.6</b>	<b>2.5</b>	
75-35-4	1,1-Dichloroethene	0.6	< 0.6	U
75-34-3	1,1-Dichloroethane	0.6	< 0.6	U
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
67-66-3	Chloroform	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>3.2</b>	<b>4.5</b>	
71-55-6	1,1,1-Trichloroethane	0.6	< 0.6	U
56-23-5	Carbon Tetrachloride	0.6	< 0.6	U
108-05-4	Vinyl Acetate	3.2	< 3.2	U
75-27-4	Bromodichloromethane	0.6	< 0.6	U
78-87-5	1,2-Dichloropropane	0.6	< 0.6	U
10061-01-5	cis-1,3-Dichloropropene	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
124-48-1	Dibromochloromethane	0.6	< 0.6	U
79-00-5	1,1,2-Trichloroethane	0.6	< 0.6	U
71-43-2	Benzene	0.6	< 0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	< 0.6	U
110-75-8	2-Chloroethylvinylether	3.2	< 3.2	U
75-25-2	Bromoform	0.6	< 0.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.2	< 3.2	U
591-78-6	2-Hexanone	3.2	< 3.2	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	0.6	< 0.6	U
108-88-3	Toluene	0.6	< 0.6	U
108-90-7	Chlorobenzene	0.6	< 0.6	U
100-41-4	Ethylbenzene	0.6	< 0.6	U
100-42-5	Styrene	0.6	< 0.6	U
75-69-4	Trichlorofluoromethane	0.6	< 0.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.3	< 1.3	U
1330-20-7	m,p-Xylene	0.6	< 0.6	U
95-47-6	o-Xylene	0.6	< 0.6	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	101%
Bromofluorobenzene	97.7%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP12-7-081104

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**SAMPLE**

Lab Sample ID: NY07H

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30009

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized:

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.04 g-dry-wt

Date Analyzed: 11/11/08 16:16

Purge Volume: 5.0 mL

Moisture: 26.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.2	< 1.2	U
74-83-9	Bromomethane	1.2	< 1.2	U
75-01-4	Vinyl Chloride	1.2	< 1.2	U
75-00-3	Chloroethane	1.2	< 1.2	U
75-09-2	Methylene Chloride	2.5	< 2.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>6.2</b>	<b>86</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.2</b>	<b>8.8</b>	
75-35-4	1,1-Dichloroethene	1.2	< 1.2	U
75-34-3	1,1-Dichloroethane	1.2	< 1.2	U
156-60-5	trans-1,2-Dichloroethene	1.2	< 1.2	U
156-59-2	cis-1,2-Dichloroethene	1.2	< 1.2	U
67-66-3	Chloroform	1.2	< 1.2	U
107-06-2	1,2-Dichloroethane	1.2	< 1.2	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>6.2</b>	<b>14</b>	
71-55-6	1,1,1-Trichloroethane	1.2	< 1.2	U
56-23-5	Carbon Tetrachloride	1.2	< 1.2	U
108-05-4	Vinyl Acetate	6.2	< 6.2	U
75-27-4	Bromodichloromethane	1.2	< 1.2	U
78-87-5	1,2-Dichloropropane	1.2	< 1.2	U
10061-01-5	cis-1,3-Dichloropropene	1.2	< 1.2	U
79-01-6	Trichloroethene	1.2	< 1.2	U
124-48-1	Dibromochloromethane	1.2	< 1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	< 1.2	U
71-43-2	Benzene	1.2	< 1.2	U
10061-02-6	trans-1,3-Dichloropropene	1.2	< 1.2	U
110-75-8	2-Chloroethylvinylether	6.2	< 6.2	U
75-25-2	Bromoform	1.2	< 1.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	6.2	< 6.2	U
591-78-6	2-Hexanone	6.2	< 6.2	U
127-18-4	Tetrachloroethene	1.2	< 1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	< 1.2	U
108-88-3	Toluene	1.2	< 1.2	U
108-90-7	Chlorobenzene	1.2	< 1.2	U
100-41-4	Ethylbenzene	1.2	< 1.2	U
100-42-5	Styrene	1.2	< 1.2	U
75-69-4	Trichlorofluoromethane	1.2	< 1.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	< 2.5	U
1330-20-7	m,p-Xylene	1.2	< 1.2	U
95-47-6	o-Xylene	1.2	< 1.2	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	95.2%
Bromofluorobenzene	82.6%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP13-7-081104

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SAMPLE

Lab Sample ID: NY07J

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30011

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized:

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.54 g-dry-wt

Date Analyzed: 11/11/08 16:42

Purge Volume: 5.0 mL

Moisture: 21.5%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.2	< 2.2	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.5</b>	<b>51</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.1</b>	<b>8.5</b>	
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.5</b>	<b>7.9</b>	
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.5	< 5.5	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
71-43-2	Benzene	1.1	< 1.1	U
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.5	< 5.5	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.5	< 5.5	U
591-78-6	2-Hexanone	5.5	< 5.5	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
108-88-3	Toluene	1.1	< 1.1	U
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	2.2	< 2.2	U
1330-20-7	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	103%
d8-Toluene	99.0%
Bromofluorobenzene	84.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP14-4-081104

Page 1 of 1

**SAMPLE**

Lab Sample ID: NY07K

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30012

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized:

Date Sampled: 11/04/08

Reported: 11/14/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.57 g-dry-wt

Date Analyzed: 11/11/08 17:09

Purge Volume: 5.0 mL

Moisture: 34.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.2	< 2.2	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.5</b>	<b>25</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.1</b>	<b>1.3</b>	
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
78-93-3	2-Butanone	5.5	< 5.5	U
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.5	< 5.5	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
71-43-2	Benzene	1.1	< 1.1	U
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.5	< 5.5	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.5	< 5.5	U
591-78-6	2-Hexanone	5.5	< 5.5	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
108-88-3	Toluene	1.1	< 1.1	U
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2	< 2.2	U
1330-20-7	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	100%
Bromofluorobenzene	95.6%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP15-4-081104  
SAMPLE

Lab Sample ID: NY07L

LIMS ID: 08-30013

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/14/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB

Date Analyzed: 11/11/08 17:36

Sample Amount: 6.21 g-dry-wt

Purge Volume: 5.0 mL

Moisture: 22.9%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
75-09-2	Methylene Chloride	1.6	< 1.6	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.0</b>	<b>31</b>	
75-15-0	Carbon Disulfide	0.8	< 0.8	U
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
75-34-3	1,1-Dichloroethane	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
78-93-3	2-Butanone	4.0	< 4.0	U
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	4.0	< 4.0	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
<b>71-43-2</b>	<b>Benzene</b>	<b>0.8</b>	<b>2.3</b>	
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	4.0	< 4.0	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.0	< 4.0	U
591-78-6	2-Hexanone	4.0	< 4.0	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>0.8</b>	<b>1.5</b>	
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
108-88-3	Toluene	0.8	< 0.8	U
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	< 1.6	U
1330-20-7	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	105%
d8-Toluene	102%
Bromofluorobenzene	95.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP10-7-081104  
SAMPLE

Lab Sample ID: NY07P  
LIMS ID: 08-30017  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/14/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 11/11/08 18:03

Sample Amount: 4.06 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 37.8%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.2	< 1.2	U
74-83-9	Bromomethane	1.2	< 1.2	U
75-01-4	Vinyl Chloride	1.2	< 1.2	U
75-00-3	Chloroethane	1.2	< 1.2	U
75-09-2	Methylene Chloride	2.5	< 2.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>6.2</b>	<b>120</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.2</b>	<b>26</b>	
75-35-4	1,1-Dichloroethene	1.2	< 1.2	U
75-34-3	1,1-Dichloroethane	1.2	< 1.2	U
156-60-5	trans-1,2-Dichloroethene	1.2	< 1.2	U
156-59-2	cis-1,2-Dichloroethene	1.2	< 1.2	U
67-66-3	Chloroform	1.2	< 1.2	U
107-06-2	1,2-Dichloroethane	1.2	< 1.2	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>6.2</b>	<b>25</b>	
71-55-6	1,1,1-Trichloroethane	1.2	< 1.2	U
56-23-5	Carbon Tetrachloride	1.2	< 1.2	U
108-05-4	Vinyl Acetate	6.2	< 6.2	U
75-27-4	Bromodichloromethane	1.2	< 1.2	U
78-87-5	1,2-Dichloropropane	1.2	< 1.2	U
10061-01-5	cis-1,3-Dichloropropene	1.2	< 1.2	U
79-01-6	Trichloroethene	1.2	< 1.2	U
124-48-1	Dibromochloromethane	1.2	< 1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	< 1.2	U
71-43-2	Benzene	1.2	< 1.2	U
10061-02-6	trans-1,3-Dichloropropene	1.2	< 1.2	U
110-75-8	2-Chloroethylvinylether	6.2	< 6.2	U
75-25-2	Bromoform	1.2	< 1.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	6.2	< 6.2	U
591-78-6	2-Hexanone	6.2	< 6.2	U
127-18-4	Tetrachloroethene	1.2	< 1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	< 1.2	U
108-88-3	Toluene	1.2	< 1.2	U
108-90-7	Chlorobenzene	1.2	< 1.2	U
100-41-4	Ethylbenzene	1.2	< 1.2	U
100-42-5	Styrene	1.2	< 1.2	U
75-69-4	Trichlorofluoromethane	1.2	< 1.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	< 2.5	U
1330-20-7	m,p-Xylene	1.2	< 1.2	U
95-47-6	o-Xylene	1.2	< 1.2	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	103%
d8-Toluene	96.4%
Bromofluorobenzene	87.5%

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-111108	Method Blank	Low	101%	100%	96.7%	NA	0
LCS-111108	Lab Control	Low	96.1%	102%	101%	NA	0
LCSD-111108	Lab Control Dup	Low	99.2%	100%	100%	NA	0
NY07A	TPD6-8-081104	Low	108%	101%	94.1%	NA	0
NY07B	TDP7-8-081104	Low	109%	101%	99.1%	NA	0
NY07C	TDP8-8-081104	Low	92.2%	93.6%	68.8%	NA	0
NY07D	TDP9-8-081104	Low	109%	102%	96.0%	NA	0
NY07E	TDP10-8-081104	Low	105%	101%	91.8%	NA	0
NY07F	TDP11-7-081104	Low	98.1%	96.5%	83.7%	NA	0
NY07G	TDP11-9-081104	Low	108%	101%	97.7%	NA	0
NY07H	TDP12-7-081104	Low	100%	95.2%	82.6%	NA	0
NY07J	TDP13-7-081104	Low	103%	99.0%	84.0%	NA	0
NY07K	TDP14-4-081104	Low	108%	100%	95.6%	NA	0
NY07L	TDP15-4-081104	Low	105%	102%	95.9%	NA	0
NY07P	TDP10-7-081104	Low	103%	96.4%	87.5%	NA	0

**LCS/MB LIMITS**

**QC LIMITS**

	Low	Med	Low	Med
<b>SW8260B</b>				
(DCE) = d4-1,2-Dichloroethane	75-120	76-120	72-134	69-120
(TOL) = d8-Toluene	80-122	80-120	78-124	80-120
(BFB) = Bromofluorobenzene	79-120	80-120	66-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	79-120	80-120

Log Number Range: 08-30002 to 08-30017

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111108

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-111108

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30002

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Data Release Authorized: *AS*

Date Sampled: NA

Reported: 11/14/08

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCSID: FINN5/PAB

LCSID: 5.00 g-dry-wt

Date Analyzed LCS: 11/11/08 10:47

Purge Volume LCS: 5.0 mL

LCSID: 11/11/08 12:39

LCSID: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSID	Spike Added-LCSID	LCSID Recovery	RPD
Chloromethane	49.2	50.0	98.4%	45.9	50.0	91.8%	6.9%
Bromomethane	51.6	50.0	103%	49.2	50.0	98.4%	4.8%
Vinyl Chloride	53.2	50.0	106%	50.6	50.0	101%	5.0%
Chloroethane	47.8	50.0	95.6%	45.2	50.0	90.4%	5.6%
Methylene Chloride	48.7	50.0	97.4%	46.8	50.0	93.6%	4.0%
Acetone	198	250	79.2%	186	250	74.4%	6.2%
Carbon Disulfide	55.4	50.0	111%	51.5	50.0	103%	7.3%
1,1-Dichloroethane	53.6	50.0	107%	50.8	50.0	102%	5.4%
1,1-Dichloroethane	52.7	50.0	105%	49.9	50.0	99.8%	5.5%
trans-1,2-Dichloroethane	52.4	50.0	105%	50.2	50.0	100%	4.3%
cis-1,2-Dichloroethane	54.3	50.0	109%	49.7	50.0	99.4%	8.8%
Chloroform	53.2	50.0	106%	49.5	50.0	99.0%	7.2%
1,2-Dichloroethane	48.7	50.0	97.4%	46.6	50.0	93.2%	4.4%
2-Butanone	216	250	86.4%	210	250	84.0%	2.8%
1,1,1-Trichloroethane	50.9	50.0	102%	48.1	50.0	96.2%	5.7%
Carbon Tetrachloride	51.5	50.0	103%	47.8	50.0	95.6%	7.5%
Vinyl Acetate	46.6	50.0	93.2%	45.9	50.0	91.8%	1.5%
Bromodichloromethane	50.9	50.0	102%	48.0	50.0	96.0%	5.9%
1,2-Dichloropropane	50.4	50.0	101%	46.9	50.0	93.8%	7.2%
cis-1,3-Dichloropropene	50.6	50.0	101%	47.5	50.0	95.0%	6.3%
Trichloroethene	52.7	50.0	105%	50.0	50.0	100%	5.3%
Dibromochloromethane	51.7	50.0	103%	48.1	50.0	96.2%	7.2%
1,1,2-Trichloroethane	49.0	50.0	98.0%	47.2	50.0	94.4%	3.7%
Benzene	56.5	50.0	113%	53.4	50.0	107%	5.6%
trans-1,3-Dichloropropene	49.2	50.0	98.4%	46.6	50.0	93.2%	5.4%
2-Chloroethylvinylether	48.2	50.0	96.4%	45.6	50.0	91.2%	5.5%
Bromoform	46.7	50.0	93.4%	43.8	50.0	87.6%	6.4%
4-Methyl-2-Pentanone (MIBK)	212	250	84.8%	212	250	84.8%	0.0%
2-Hexanone	196	250	78.4%	187	250	74.8%	4.7%
Tetrachloroethene	55.2	50.0	110%	50.1	50.0	100%	9.7%
1,1,2,2-Tetrachloroethane	45.9	50.0	91.8%	43.5	50.0	87.0%	5.4%
Toluene	52.5	50.0	105%	50.1	50.0	100%	4.7%
Chlorobenzene	54.8	50.0	110%	50.5	50.0	101%	8.2%
Ethylbenzene	59.5	50.0	119%	55.2	50.0	110%	7.5%
Styrene	56.0	50.0	112%	52.0	50.0	104%	7.4%
Trichlorofluoromethane	49.8	50.0	99.6%	49.4	50.0	98.8%	0.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	55.4	50.0	111%	51.7	50.0	103%	6.9%
m,p-Xylene	115	100	115%	102	100	102%	12.0%
o-Xylene	53.4	50.0	107%	49.4	50.0	98.8%	7.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111108

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111108

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30002

Project: SEATTLE/PHASEII

Matrix: Soil

025173.070

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
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Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	96.1%	99.2%
d8-Toluene	102%	100%
Bromofluorobenzene	101%	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: MB-111108  
METHOD BLANK

Lab Sample ID: MB-111108  
LIMS ID: 08-30002  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/14/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 11/11/08 11:51

Sample Amount: 5.00 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	100%
Bromofluorobenzene	96.7%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP8-GW-081104  
SAMPLE

Lab Sample ID: NY07M  
LIMS ID: 08-30014  
Matrix: Water  
Data Release Authorized: *MW*  
Reported: 11/07/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Instrument/Analyst: FINN3/JZ  
Date Analyzed: 11/05/08 18:45

Sample Amount: 20.0 mL  
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
<b>75-01-4</b>	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>0.7</b>	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>0.2</b>	<b>0.4</b>	
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	99.0%
d8-Toluene	96.5%
Bromofluorobenzene	94.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP7-GW-081104

Page 1 of 1

SAMPLE

Lab Sample ID: NY07N

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30015

Project: SEATTLE/PHASEII

Matrix: Water

025173.070

Data Release Authorized: *MW*

Date Sampled: 11/04/08

Reported: 11/07/08

Date Received: 11/04/08

Instrument/Analyst: FINN3/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/05/08 19:13

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
<b>75-01-4</b>	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>0.2</b>	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.5%
d8-Toluene	96.2%
Bromofluorobenzene	97.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP11-GW-081104

Page 1 of 1

**SAMPLE**

Lab Sample ID: NY070

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30016

Project: SEATTLE/PHASEII

Matrix: Water

025173.070

Data Release Authorized: *mm*

Date Sampled: 11/04/08

Reported: 11/07/08

Date Received: 11/04/08

Instrument/Analyst: FINN3/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/05/08 19:39

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	105%
d8-Toluene	95.0%
Bromofluorobenzene	97.5%

**VOA SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
NY07M	TDP8-GW-081104	20	99.0%	96.5%	94.8%	NA	0
NY07N	TDP7-GW-081104	20	98.5%	96.2%	97.5%	NA	0
MB-110508	Method Blank	20	89.2%	94.8%	99.2%	NA	0
LCS-110508	Lab Control	20	86.2%	95.2%	102%	NA	0
LCSD-110508	Lab Control Dup	20	86.5%	97.5%	100%	NA	0
NY07O	TDP11-GW-081104	20	105%	95.0%	97.5%	NA	0

**LCS/MB LIMITS**

**QC LIMITS**

**SW8260B**

(DCE) = d4-1,2-Dichloroethane  
(TOL) = d8-Toluene  
(BFB) = Bromofluorobenzene  
(DCB) = d4-1,2-Dichlorobenzene

70-131  
80-120  
74-121  
80-120

64-146  
78-125  
71-120  
80-121

Prep Method: SW5030B  
Log Number Range: 08-30014 to 08-30016

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-110508

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110508

QC Report No: NY07-The Boeing Company

LIMS ID: 08-30016

Project: SEATTLE/PHASEII

Matrix: Water

025173.070

Data Release Authorized: *MMW*

Date Sampled: NA

Reported: 11/07/08

Date Received: NA

Instrument/Analyst LCS: FINN3/JZ

Sample Amount LCS: 20.0 mL

LCSD: FINN3/JZ

LCSD: 20.0 mL

Date Analyzed LCS: 11/05/08 14:02

Purge Volume LCS: 20.0 mL

LCSD: 11/05/08 14:36

LCSD: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	3.3	4.0	82.5%	3.1	4.0	77.5%	6.2%
Bromomethane	3.6	4.0	90.0%	3.5	4.0	87.5%	2.8%
Vinyl Chloride	3.4	4.0	85.0%	3.4	4.0	85.0%	0.0%
Chloroethane	3.5	4.0	87.5%	3.4	4.0	85.0%	2.9%
Methylene Chloride	3.6	4.0	90.0%	3.4	4.0	85.0%	5.7%
Acetone	19.3	20.0	96.5%	22.3	20.0	112%	14.4%
Carbon Disulfide	3.2	4.0	80.0%	3.4	4.0	85.0%	6.1%
1,1-Dichloroethene	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%
1,1-Dichloroethane	3.7	4.0	92.5%	3.7	4.0	92.5%	0.0%
trans-1,2-Dichloroethene	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
cis-1,2-Dichloroethene	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
Chloroform	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%
1,2-Dichloroethane	4.2	4.0	105%	3.8	4.0	95.0%	10.0%
2-Butanone	21.5	20.0	108%	21.8	20.0	109%	1.4%
1,1,1-Trichloroethane	3.9	4.0	97.5%	3.9	4.0	97.5%	0.0%
Carbon Tetrachloride	4.1	4.0	102%	4.2	4.0	105%	2.4%
Vinyl Acetate	3.0	4.0	75.0%	3.3	4.0	82.5%	9.5%
Bromodichloromethane	4.0	4.0	100%	4.0	4.0	100%	0.0%
1,2-Dichloropropane	4.1	4.0	102%	4.1	4.0	102%	0.0%
cis-1,3-Dichloropropene	4.1	4.0	102%	3.9	4.0	97.5%	5.0%
Trichloroethene	4.1	4.0	102%	4.1	4.0	102%	0.0%
Dibromochloromethane	4.6	4.0	115%	4.1	4.0	102%	11.5%
1,1,2-Trichloroethane	4.2	4.0	105%	3.7	4.0	92.5%	12.7%
Benzene	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
trans-1,3-Dichloropropene	3.8	4.0	95.0%	3.7	4.0	92.5%	2.7%
2-Chloroethylvinylether	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
Bromoform	4.6	4.0	115%	4.4	4.0	110%	4.4%
4-Methyl-2-Pentanone (MIBK)	20.7	20.0	104%	19.9	20.0	99.5%	3.9%
2-Hexanone	22.4	20.0	112%	22.6	20.0	113%	0.9%
Tetrachloroethene	4.6	4.0	115%	4.7	4.0	118%	2.2%
1,1,2,2-Tetrachloroethane	4.1	4.0	102%	4.0	4.0	100%	2.5%
Toluene	4.1	4.0	102%	4.0	4.0	100%	2.5%
Chlorobenzene	4.5	4.0	112%	4.2	4.0	105%	6.9%
Ethylbenzene	4.3	4.0	108%	4.2	4.0	105%	2.4%
Styrene	4.5	4.0	112%	4.3	4.0	108%	4.5%
Trichlorofluoromethane	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%
1,1,2-Trichloro-1,2,2-trifluoroethane	3.6	4.0	90.0%	3.9	4.0	97.5%	8.0%
m,p-Xylene	8.8	8.0	110%	8.5	8.0	106%	3.5%
o-Xylene	4.5	4.0	112%	4.4	4.0	110%	2.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

LCS LCSD

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: LCS-110508  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-110508  
LIMS ID: 08-30016  
Matrix: Water

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

Analyte	LCS	Spike		LCS	LCS	Spike		LCS	RPD
		Added-LCS	Recovery			Added-LCSD	Recovery		
d4-1,2-Dichloroethane			86.2%	86.5%					
d8-Toluene			95.2%	97.5%					
Bromofluorobenzene			102%	100%					

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: MB-110508  
METHOD BLANK

Lab Sample ID: MB-110508  
LIMS ID: 08-30016  
Matrix: Water  
Data Release Authorized: *MW*  
Reported: 11/07/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: FINN3/JZ  
Date Analyzed: 11/05/08 14:58

Sample Amount: 20.0 mL  
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	89.2%
d8-Toluene	94.8%
Bromofluorobenzene	99.2%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP7-8-081104  
SAMPLE

Lab Sample ID: NY07B  
LIMS ID: 08-30003  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 20:08  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 7.98 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 22.4%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	63	< 63 U
111-44-4	Bis-(2-Chloroethyl) Ether	63	< 63 U
95-57-8	2-Chlorophenol	63	< 63 U
541-73-1	1,3-Dichlorobenzene	63	< 63 U
106-46-7	1,4-Dichlorobenzene	63	< 63 U
100-51-6	Benzyl Alcohol	63	< 63 U
95-50-1	1,2-Dichlorobenzene	63	< 63 U
95-48-7	2-Methylphenol	63	< 63 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	63	< 63 U
106-44-5	4-Methylphenol	63	< 63 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	63	< 63 U
98-95-3	Nitrobenzene	63	< 63 U
78-59-1	Isophorone	63	< 63 U
88-75-5	2-Nitrophenol	63	< 63 U
105-67-9	2,4-Dimethylphenol	63	< 63 U
65-85-0	Benzoic Acid	630	< 630 U
111-91-1	bis(2-Chloroethoxy) Methane	63	< 63 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	63	< 63 U
91-20-3	Naphthalene	63	< 63 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	63	< 63 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	63	< 63 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	63	< 63 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	63	< 63 U
208-96-8	Acenaphthylene	63	< 63 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	63	< 63 U
51-28-5	2,4-Dinitrophenol	630	< 630 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	63	< 63 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP7-8-081104  
SAMPLE

Lab Sample ID: NY07B  
LIMS ID: 08-30003  
Matrix: Soil  
Date Analyzed: 11/18/08 20:08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	63	< 63 U
7005-72-3	4-Chlorophenyl-phenylether	63	< 63 U
86-73-7	Fluorene	63	< 63 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	630	< 630 U
86-30-6	N-Nitrosodiphenylamine	63	< 63 U
101-55-3	4-Bromophenyl-phenylether	63	< 63 U
118-74-1	Hexachlorobenzene	63	< 63 U
87-86-5	Pentachlorophenol	310	< 310 U
85-01-8	Phenanthrene	63	< 63 U
86-74-8	Carbazole	63	< 63 U
120-12-7	Anthracene	63	< 63 U
84-74-2	Di-n-Butylphthalate	63	< 63 U
206-44-0	Fluoranthene	63	< 63 U
129-00-0	Pyrene	63	< 63 U
85-68-7	Butylbenzylphthalate	63	< 63 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo (a) anthracene	63	< 63 U
117-81-7	bis (2-Ethylhexyl) phthalate	63	< 63 U
218-01-9	Chrysene	63	< 63 U
117-84-0	Di-n-Octyl phthalate	63	< 63 U
205-99-2	Benzo (b) fluoranthene	63	< 63 U
207-08-9	Benzo (k) fluoranthene	63	< 63 U
50-32-8	Benzo (a) pyrene	63	< 63 U
193-39-5	Indeno (1,2,3-cd) pyrene	63	< 63 U
53-70-3	Dibenz (a,h) anthracene	63	< 63 U
191-24-2	Benzo (g,h,i) perylene	63	< 63 U
90-12-0	1-Methylnaphthalene	63	< 63 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	81.6%	2-Fluorobiphenyl	85.2%
d14-p-Terphenyl	90.8%	d4-1,2-Dichlorobenzene	86.4%
d5-Phenol	82.7%	2-Fluorophenol	79.5%
2,4,6-Tribromophenol	101%	d4-2-Chlorophenol	83.2%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP8-8-081104  
SAMPLE

Lab Sample ID: NY07C  
LIMS ID: 08-30004  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 20:43  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.23 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 20.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	61	< 61 U
111-44-4	Bis-(2-Chloroethyl) Ether	61	< 61 U
95-57-8	2-Chlorophenol	61	< 61 U
541-73-1	1,3-Dichlorobenzene	61	< 61 U
106-46-7	1,4-Dichlorobenzene	61	< 61 U
100-51-6	Benzyl Alcohol	61	< 61 U
95-50-1	1,2-Dichlorobenzene	61	< 61 U
95-48-7	2-Methylphenol	61	< 61 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	61	< 61 U
<b>106-44-5</b>	<b>4-Methylphenol</b>	<b>61</b>	<b>170</b>
621-64-7	N-Nitroso-Di-N-Propylamine	300	< 300 U
67-72-1	Hexachloroethane	61	< 61 U
98-95-3	Nitrobenzene	61	< 61 U
78-59-1	Isophorone	61	< 61 U
88-75-5	2-Nitrophenol	61	< 61 U
105-67-9	2,4-Dimethylphenol	61	< 61 U
65-85-0	Benzoic Acid	610	< 610 U
111-91-1	bis(2-Chloroethoxy) Methane	61	< 61 U
120-83-2	2,4-Dichlorophenol	300	< 300 U
120-82-1	1,2,4-Trichlorobenzene	61	< 61 U
<b>91-20-3</b>	<b>Naphthalene</b>	<b>61</b>	<b>260</b>
106-47-8	4-Chloroaniline	300	< 300 U
87-68-3	Hexachlorobutadiene	61	< 61 U
59-50-7	4-Chloro-3-methylphenol	300	< 300 U
<b>91-57-6</b>	<b>2-Methylnaphthalene</b>	<b>61</b>	<b>64</b>
77-47-4	Hexachlorocyclopentadiene	300	< 300 U
88-06-2	2,4,6-Trichlorophenol	300	< 300 U
95-95-4	2,4,5-Trichlorophenol	300	< 300 U
91-58-7	2-Chloronaphthalene	61	< 61 U
88-74-4	2-Nitroaniline	300	< 300 U
131-11-3	Dimethylphthalate	61	< 61 U
<b>208-96-8</b>	<b>Acenaphthylene</b>	<b>61</b>	<b>71</b>
99-09-2	3-Nitroaniline	300	< 300 U
83-32-9	Acenaphthene	61	< 61 U
51-28-5	2,4-Dinitrophenol	610	< 610 U
100-02-7	4-Nitrophenol	300	< 300 U
132-64-9	Dibenzofuran	61	< 61 U
606-20-2	2,6-Dinitrotoluene	300	< 300 U
121-14-2	2,4-Dinitrotoluene	300	< 300 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP8-8-081104  
SAMPLE

Lab Sample ID: NY07C  
LIMS ID: 08-30004  
Matrix: Soil  
Date Analyzed: 11/18/08 20:43

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	61	< 61 U
7005-72-3	4-Chlorophenyl-phenylether	61	< 61 U
86-73-7	Fluorene	61	< 61 U
100-01-6	4-Nitroaniline	300	< 300 U
534-52-1	4,6-Dinitro-2-Methylphenol	610	< 610 U
86-30-6	N-Nitrosodiphenylamine	61	< 61 U
101-55-3	4-Bromophenyl-phenylether	61	< 61 U
118-74-1	Hexachlorobenzene	61	< 61 U
87-86-5	Pentachlorophenol	300	< 300 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>61</b>	<b>160</b>
86-74-8	Carbazole	61	< 61 U
120-12-7	Anthracene	61	< 61 U
84-74-2	Di-n-Butylphthalate	61	< 61 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>61</b>	<b>100</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>61</b>	<b>110</b>
85-68-7	Butylbenzylphthalate	61	< 61 U
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	Benzo (a) anthracene	61	< 61 U
117-81-7	bis (2-Ethylhexyl) phthalate	61	< 61 U
218-01-9	Chrysene	61	< 61 U
117-84-0	Di-n-Octyl phthalate	61	< 61 U
205-99-2	Benzo (b) fluoranthene	61	< 61 U
207-08-9	Benzo (k) fluoranthene	61	< 61 U
50-32-8	Benzo (a) pyrene	61	< 61 U
193-39-5	Indeno (1,2,3-cd) pyrene	61	< 61 U
53-70-3	Dibenz (a,h) anthracene	61	< 61 U
191-24-2	Benzo (g,h,i) perylene	61	< 61 U
90-12-0	1-Methylnaphthalene	61	< 61 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	82.8%	2-Fluorobiphenyl	87.2%
d14-p-Terphenyl	82.8%	d4-1,2-Dichlorobenzene	85.2%
d5-Phenol	80.0%	2-Fluorophenol	76.5%
2,4,6-Tribromophenol	102%	d4-2-Chlorophenol	82.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP11-9-081104  
SAMPLE

Lab Sample ID: NY07G  
LIMS ID: 08-30008  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted: 11/10/08  
Date Analyzed: 11/19/08 21:37  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.33 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 9.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	60	< 60 U
111-44-4	Bis-(2-Chloroethyl) Ether	60	< 60 U
95-57-8	2-Chlorophenol	60	< 60 U
541-73-1	1,3-Dichlorobenzene	60	< 60 U
106-46-7	1,4-Dichlorobenzene	60	< 60 U
100-51-6	Benzyl Alcohol	60	< 60 U
95-50-1	1,2-Dichlorobenzene	60	< 60 U
95-48-7	2-Methylphenol	60	< 60 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	60	< 60 U
106-44-5	4-Methylphenol	60	< 60 U
621-64-7	N-Nitroso-Di-N-Propylamine	300	< 300 U
67-72-1	Hexachloroethane	60	< 60 U
98-95-3	Nitrobenzene	60	< 60 U
78-59-1	Isophorone	60	< 60 U
88-75-5	2-Nitrophenol	60	< 60 U
105-67-9	2,4-Dimethylphenol	60	< 60 U
65-85-0	Benzoic Acid	600	< 600 U
111-91-1	bis(2-Chloroethoxy) Methane	60	< 60 U
120-83-2	2,4-Dichlorophenol	300	< 300 U
120-82-1	1,2,4-Trichlorobenzene	60	< 60 U
91-20-3	Naphthalene	60	< 60 U
106-47-8	4-Chloroaniline	300	< 300 U
87-68-3	Hexachlorobutadiene	60	< 60 U
59-50-7	4-Chloro-3-methylphenol	300	< 300 U
91-57-6	2-Methylnaphthalene	60	< 60 U
77-47-4	Hexachlorocyclopentadiene	300	< 300 U
88-06-2	2,4,6-Trichlorophenol	300	< 300 U
95-95-4	2,4,5-Trichlorophenol	300	< 300 U
91-58-7	2-Chloronaphthalene	60	< 60 U
88-74-4	2-Nitroaniline	300	< 300 U
131-11-3	Dimethylphthalate	60	< 60 U
208-96-8	Acenaphthylene	60	< 60 U
99-09-2	3-Nitroaniline	300	< 300 U
83-32-9	Acenaphthene	60	< 60 U
51-28-5	2,4-Dinitrophenol	600	< 600 U
100-02-7	4-Nitrophenol	300	< 300 U
132-64-9	Dibenzofuran	60	< 60 U
606-20-2	2,6-Dinitrotoluene	300	< 300 U
121-14-2	2,4-Dinitrotoluene	300	< 300 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP11-9-081104  
SAMPLE

Lab Sample ID: NY07G  
LIMS ID: 08-30008  
Matrix: Soil  
Date Analyzed: 11/19/08 21:37

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	60	< 60 U
7005-72-3	4-Chlorophenyl-phenylether	60	< 60 U
86-73-7	Fluorene	60	< 60 U
100-01-6	4-Nitroaniline	300	< 300 U
534-52-1	4,6-Dinitro-2-Methylphenol	600	< 600 U
86-30-6	N-Nitrosodiphenylamine	60	< 60 U
101-55-3	4-Bromophenyl-phenylether	60	< 60 U
118-74-1	Hexachlorobenzene	60	< 60 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	Phenanthrene	60	< 60 U
86-74-8	Carbazole	60	< 60 U
120-12-7	Anthracene	60	< 60 U
84-74-2	Di-n-Butylphthalate	60	< 60 U
206-44-0	Fluoranthene	60	< 60 U
129-00-0	Pyrene	60	< 60 U
85-68-7	Butylbenzylphthalate	60	< 60 U
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	Benzo (a) anthracene	60	< 60 U
117-81-7	bis (2-Ethylhexyl) phthalate	60	< 60 U
218-01-9	Chrysene	60	< 60 U
117-84-0	Di-n-Octyl phthalate	60	< 60 U
205-99-2	Benzo (b) fluoranthene	60	< 60 U
207-08-9	Benzo (k) fluoranthene	60	< 60 U
50-32-8	Benzo (a) pyrene	60	< 60 U
193-39-5	Indeno (1,2,3-cd) pyrene	60	< 60 U
53-70-3	Dibenz (a,h) anthracene	60	< 60 U
191-24-2	Benzo (g,h,i) perylene	60	< 60 U
90-12-0	1-Methylnaphthalene	60	< 60 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	86.8%	2-Fluorobiphenyl	88.8%
d14-p-Terphenyl	104%	d4-1,2-Dichlorobenzene	88.4%
d5-Phenol	80.8%	2-Fluorophenol	81.1%
2,4,6-Tribromophenol	109%	d4-2-Chlorophenol	85.3%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP11-9-081104  
DILUTION

Lab Sample ID: NY07G  
LIMS ID: 08-30008  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 21:18  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.33 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 3.00  
Percent Moisture: 9.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	180	< 180 U
111-44-4	Bis-(2-Chloroethyl) Ether	180	< 180 U
95-57-8	2-Chlorophenol	180	< 180 U
541-73-1	1,3-Dichlorobenzene	180	< 180 U
106-46-7	1,4-Dichlorobenzene	180	< 180 U
100-51-6	Benzyl Alcohol	180	< 180 U
95-50-1	1,2-Dichlorobenzene	180	< 180 U
95-48-7	2-Methylphenol	180	< 180 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	180	< 180 U
106-44-5	4-Methylphenol	180	< 180 U
621-64-7	N-Nitroso-Di-N-Propylamine	900	< 900 U
67-72-1	Hexachloroethane	180	< 180 U
98-95-3	Nitrobenzene	180	< 180 U
78-59-1	Isophorone	180	< 180 U
88-75-5	2-Nitrophenol	180	< 180 U
105-67-9	2,4-Dimethylphenol	180	< 180 U
65-85-0	Benzoic Acid	1,800	< 1,800 U
111-91-1	bis(2-Chloroethoxy) Methane	180	< 180 U
120-83-2	2,4-Dichlorophenol	900	< 900 U
120-82-1	1,2,4-Trichlorobenzene	180	< 180 U
91-20-3	Naphthalene	180	< 180 U
106-47-8	4-Chloroaniline	900	< 900 U
87-68-3	Hexachlorobutadiene	180	< 180 U
59-50-7	4-Chloro-3-methylphenol	900	< 900 U
91-57-6	2-Methylnaphthalene	180	< 180 U
77-47-4	Hexachlorocyclopentadiene	900	< 900 U
88-06-2	2,4,6-Trichlorophenol	900	< 900 U
95-95-4	2,4,5-Trichlorophenol	900	< 900 U
91-58-7	2-Chloronaphthalene	180	< 180 U
88-74-4	2-Nitroaniline	900	< 900 U
131-11-3	Dimethylphthalate	180	< 180 U
208-96-8	Acenaphthylene	180	< 180 U
99-09-2	3-Nitroaniline	900	< 900 U
83-32-9	Acenaphthene	180	< 180 U
51-28-5	2,4-Dinitrophenol	1,800	< 1,800 U
100-02-7	4-Nitrophenol	900	< 900 U
132-64-9	Dibenzofuran	180	< 180 U
606-20-2	2,6-Dinitrotoluene	900	< 900 U
121-14-2	2,4-Dinitrotoluene	900	< 900 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP11-9-081104  
DILUTION

Lab Sample ID: NY07G  
LIMS ID: 08-30008  
Matrix: Soil  
Date Analyzed: 11/18/08 21:18

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	180	< 180 U
7005-72-3	4-Chlorophenyl-phenylether	180	< 180 U
86-73-7	Fluorene	180	< 180 U
100-01-6	4-Nitroaniline	900	< 900 U
534-52-1	4,6-Dinitro-2-Methylphenol	1,800	< 1,800 U
86-30-6	N-Nitrosodiphenylamine	180	< 180 U
101-55-3	4-Bromophenyl-phenylether	180	< 180 U
118-74-1	Hexachlorobenzene	180	< 180 U
87-86-5	Pentachlorophenol	900	< 900 U
85-01-8	Phenanthrene	180	< 180 U
86-74-8	Carbazole	180	< 180 U
120-12-7	Anthracene	180	< 180 U
84-74-2	Di-n-Butylphthalate	180	< 180 U
206-44-0	Fluoranthene	180	< 180 U
129-00-0	Pyrene	180	< 180 U
85-68-7	Butylbenzylphthalate	180	< 180 U
91-94-1	3,3'-Dichlorobenzidine	900	< 900 U
56-55-3	Benzo(a)anthracene	180	< 180 U
117-81-7	bis(2-Ethylhexyl)phthalate	180	< 180 U
218-01-9	Chrysene	180	< 180 U
117-84-0	Di-n-Octyl phthalate	180	< 180 U
205-99-2	Benzo(b)fluoranthene	180	< 180 U
207-08-9	Benzo(k)fluoranthene	180	< 180 U
50-32-8	Benzo(a)pyrene	180	< 180 U
193-39-5	Indeno(1,2,3-cd)pyrene	180	< 180 U
53-70-3	Dibenz(a,h)anthracene	180	< 180 U
191-24-2	Benzo(g,h,i)perylene	180	< 180 U
90-12-0	1-Methylnaphthalene	180	< 180 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	94.1%	2-Fluorobiphenyl	94.4%
d14-p-Terphenyl	99.1%	d4-1,2-Dichlorobenzene	96.7%
d5-Phenol	90.4%	2-Fluorophenol	84.8%
2,4,6-Tribromophenol	116%	d4-2-Chlorophenol	92.8%

**SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-111008	88.4%	95.6%	104%	93.2%	89.1%	84.3%	111%	90.7%	0	
LCS-111008	92.0%	102%	115%	92.8%	83.7%	87.2%	122%	93.1%	0	
LCSD-111008	92.0%	106%	117%	90.8%	81.6%	86.4%	125%	93.1%	0	
TDP7-8-081104	81.6%	85.2%	90.8%	86.4%	82.7%	79.5%	101%	83.2%	0	
TDP8-8-081104	82.8%	87.2%	82.8%	85.2%	80.0%	76.5%	102%	82.7%	0	
TDP11-9-081104	86.8%	88.8%	104%	88.4%	80.8%	81.1%	109%	85.3%	0	
TDP11-9-081104 DL	94.1%	94.4%	99.1%	96.7%	90.4%	84.8%	116%	92.8%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546  
Log Number Range: 08-30003 to 08-30008

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-111008  
LCS/LCSD

Lab Sample ID: LCS-111008  
LIMS ID: 08-30003  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted LCS/LCSD: 11/10/08

Sample Amount LCS: 7.50 g  
LCSD: 7.50 g

Date Analyzed LCS: 11/18/08 12:31  
LCSD: 11/18/08 13:06

Final Extract Volume LCS: 0.5 mL  
LCSD: 0.5 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	1790	1670	107%	1810	1670	108%	1.1%
Bis-(2-Chloroethyl) Ether	1530	1670	91.6%	1550	1670	92.8%	1.3%
2-Chlorophenol	1660	1670	99.4%	1690	1670	101%	1.8%
1,3-Dichlorobenzene	1610	1670	96.4%	1650	1670	98.8%	2.5%
1,4-Dichlorobenzene	1640	1670	98.2%	1650	1670	98.8%	0.6%
Benzyl Alcohol	2960	3330	88.9%	2940	3330	88.3%	0.7%
1,2-Dichlorobenzene	1650	1670	98.8%	1680	1670	101%	1.8%
2-Methylphenol	1690	1670	101%	1690	1670	101%	0.0%
2,2'-Oxybis(1-Chloropropane)	1410	1670	84.4%	1430	1670	85.6%	1.4%
4-Methylphenol	3310	3330	99.4%	3320	3330	99.7%	0.3%
N-Nitroso-Di-N-Propylamine	1500	1670	89.8%	1510	1670	90.4%	0.7%
Hexachloroethane	1590	1670	95.2%	1630	1670	97.6%	2.5%
Nitrobenzene	1410	1670	84.4%	1430	1670	85.6%	1.4%
Isophorone	1720	1670	103%	1750	1670	105%	1.7%
2-Nitrophenol	1830	1670	110%	1860	1670	111%	1.6%
2,4-Dimethylphenol	1640	1670	98.2%	1680	1670	101%	2.4%
Benzoic Acid	1400	5000	28.0%	1390	5000	27.8%	0.7%
bis(2-Chloroethoxy) Methane	1660	1670	99.4%	1680	1670	101%	1.2%
2,4-Dichlorophenol	1990	1670	119%	2070	1670	124%	3.9%
1,2,4-Trichlorobenzene	1750	1670	105%	1830	1670	110%	4.5%
Naphthalene	1780	1670	107%	1830	1670	110%	2.8%
4-Chloroaniline	7350	4000	184%	7330	4000	183%	0.3%
Hexachlorobutadiene	1820	1670	109%	1870	1670	112%	2.7%
4-Chloro-3-methylphenol	1940	1670	116%	1980	1670	119%	2.0%
2-Methylnaphthalene	1840	1670	110%	1900	1670	114%	3.2%
Hexachlorocyclopentadiene	4970	5000	99.4%	5190	5000	104%	4.3%
2,4,6-Trichlorophenol	1960	1670	117%	2010	1670	120%	2.5%
2,4,5-Trichlorophenol	1910	1670	114%	2040	1670	122%	6.6%
2-Chloronaphthalene	2000	1670	120%	2090	1670	125%	4.4%
2-Nitroaniline	1880	1670	113%	1950	1670	117%	3.7%
Dimethylphthalate	1890	1670	113%	1940	1670	116%	2.6%
Acenaphthylene	1900	1670	114%	1960	1670	117%	3.1%
3-Nitroaniline	5070	4270	119%	5090	4270	119%	0.4%
Acenaphthene	1890	1670	113%	1960	1670	117%	3.6%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCSD-111008  
LCS/LCSD

Lab Sample ID: LCS-111008  
LIMS ID: 08-30003  
Matrix: Soil  
Date Analyzed LCS: 11/18/08 12:31  
LCSD: 11/18/08 13:06

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	6520	5000	130%	6880	5000	138%	5.4%
4-Nitrophenol	2170	1670	130%	2090	1670	125%	3.8%
Dibenzofuran	1900	1670	114%	2020	1670	121%	6.1%
2,6-Dinitrotoluene	2230	1670	134%	2260	1670	135%	1.3%
2,4-Dinitrotoluene	2210	1670	132%	2340	1670	140%	5.7%
Diethylphthalate	2010	1670	120%	2080	1670	125%	3.4%
4-Chlorophenyl-phenylether	2010	1670	120%	2150	1670	129%	6.7%
Fluorene	2040	1670	122%	2170	1670	130%	6.2%
4-Nitroaniline	2040	1670	122%	2120	1670	127%	3.8%
4,6-Dinitro-2-Methylphenol	4040	5000	80.8%	4240	5000	84.8%	4.8%
N-Nitrosodiphenylamine	1880	1670	113%	1940	1670	116%	3.1%
4-Bromophenyl-phenylether	1890	1670	113%	2030	1670	122%	7.1%
Hexachlorobenzene	1980	1670	119%	2160	1670	129%	8.7%
Pentachlorophenol	2140	1670	128%	2180	1670	131%	1.9%
Phenanthrene	1900	1670	114%	1990	1670	119%	4.6%
Carbazole	1930	1670	116%	2000	1670	120%	3.6%
Anthracene	1890	1670	113%	2010	1670	120%	6.2%
Di-n-Butylphthalate	1920	1670	115%	1980	1670	119%	3.1%
Fluoranthene	1980	1670	119%	2040	1670	122%	3.0%
Pyrene	1960	1670	117%	2070	1670	124%	5.5%
Butylbenzylphthalate	1950	1670	117%	2000	1670	120%	2.5%
3,3'-Dichlorobenzidine	4990	4270	117%	5080	4270	119%	1.8%
Benzo(a)anthracene	1930	1670	116%	1980	1670	119%	2.6%
bis(2-Ethylhexyl)phthalate	1930	1670	116%	1970	1670	118%	2.1%
Chrysene	1970	1670	118%	2020	1670	121%	2.5%
Di-n-Octyl phthalate	1910	1670	114%	1940	1670	116%	1.6%
Benzo(b)fluoranthene	2020	1670	121%	2050	1670	123%	1.5%
Benzo(k)fluoranthene	1940	1670	116%	1990	1670	119%	2.5%
Benzo(a)pyrene	1680	1670	101%	1710	1670	102%	1.8%
Indeno(1,2,3-cd)pyrene	1830	1670	110%	1870	1670	112%	2.2%
Dibenz(a,h)anthracene	1850	1670	111%	1900	1670	114%	2.7%
Benzo(g,h,i)perylene	1650	1670	98.8%	1700	1670	102%	3.0%
1-Methylnaphthalene	1940	1670	116%	2000	1670	120%	3.0%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	92.0%	92.0%
2-Fluorobiphenyl	102%	106%
d14-p-Terphenyl	115%	117%
d4-1,2-Dichlorobenzene	92.8%	90.8%
d5-Phenol	83.7%	81.6%
2-Fluorophenol	87.2%	86.4%
2,4,6-Tribromophenol	122%	125%
d4-2-Chlorophenol	93.1%	93.1%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-111008  
METHOD BLANK

Lab Sample ID: MB-111008  
LIMS ID: 08-30003  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 11:56  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-111008  
METHOD BLANK

Lab Sample ID: MB-111008  
LIMS ID: 08-30003  
Matrix: Soil  
Date Analyzed: 11/18/08 11:56

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo (a) anthracene	67	< 67 U
117-81-7	bis (2-Ethylhexyl) phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo (b) fluoranthene	67	< 67 U
207-08-9	Benzo (k) fluoranthene	67	< 67 U
50-32-8	Benzo (a) pyrene	67	< 67 U
193-39-5	Indeno (1,2,3-cd) pyrene	67	< 67 U
53-70-3	Dibenz (a,h) anthracene	67	< 67 U
191-24-2	Benzo (g,h,i) perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	88.4%	2-Fluorobiphenyl	95.6%
d14-p-Terphenyl	104%	d4-1,2-Dichlorobenzene	93.2%
d5-Phenol	89.1%	2-Fluorophenol	84.3%
2,4,6-Tribromophenol	111%	d4-2-Chlorophenol	90.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP8-GW-081104  
SAMPLE

Lab Sample ID: NY07M  
LIMS ID: 08-30014  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 11/10/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted: 11/05/08  
Date Analyzed: 11/08/08 02:43  
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP8-GW-081104  
SAMPLE

Lab Sample ID: NY07M  
LIMS ID: 08-30014  
Matrix: Water  
Date Analyzed: 11/08/08 02:43

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
<b>117-81-7</b>	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>2.5</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	75.2%
d14-p-Terphenyl	95.2%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	83.5%	2-Fluorophenol	77.6%
2,4,6-Tribromophenol	91.2%	d4-2-Chlorophenol	80.0%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: TDP7-GW-081104  
SAMPLELab Sample ID: NY07N  
LIMS ID: 08-30015  
Matrix: Water  
Data Release Authorized:   
Reported: 11/10/08QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08Date Extracted: 11/05/08  
Date Analyzed: 11/08/08 03:17  
Instrument/Analyst: NT6/LJRSample Amount: 500 mL  
Final Extract Volume: 0.50 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	2.0

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP7-GW-081104  
SAMPLE

Lab Sample ID: NY07N  
LIMS ID: 08-30015  
Matrix: Water  
Date Analyzed: 11/08/08 03:17

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	1.0
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	76.0%	2-Fluorobiphenyl	77.2%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	72.4%
d5-Phenol	80.5%	2-Fluorophenol	76.3%
2,4,6-Tribromophenol	87.7%	d4-2-Chlorophenol	78.7%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP11-GW-081104  
SAMPLE

Lab Sample ID: NY070  
LIMS ID: 08-30016  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 11/10/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted: 11/05/08  
Date Analyzed: 11/08/08 03:52  
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP11-GW-081104  
SAMPLE

Lab Sample ID: NY070  
LIMS ID: 08-30016  
Matrix: Water  
Date Analyzed: 11/08/08 03:52

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEIII  
025173.070

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>1.1</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	78.0%
d14-p-Terphenyl	75.6%	d4-1,2-Dichlorobenzene	73.2%
d5-Phenol	84.3%	2-Fluorophenol	77.9%
2,4,6-Tribromophenol	88.0%	d4-2-Chlorophenol	79.5%

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-110508	83.2%	81.2%	102%	81.2%	89.1%	84.0%	88.5%	85.3%		0
LCS-110508	90.0%	86.4%	101%	88.0%*	96.3%	90.1%	94.9%	92.5%		1
LCSD-110508	88.4%	85.2%	102%	72.8%	95.2%	89.6%	96.5%	91.2%		0
TDP8-GW-081104	77.6%	75.2%	95.2%	64.4%	83.5%	77.6%	91.2%	80.0%		0
TDP7-GW-081104	76.0%	77.2%	78.0%	72.4%	80.5%	76.3%	87.7%	78.7%		0
TDP11-GW-081104	77.6%	78.0%	75.6%	73.2%	84.3%	77.9%	88.0%	79.5%		0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C  
Log Number Range: 08-30014 to 08-30016

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-110508  
LCS/LCSD

Lab Sample ID: LCS-110508  
LIMS ID: 08-30014  
Matrix: Water  
Data Release Authorized:  
Reported: 11/10/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted LCS/LCSD: 11/05/08

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 11/07/08 15:49  
LCSD: 11/07/08 16:24

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT6/LJR  
LCSD: NT6/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	22.9	25.0	91.6%	23.7	25.0	94.8%	3.4%
Bis-(2-Chloroethyl) Ether	24.6	25.0	98.4%	24.8	25.0	99.2%	0.8%
2-Chlorophenol	24.5	25.0	98.0%	25.4	25.0	102%	3.6%
1,3-Dichlorobenzene	20.6	25.0	82.4%	18.3	25.0	73.2%	11.8%
1,4-Dichlorobenzene	20.7	25.0	82.8%	18.4	25.0	73.6%	11.8%
Benzyl Alcohol	43.2	50.0	86.4%	43.3	50.0	86.6%	0.2%
1,2-Dichlorobenzene	21.3	25.0	85.2%	19.2	25.0	76.8%	10.4%
2-Methylphenol	25.5	25.0	102%	26.0	25.0	104%	1.9%
2,2'-Oxybis(1-Chloropropane)	25.3	25.0	101%	26.2	25.0	105%	3.5%
4-Methylphenol	51.8	50.0	104%	53.5	50.0	107%	3.2%
N-Nitroso-Di-N-Propylamine	26.6	25.0	106%	27.2	25.0	109%	2.2%
Hexachloroethane	19.1	25.0	76.4%	16.2	25.0	64.8%	16.4%
Nitrobenzene	23.2	25.0	92.8%	24.4	25.0	97.6%	5.0%
Isophorone	27.1	25.0	108%	27.9	25.0	112%	2.9%
2-Nitrophenol	25.6	25.0	102%	26.9	25.0	108%	5.0%
2,4-Dimethylphenol	17.2	25.0	68.8%	19.6	25.0	78.4%	13.0%
Benzoic Acid	89.6	75.0	119%	89.0	75.0	119%	0.7%
bis(2-Chloroethoxy) Methane	25.7	25.0	103%	27.3	25.0	109%	6.0%
2,4-Dichlorophenol	25.7	25.0	103%	26.9	25.0	108%	4.6%
1,2,4-Trichlorobenzene	22.6	25.0	90.4%	20.3	25.0	81.2%	10.7%
Naphthalene	23.6	25.0	94.4%	23.6	25.0	94.4%	0.0%
4-Chloroaniline	67.0	60.0	112%	65.6	60.0	109%	2.1%
Hexachlorobutadiene	22.0	25.0	88.0%	18.5	25.0	74.0%	17.3%
4-Chloro-3-methylphenol	26.8	25.0	107%	28.2	25.0	113%	5.1%
2-Methylnaphthalene	22.6	25.0	90.4%	23.0	25.0	92.0%	1.8%
Hexachlorocyclopentadiene	44.9	75.0	59.9%	42.1	75.0	56.1%	6.4%
2,4,6-Trichlorophenol	24.6	25.0	98.4%	26.2	25.0	105%	6.3%
2,4,5-Trichlorophenol	24.9	25.0	99.6%	25.9	25.0	104%	3.9%
2-Chloronaphthalene	23.7	25.0	94.8%	24.2	25.0	96.8%	2.1%
2-Nitroaniline	24.5	25.0	98.0%	26.3	25.0	105%	7.1%
Dimethylphthalate	24.9	25.0	99.6%	26.5	25.0	106%	6.2%
Acenaphthylene	23.5	25.0	94.0%	24.6	25.0	98.4%	4.6%
3-Nitroaniline	77.3	64.0	121%	81.1	64.0	127%	4.8%
Acenaphthene	24.4	25.0	97.6%	25.3	25.0	101%	3.6%
2,4-Dinitrophenol	98.7	75.0	132%	99.9	75.0	133%	1.2%
4-Nitrophenol	24.6	25.0	98.4%	25.5	25.0	102%	3.6%
Dibenzofuran	23.5	25.0	94.0%	24.3	25.0	97.2%	3.3%
2,6-Dinitrotoluene	26.2	25.0	105%	28.2	25.0	113%	7.4%
2,4-Dinitrotoluene	27.1	25.0	108%	28.8	25.0	115%	6.1%
Diethylphthalate	25.0	25.0	100%	26.3	25.0	105%	5.1%
4-Chlorophenyl-phenylether	24.3	25.0	97.2%	25.5	25.0	102%	4.8%
Fluorene	25.2	25.0	101%	26.6	25.0	106%	5.4%
4-Nitroaniline	26.0	25.0	104%	28.0	25.0	112%	7.4%
4,6-Dinitro-2-Methylphenol	58.3	75.0	77.7%	59.2	75.0	78.9%	1.5%
N-Nitrosodiphenylamine	24.5	25.0	98.0%	25.4	25.0	102%	3.6%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-110508  
LCS/LCSD

Lab Sample ID: LCS-110508  
LIMS ID: 08-30014  
Matrix: Water  
Date Analyzed: 11/07/08 15:49

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	24.8	25.0	99.2%	26.2	25.0	105%	5.5%
Hexachlorobenzene	25.1	25.0	100%	26.1	25.0	104%	3.9%
Pentachlorophenol	24.5	25.0	98.0%	25.2	25.0	101%	2.8%
Phenanthrene	25.1	28.0	89.6%	26.5	28.0	94.6%	5.4%
Carbazole	26.8	25.0	107%	28.0	25.0	112%	4.4%
Anthracene	24.4	25.0	97.6%	25.4	25.0	102%	4.0%
Di-n-Butylphthalate	26.2	25.0	105%	27.4	25.0	110%	4.5%
Fluoranthene	26.0	25.0	104%	27.2	25.0	109%	4.5%
Pyrene	26.5	25.0	106%	27.9	25.0	112%	5.1%
Butylbenzylphthalate	27.6	25.0	110%	28.9	25.0	116%	4.6%
3,3'-Dichlorobenzidine	65.8	64.0	103%	65.8	64.0	103%	0.0%
Benzo(a)anthracene	25.8	25.0	103%	27.0	25.0	108%	4.5%
bis(2-Ethylhexyl)phthalate	28.8	25.0	115%	30.1	25.0	120%	4.4%
Chrysene	24.8	28.0	88.6%	26.1	28.0	93.2%	5.1%
Di-n-Octyl phthalate	25.0	25.0	100%	26.2	25.0	105%	4.7%
Benzo(b)fluoranthene	27.6	25.0	110%	27.0	25.0	108%	2.2%
Benzo(k)fluoranthene	25.8	28.0	92.1%	29.3	28.0	105%	12.7%
Benzo(a)pyrene	21.9	25.0	87.6%	22.7	25.0	90.8%	3.6%
Indeno(1,2,3-cd)pyrene	24.7	25.0	98.8%	25.7	25.0	103%	4.0%
Dibenz(a,h)anthracene	24.3	25.0	97.2%	25.6	25.0	102%	5.2%
Benzo(g,h,i)perylene	23.9	25.0	95.6%	25.0	25.0	100%	4.5%
1-Methylnaphthalene	26.4	25.0	106%	26.4	25.0	106%	0.0%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	90.0%	88.4%
2-Fluorobiphenyl	86.4%	85.2%
d14-p-Terphenyl	101%	102%
d4-1,2-Dichlorobenzene	88.0%	72.8%
d5-Phenol	96.3%	95.2%
2-Fluorophenol	90.1%	89.6%
2,4,6-Tribromophenol	94.9%	96.5%
d4-2-Chlorophenol	92.5%	91.2%

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

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-110508  
METHOD BLANK

Lab Sample ID: MB-110508  
LIMS ID: 08-30014  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 11/10/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/05/08  
Date Analyzed: 11/07/08 15:15  
Instrument/Analyst: NT6/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-110508  
METHOD BLANK

Lab Sample ID: MB-110508  
LIMS ID: 08-30014  
Matrix: Water  
Date Analyzed: 11/07/08 15:15

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	83.2%	2-Fluorobiphenyl	81.2%
d14-p-Terphenyl	102%	d4-1,2-Dichlorobenzene	81.2%
d5-Phenol	89.1%	2-Fluorophenol	84.0%
2,4,6-Tribromophenol	88.5%	d4-2-Chlorophenol	85.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP8-GW-081104

SAMPLE

Lab Sample ID: NY07M

LIMS ID: 08-30014

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/11/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

Event: 025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Date Extracted: 11/05/08

Date Analyzed: 11/08/08 13:36

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 62.7%  
d14-Dibenzo (a,h) anthracene 71.0%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP7-GW-081104

SAMPLE

Lab Sample ID: NY07N

LIMS ID: 08-30015

Matrix: Water

Data Release Authorized: 

Reported: 11/11/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

Event: 025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Date Extracted: 11/05/08

Date Analyzed: 11/08/08 14:32

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 65.0%  
d14-Dibenzo(a,h)anthracene 65.0%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP11-GW-081104

**SAMPLE**

Lab Sample ID: NY070

LIMS ID: 08-30016

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/11/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

Event: 025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Date Extracted: 11/05/08

Date Analyzed: 11/08/08 14:57

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U
191-24-2	Benzo(g,h,i)perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 59.3%  
d14-Dibenzo(a,h)anthracene 37.3%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-110508	61.0%	86.3%	0
LCS-110508	64.0%	88.7%	0
LCSD-110508	66.3%	87.3%	0
TDP8-GW-081104	62.7%	71.0%	0
TDP7-GW-081104	65.0%	65.0%	0
TDP11-GW-081104	59.3%	37.3%	0

**LCS/MB LIMITS      QC LIMITS**

(MNP) = d10-2-Methylnaphthalene      (49-113)      (44-112)  
(DBA) = d14-Dibenzo(a,h)anthracene      (49-132)      (10-138)

Prep Method: SW3520C  
Log Number Range: 08-30014 to 08-30016

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-110508

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110508

LIMS ID: 08-30014

Matrix: Water

Data Release Authorized:

Reported: 11/11/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

Event: 025173.070

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/05/08

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 11/08/08 12:21

Final Extract Volume LCS: 0.50 mL

LCSD: 11/08/08 12:46

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/VTS

Dilution Factor LCS: 1.00

LCSD: NT1/VTS

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	1.83	3.00	61.0%	1.93	3.00	64.3%	5.3%
2-Methylnaphthalene	1.84	3.00	61.3%	1.98	3.00	66.0%	7.3%
1-Methylnaphthalene	1.77	3.00	59.0%	1.89	3.00	63.0%	6.6%
Acenaphthylene	2.04	3.00	68.0%	2.02	3.00	67.3%	1.0%
Acenaphthene	1.97	3.00	65.7%	2.00	3.00	66.7%	1.5%
Fluorene	2.11	3.00	70.3%	2.13	3.00	71.0%	0.9%
Phenanthrene	2.19	3.00	73.0%	2.27	3.00	75.7%	3.6%
Anthracene	2.13	3.00	71.0%	2.20	3.00	73.3%	3.2%
Fluoranthene	2.39	3.00	79.7%	2.43	3.00	81.0%	1.7%
Pyrene	2.59	3.00	86.3%	2.61	3.00	87.0%	0.8%
Benzo(a)anthracene	2.34	3.00	78.0%	2.31	3.00	77.0%	1.3%
Chrysene	2.36	3.00	78.7%	2.42	3.00	80.7%	2.5%
Benzo(b)fluoranthene	2.42	3.00	80.7%	2.34	3.00	78.0%	3.4%
Benzo(k)fluoranthene	2.42	3.00	80.7%	2.63	3.00	87.7%	8.3%
Benzo(a)pyrene	2.35	3.00	78.3%	2.35	3.00	78.3%	0.0%
Indeno(1,2,3-cd)pyrene	2.42	3.00	80.7%	2.47	3.00	82.3%	2.0%
Dibenz(a,h)anthracene	2.47	3.00	82.3%	2.44	3.00	81.3%	1.2%
Benzo(g,h,i)perylene	2.40	3.00	80.0%	2.52	3.00	84.0%	4.9%
Dibenzofuran	2.05	3.00	68.3%	2.11	3.00	70.3%	2.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	64.0%	66.3%
d14-Dibenzo(a,h)anthracene	88.7%	87.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-110508

METHOD BLANK

Lab Sample ID: MB-110508

LIMS ID: 08-30014

Matrix: Water

Data Release Authorized: *AB*

Reported: 11/11/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

Event: 025173.070

Date Sampled: NA

Date Received: NA

Date Extracted: 11/05/08

Date Analyzed: 11/08/08 11:57

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 61.0%  
d14-Dibenzo (a,h) anthracene 86.3%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP7-8-081104

**SAMPLE**

Lab Sample ID: NY07B

LIMS ID: 08-30003

Matrix: Soil

Data Release Authorized: **UTS**

Reported: 11/15/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 09:57

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 22.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	92.2%
Tetrachlorometaxylene	92.2%

Sample ID: TDP8-8-081104  
SAMPLE

Lab Sample ID: NY07C  
LIMS ID: 08-30004  
Matrix: Soil  
Data Release Authorized: **VTS**  
Reported: 11/15/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: 11/04/08  
Date Received: 11/04/08

Date Extracted: 11/10/08  
Date Analyzed: 11/12/08 10:14  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 13.0 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 20.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	98.2%
Tetrachlorometaxylene	84.8%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP11-9-081104

**SAMPLE**

Lab Sample ID: NY07G

LIMS ID: 08-30008

Matrix: Soil

Data Release Authorized: *VTS*

Reported: 11/15/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 10:31

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 9.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	91.8%
Tetrachlorometaxylene	94.0%

**SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-111008	94.2%	30-160	95.5%	30-160	0
LCS-111008	95.5%	30-160	94.5%	30-160	0
LCSD-111008	98.5%	30-160	94.8%	30-160	0
TDP7-8-081104	92.2%	30-160	92.2%	30-160	0
TDP8-8-081104	98.2%	30-160	84.8%	30-160	0
TDP11-9-081104	91.8%	30-160	94.0%	30-160	0

Microwave (MARS) Control Limits  
Prep Method: SW3546  
Log Number Range: 08-30003 to 08-30008

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

**Sample ID: LCS-111008**  
**LCS/LCSD**

Lab Sample ID: LCS-111008  
 LIMS ID: 08-30003  
 Matrix: Soil  
 Data Release Authorized: *VTS*  
 Reported: 11/15/08

QC Report No: NY07-The Boeing Company  
 Project: SEATTLE/PHASEII  
 025173.070  
 Date Sampled: NA  
 Date Received: NA

Date Extracted LCS/LCSD: 11/10/08  
 Date Analyzed LCS: 11/12/08 08:32  
 LCSD: 11/12/08 08:49  
 Instrument/Analyst LCS: ECD5/JGR  
 LCSD: ECD5/JGR

Sample Amount LCS: 12.0 g-dry-wt  
 LCSD: 12.0 g-dry-wt  
 Final Extract Volume LCS: 4.0 mL  
 LCSD: 4.0 mL  
 Dilution Factor LCS: 1.00  
 LCSD: 1.00  
 Silica Gel: No

GPC Cleanup: No  
 Sulfur Cleanup: Yes  
 Acid Cleanup: Yes  
 Florisil Cleanup: No

Percent Moisture: NA

Analyte	Spike		LCS	LCSD	Spike		RPD
	LCS	Added-LCS	Recovery		Added-LCSD	Recovery	
Aroclor 1016	139	167	83.4%	144	167	86.4%	3.5%
Aroclor 1260	155	167	93.0%	161	167	96.6%	3.8%

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	95.5%	98.5%
Tetrachlorometaxylene	94.5%	94.8%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)  
 RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: MB-111008

**METHOD BLANK**

Lab Sample ID: MB-111008

LIMS ID: 08-30003

Matrix: Soil

Data Release Authorized: *VTS*

Reported: 11/15/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: NA

Date Received: NA

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 08:15

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	94.2%
Tetrachlorometaxylene	95.5%

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

Sample ID: TDP8-GW-081104  
**SAMPLE**

Lab Sample ID: NY07M  
 LIMS ID: 08-30014  
 Matrix: Water  
 Data Release Authorized: *AB*  
 Reported: 11/11/08

QC Report No: NY07-The Boeing Company  
 Project: SEATTLE/PHASEII  
 025173.070  
 Date Sampled: 11/04/08  
 Date Received: 11/04/08

Date Extracted: 11/05/08  
 Date Analyzed: 11/07/08 18:40  
 Instrument/Analyst: ECD5/JGR  
 GPC Cleanup: No  
 Sulfur Cleanup: No

Sample Amount: 500 mL  
 Final Extract Volume: 5.0 mL  
 Dilution Factor: 1.00  
 Silica Gel: No  
 Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	71.2%
Tetrachlorometaxylene	74.8%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP7-GW-081104

**SAMPLE**

Lab Sample ID: NY07N

LIMS ID: 08-30015

Matrix: Water

Data Release Authorized: *AS*

Reported: 11/11/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Date Extracted: 11/05/08

Date Analyzed: 11/07/08 18:57

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	63.2%
Tetrachlorometaxylene	80.0%

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

Sample ID: TDP11-GW-081104  
**SAMPLE**

Lab Sample ID: NY070  
 LIMS ID: 08-30016  
 Matrix: Water  
 Data Release Authorized:   
 Reported: 11/11/08

QC Report No: NY07-The Boeing Company  
 Project: SEATTLE/PHASEII  
 025173.070  
 Date Sampled: 11/04/08  
 Date Received: 11/04/08

Date Extracted: 11/05/08  
 Date Analyzed: 11/07/08 19:14  
 Instrument/Analyst: ECD5/JGR  
 GPC Cleanup: No  
 Sulfur Cleanup: No

Sample Amount: 500 mL  
 Final Extract Volume: 5.0 mL  
 Dilution Factor: 1.00  
 Silica Gel: No  
 Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	55.8%
Tetrachlorometaxylene	68.5%

**SW8082/PCB WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-110508	81.5%	47-101	75.5%	61-104	0
LCS-110508	98.5%	47-101	91.0%	61-104	0
LCSD-110508	75.2%	47-101	87.5%	61-104	0
TDP8-GW-081104	71.2%	42-120	74.8%	55-102	0
TDP7-GW-081104	63.2%	42-120	80.0%	55-102	0
TDP11-GW-081104	55.8%	42-120	68.5%	55-102	0

Prep Method: SW3510C  
Log Number Range: 08-30014 to 08-30016

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

Sample ID: LCS-110508  
 LCS/LCSD

Lab Sample ID: LCS-110508  
 LIMS ID: 08-30014  
 Matrix: Water  
 Data Release Authorized: *[Signature]*  
 Reported: 11/11/08

QC Report No: NY07-The Boeing Company  
 Project: SEATTLE/PHASEII  
 025173.070  
 Date Sampled: NA  
 Date Received: NA

Date Extracted LCS/LCSD: 11/05/08

Sample Amount LCS: 500 mL  
 LCSD: 500 mL

Date Analyzed LCS: 11/07/08 17:49  
 LCSD: 11/07/08 18:06

Final Extract Volume LCS: 5.0 mL  
 LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/JGR  
 LCSD: ECD5/JGR

Dilution Factor LCS: 1.00  
 LCSD: 1.00

GPC Cleanup: No  
 Sulfur Cleanup: No

Silica Gel: No  
 Acid Cleanup: No

Analyte	Spike		LCS		Spike		LCSD	
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	LCSD	RPD
Aroclor 1016	4.52	5.00	90.4%	4.22	5.00	84.4%	6.9%	
Aroclor 1260	4.84	5.00	96.8%	4.69	5.00	93.8%	3.1%	

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	98.5%	75.2%
Tetrachlorometaxylene	91.0%	87.5%

Results reported in  $\mu\text{g/L}$   
 RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

Sample ID: MB-110508  
 METHOD BLANK

Lab Sample ID: MB-110508  
 LIMS ID: 08-30014  
 Matrix: Water  
 Data Release Authorized:  
 Reported: 11/11/08

QC Report No: NY07-The Boeing Company  
 Project: SEATTLE/PHASEII  
 025173.070  
 Date Sampled: NA  
 Date Received: NA

Date Extracted: 11/05/08  
 Date Analyzed: 11/07/08 17:32  
 Instrument/Analyst: ECD5/JGR  
 GPC Cleanup: No  
 Sulfur Cleanup: No

Sample Amount: 500 mL  
 Final Extract Volume: 5.0 mL  
 Dilution Factor: 1.00  
 Silica Gel: No  
 Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	81.5%
Tetrachlorometaxylene	75.5%

**ORGANICS ANALYSIS DATA SHEET**  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 2  
 Matrix: Soil

QC Report No: NY07-The Boeing Company  
 Project: SEATTLE/PHASEII  
 025173.070

Data Release Authorized:   
 Reported: 11/06/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-110508 08-30002	Method Blank	11/05/08	11/05/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 86.0%
NY07A 08-30002	TPD6-8-081104 HC ID: ---	11/05/08	11/06/08	1.0	Gas Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 86.5%
NY07ADP 08-30002	TPD6-8-081104 HC ID: ---	11/05/08	11/06/08	1.0	Gas Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 89.7%
NY07B 08-30003	TDP7-8-081104 HC ID: ---	11/05/08	11/06/08	1.0	Gas Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 89.9%
NY07C 08-30004	TDP8-8-081104 HC ID: ---	11/05/08	11/06/08	1.0	Gas Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 93.1%
NY07D 08-30005	TDP9-8-081104 HC ID: ---	11/05/08	11/06/08	1.0	Gas Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 90.8%
NY07E 08-30006	TDP10-8-081104 HC ID: ---	11/05/08	11/06/08	1.0	Gas Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 91.1%
NY07G 08-30008	TDP11-9-081104 HC ID: MOTOR OIL	11/05/08	11/06/08	1.0	Gas Diesel Oil o-Terphenyl	> 20 < 50 U > 100 87.3%
NY07H 08-30009	TDP12-7-081104 HC ID: MOTOR OIL	11/05/08	11/06/08	5.0	Gas Diesel Oil o-Terphenyl	< 67 U < 170 U > 330 80.2%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 2 of 2

Matrix: Soil

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Data Release Authorized: 

Reported: 11/06/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
NY07J 08-30011	TDP13-7-081104 HC ID: ---	11/05/08	11/06/08	1.0	<b>Gas</b> Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 90.5%
NY07K 08-30012	TDP14-4-081104 HC ID: ---	11/05/08	11/06/08	1.0	<b>Gas</b> Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 91.4%
NY07L 08-30013	TDP15-4-081104 HC ID: ---	11/05/08	11/06/08	1.0	<b>Gas</b> Diesel Oil o-Terphenyl	> 20 < 50 U < 100 U 92.8%

Reported in mg/kg (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a053.d ARI ID: NYO7MBS1  
 Method: /chem3/fid3a.i/20081105.b/1105a051b.d/ftphfid3a.m Client ID:  
 Instrument: fid3a.i Injection: 05-NOV-2008 23:54  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.794	0.004	150358	154466	GAS (Tol-C12)	1266171	38
C8	1.893	0.001	9952	7282	DIESEL (C12-C24)	126806	7
C10	2.442	-0.001	5435	11898	M.OIL (C24-C38)	269113	26
C12	2.921	-0.001	2198	2433	AK-102 (C10-C25)	222404	10
C14	3.343	0.004	1522	692	AK-103 (C25-C36)	206845	23
C16	3.721	-0.004	991	157	OR.DIES (C10-C28)	262100	12
C18	4.162	0.005	735	404	OR.MOIL (C28-C40)	299539	32
C20	4.580	0.004	872	223	JET-A (C10-C18)	173866	10
C22	4.925	-0.006	895	736	MIN.OIL (C24-C38)	269113	21
C24	5.235	0.003	1008	1005	MSPIRIT (Tol-C12)	1266171	80
C25	5.365	-0.004	1161	1075			
C26	5.488	-0.007	1306	1201			
C28	5.724	-0.007	2395	3149			
C32	6.170	-0.001	4986	10764			
C34	6.419	0.001	3200	891			
Filter Peak	8.431	-0.023	2930	2712	JP-4 (Tol-C14)	1304953	115
C36	6.707	-0.002	3204	890	CREOSOT (C8-C22)	397711	64
C38	7.078	0.000	2877	1260			
C40	7.541	-0.012	2696	590	BUNKERC (C10-C38)	489398	55
=====							
AZDIESEL (C10-C22)			180145	11			
AZMOIL (C22-C32)			122659	19			
=====							

Range Times: NW Diesel (2.971 - 5.282) NW Gas (1.741 - 2.971) NW M.Oil (5.282 - 7.128)  
 AK102 (2.393 - 5.318) AK103 (5.318 - 6.759) Jet A (2.393 - 4.208)

*ms 11/6/08*

Surrogate	Area	Amount	%Rec
o-Terphenyl	803497	38.7	86.0
Triacontane	691612	40.1	89.1

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a053.d

Date : 05-NOV-2008 23:54

Client ID:

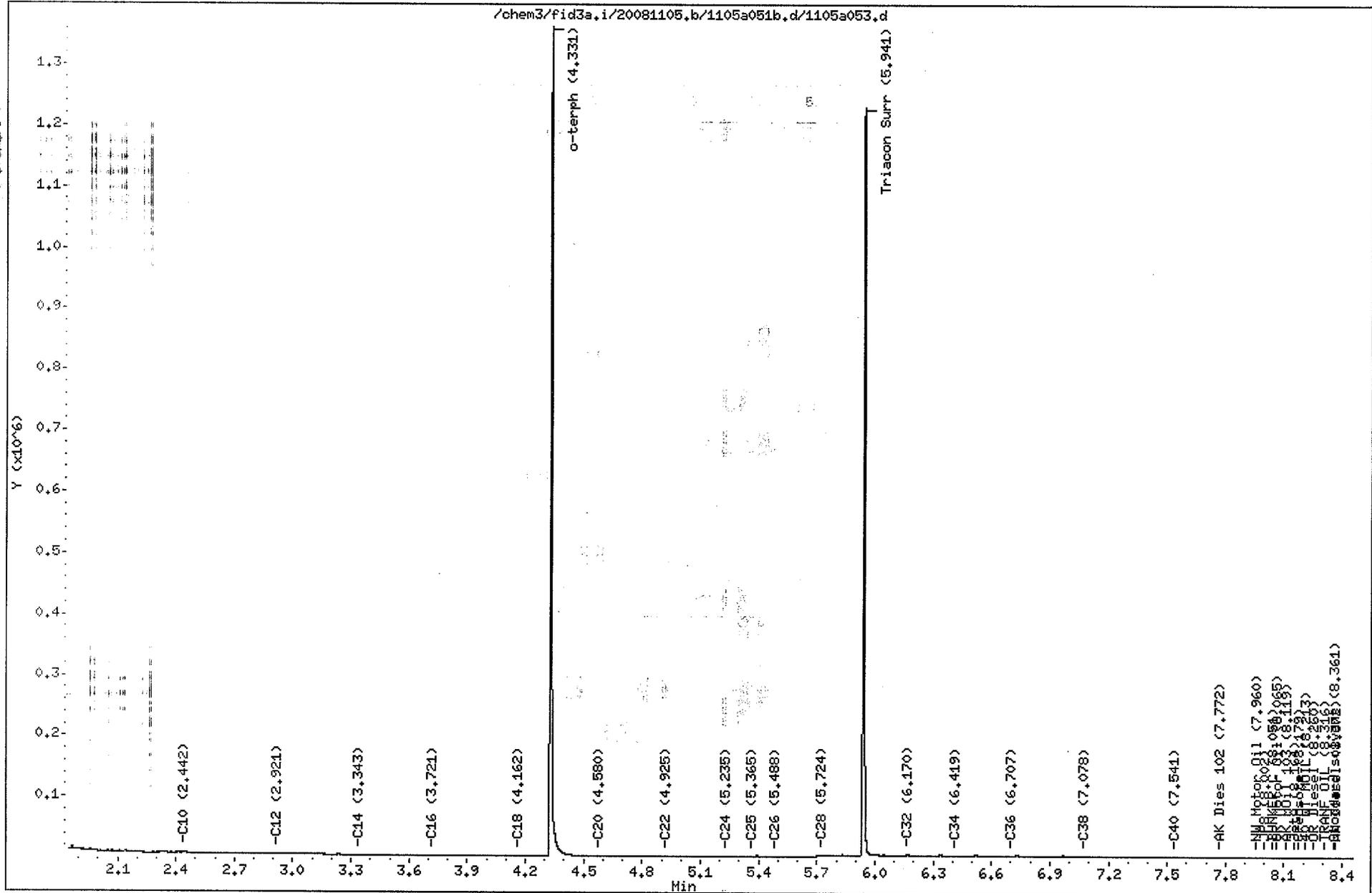
Instrument: fid3a.i

Sample Info: NY07MBS1

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a054.d ARI ID: NY07A  
 Method: /chem3/fid3a.i/20081105.b/1105a051b.d/ftphfid3a.m Current ID:  
 Instrument: fid3a.i Injection: 06-NOV-2008 00:08  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.793	0.002	161634	53788	GAS (Tol-C12)	1239590	37 ✓
C8	1.896	0.004	10470	13021	DIESEL (C12-C24)	150595	9 ✓
C10	2.441	-0.001	5707	12509	M.OIL (C24-C38)	278336	26 ✓
C12	2.922	0.001	2378	2546	AK-102 (C10-C25)	255623	12
C14	3.340	0.001	1679	732	AK-103 (C25-C36)	214872	23
C16	3.728	0.004	1142	1599	OR.DIES (C10-C28)	295486	14
C18	4.155	-0.003	888	629	OR.MOIL (C28-C40)	308345	33
C20	4.581	0.005	910	853	JET-A (C10-C18)	195196	11
C22	4.924	-0.007	970	765	MIN.OIL (C24-C38)	278336	22
C24	5.232	0.000	1008	959	MSPRIT (Tol-C12)	1239590	78
C25	5.361	-0.008	1151	943			
C26	5.486	-0.009	1295	1155			
C28	5.742	0.011	2065	2594			
C32	6.154	-0.016	6097	12728			
C34	6.415	-0.003	3232	1865			
Filter Peak	8.449	-0.005	2652	1106	JP-4 (Tol-C14)	1284715	113
C36	6.710	0.001	5539	12038	CREOSOT (C8-C22)	449188	72
C38	7.074	-0.004	2868	1995			
C40	7.550	-0.002	3807	11769	BUNKERC (C10-C38)	531539	59

AZDIESEL (C10-C22)	212480	13
AZMOIL (C22-C32)	126896	20

Range Times: NW Diesel(2.971 - 5.282) NW Gas(1.741 - 2.971) NW M.Oil(5.282 - 7.128)  
 AK102(2.393 - 5.318) AK103(5.318 - 6.759) Jet A(2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	807841	38.9	86.5 ✓
Triacontane	714499	41.4	92.0

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a054.d

Date : 06-NOV-2008 00:08

Client ID:

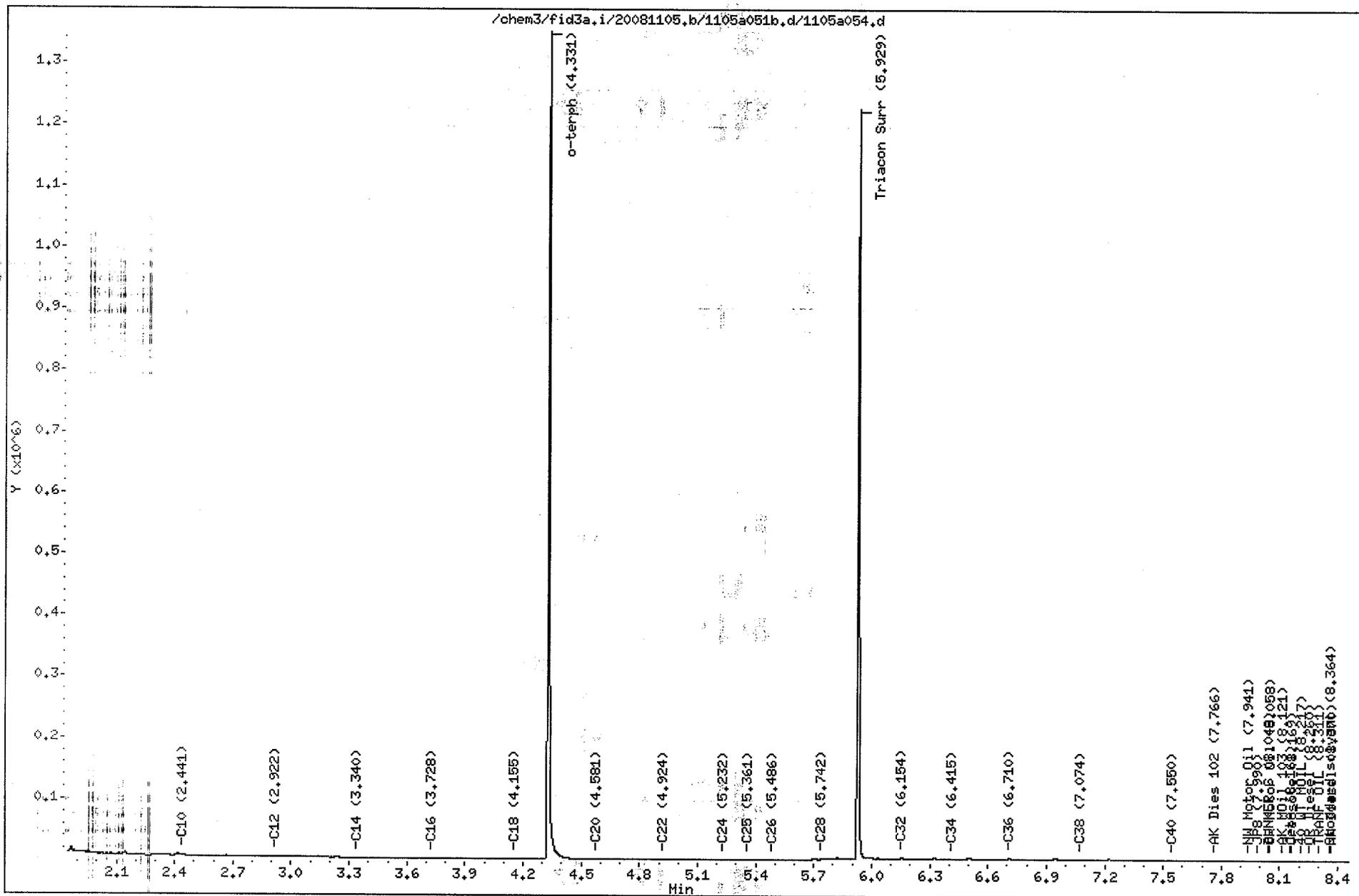
Sample Info: NY07A

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a055.d ARI ID: NY07ADUP

Method: /chem3/fid3a.i/20081105.b/1105a051b.d/ftphfid3a.mClient ID:

Instrument: fid3a.i

Injections: 06-NOV-2008 00:23

Operator: ms

Dilution Factor: 1

Report Date: 11/06/2008

Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.793	0.002	171633	162428	GAS (Tol-C12)	1428285	43
C8	1.895	0.003	10477	11779	DIESEL (C12-C24)	132770	8
C10	2.440	-0.002	5606	12382	M.OIL (C24-C38)	268403	26
C12	2.921	0.000	2334	2554	AK-102 (C10-C25)	233377	11
C14	3.340	0.001	1613	288	AK-103 (C25-C36)	209844	23
C16	3.727	0.003	1106	1269	OR.DIES (C10-C28)	272964	13
C18	4.153	-0.005	846	776	OR.MOIL (C28-C40)	294063	31
C20	4.574	-0.002	920	451	JET-A (C10-C18)	184379	11
C22	4.926	-0.005	943	850	MIN.OIL (C24-C38)	268403	21
C24	5.231	-0.001	989	1017	MSPIRIT (Tol-C12)	1428285	90
C25	5.359	-0.010	1115	945			
C26	5.486	-0.009	1252	1017			
C28	5.741	0.010	1931	2370			
C32	6.157	-0.014	5086	17678			
C34	6.415	-0.002	3135	1436			
Filter Peak	8.451	-0.003	2623	836	JP-4 (Tol-C14)	1469861	129
C36	6.711	0.002	4980	11494	CREOSOT (C8-C22)	423713	68
C38	7.079	0.001	2863	915			
C40	7.550	-0.002	3499	7012	BUNKERC (C10-C38)	499116	56

AZDIESEL (C10-C22)	190062	12
AZMOIL (C22-C32)	124555	19

Range Times: NW Diesel (2.971 - 5.282) NW Gas (1.741 - 2.971) NW M.Oil (5.282 - 7.128)  
AK102 (2.393 - 5.318) AK103 (5.318 - 6.759) Jet A (2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	837271	40.3	89.7
Triacontane	698105	40.5	89.9

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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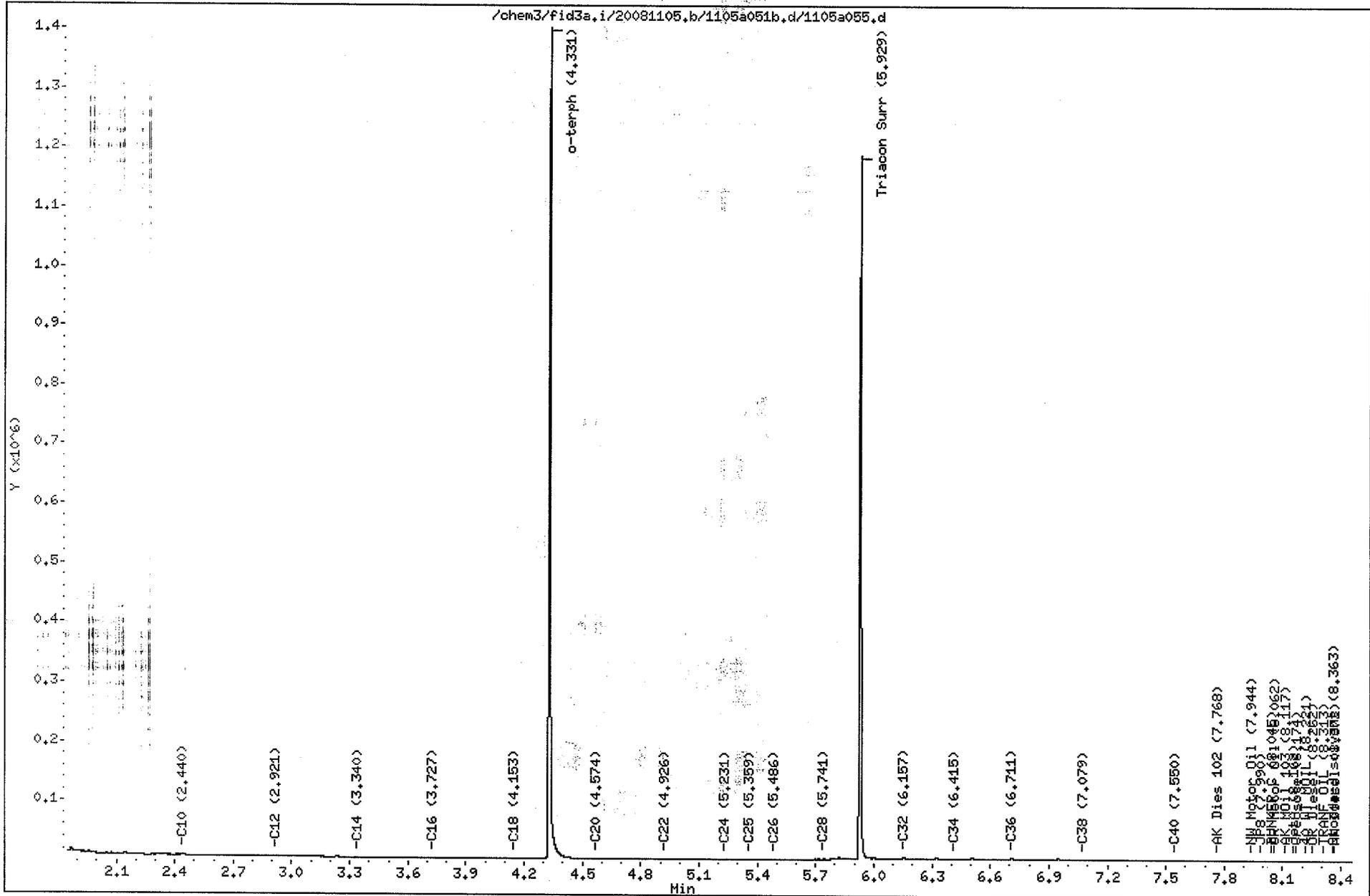
Instrument: fid3a.i

Sample Info: NY07ADUP

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.

TPH Quantitation Report

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 Method: /chem3/fid3a.i/20081105.b/1105a051b.d/ftphfid3a.m Client ID:  
 Instrument: fid3a.i Injection: 06-NOV-2008 00:37  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.794	0.003	161836	132193	GAS (Tol-C12)	1365316	41
C8	1.895	0.004	10602	12441	DIESEL (C12-C24)	136655	8
C10	2.440	-0.002	5825	13019	M.OIL (C24-C38)	273824	26
C12	2.921	0.000	2431	2534	AK-102 (C10-C25)	246677	11
C14	3.341	0.002	1682	434	AK-103 (C25-C36)	209375	23
C16	3.725	0.001	1134	653	OR.DIES (C10-C28)	288677	14
C18	4.152	-0.005	846	620	OR.MOIL (C28-C40)	305608	33
C20	4.569	-0.007	916	602	JET-A (C10-C18)	198686	12
C22	4.938	0.007	908	769	MIN.OIL (C24-C38)	273824	21
C24	5.230	-0.001	1081	1019	MSPIRIT (Tol-C12)	1365316	86
C25	5.362	-0.006	1225	1341			
C26	5.487	-0.008	1373	1258			
C28	5.733	0.002	1896	716			
C32	6.161	-0.010	5405	16369			
C34	6.418	0.000	3247	1751			
Filter Peak	8.448	-0.005	2614	1244	JP-4 (Tol-C14)	1410203	124
C36	6.718	0.009	4995	11203	CREOSOT (C8-C22)	448648	72
C38	7.077	-0.002	2838	1526			
C40	7.554	0.002	3403	4768	BUNKERC (C10-C38)	518408	58
=====							
AZDIESEL (C10-C22)			201444	13			
AZMOIL (C22-C32)			127376	20			

Range Times: NW Diesel(2.971 - 5.282) NW Gas(1.741 - 2.971) NW M.Oil(5.282 - 7.128)  
 AK102(2.393 - 5.318) AK103(5.318 - 6.759) Jet A(2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	839886	40.5	89.9
Triacontane	720373	41.7	92.8

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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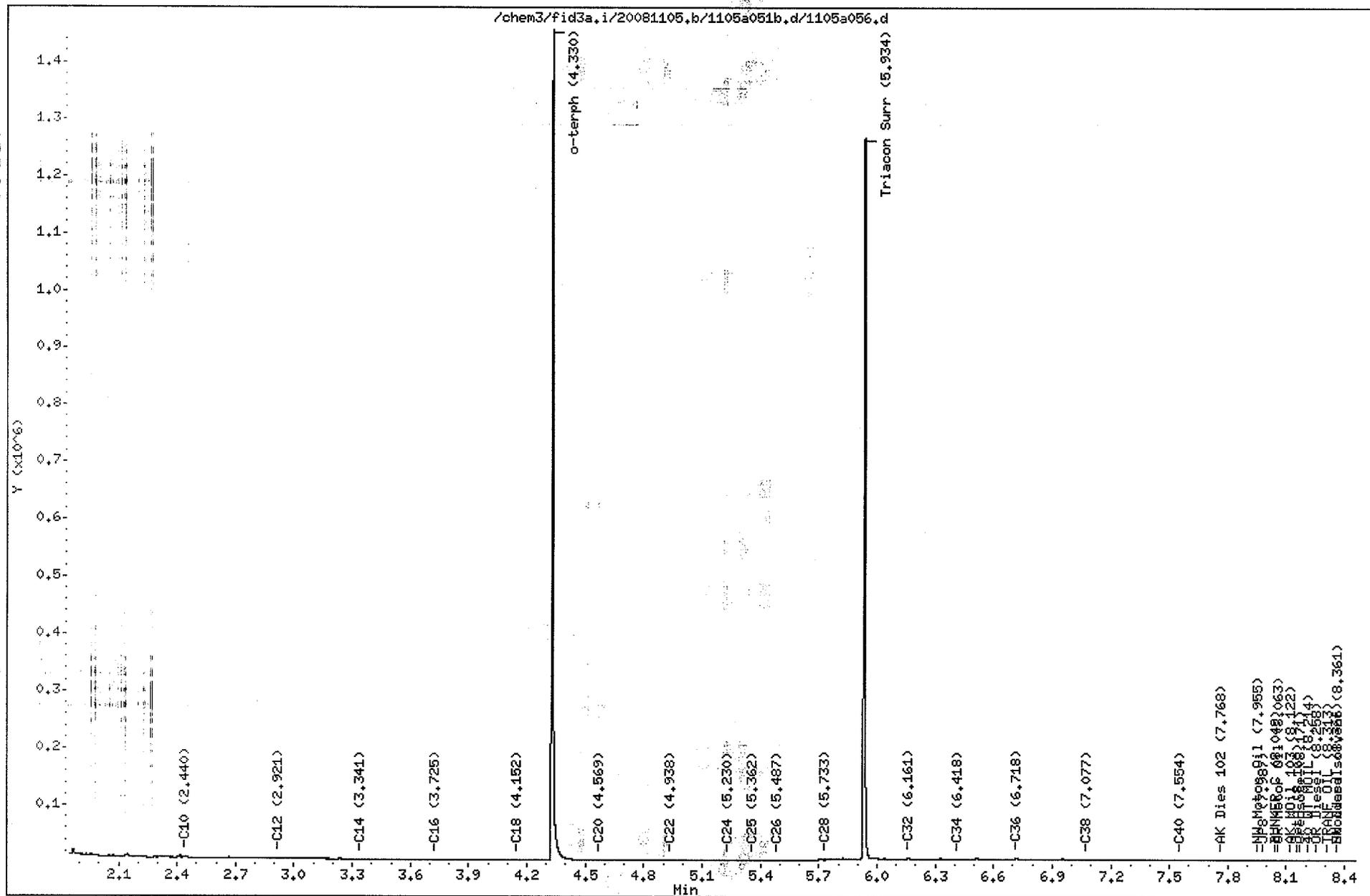
Instrument: fid3a.i

Sample Info: NY07B

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a057.d ARI ID: NY07C  
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 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.795	0.004	167837	174832	GAS (Tol-C12)	1437461	43
C8	1.894	0.003	10607	8391	DIESEL (C12-C24)	301216	18
C10	2.441	-0.001	6025	9381	M.OIL (C24-C38)	882346	84
C12	2.920	-0.001	2594	2532	AK-102 (C10-C25)	419871	19
C14	3.341	0.002	1882	598	AK-103 (C25-C36)	744273	81
C16	3.722	-0.002	1456	229	OR.DIES (C10-C28)	656099	31
C18	4.152	-0.006	1406	759	OR.MOIL (C28-C40)	762387	81
C20	4.577	0.001	2171	2016	JET-A (C10-C18)	220327	13
C22	4.926	-0.005	3343	2948	MIN.OIL (C24-C38)	882346	69
C24	5.228	-0.003	5383	1689	MSPIRIT (Tol-C12)	1437461	91
C25	5.368	0.000	6788	1727			
C26	5.495	0.000	8044	1281			
C28	5.730	-0.001	11085	6553			
C32	6.169	-0.001	9980	3183			
C34	6.422	0.005	8379	2146			
Filter Peak	8.450	-0.004	3536	1748	JP-4 (Tol-C14)	1482627	130
C36	6.711	0.002	9484	17858	CREOSOT (C8-C22)	544043	87
C38	7.079	0.001	5409	2127			
C40	7.549	-0.003	5909	3116	BUNKERC (C10-C38)	1292791	145
=====							
AZDIESEL (C10-C22)			305114	19			
AZMOIL (C22-C32)			578109	90			

Range Times: NW Diesel (2.971 - 5.282) NW Gas (1.741 - 2.971) NW M.Oil (5.282 - 7.128)  
 AK102 (2.393 - 5.318) AK103 (5.318 - 6.759) Jet A (2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	869380	41.9	93.1
Triacontane	702822	40.7	90.5

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a058.d ARI ID: NY07D  
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 Instrument: fid3a.i Injection: 06-NOV-2008 01:06  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.796	0.006	153557	184828	GAS (Tol-C12)	1251742	38
C8	1.895	0.003	10109	8189	DIESEL (C12-C24)	156821	9
C10	2.442	-0.001	5625	12270	M.OIL (C24-C38)	312698	30
C12	2.920	-0.001	2387	3450	AK-102 (C10-C25)	262008	12
C14	3.338	-0.001	1665	429	AK-103 (C25-C36)	238511	26
C16	3.726	0.002	1184	1376	OR.DIES (C10-C28)	313919	15
C18	4.163	0.006	817	497	OR.MOIL (C28-C40)	342392	37
C20	4.573	-0.003	988	527	JET-A (C10-C18)	195325	11
C22	4.937	0.007	1009	643	MIN.OIL (C24-C38)	312698	24
C24	5.227	-0.004	1234	828	MSPiRIT (Tol-C12)	1251742	79
C25	5.370	0.002	1409	223			
C26	5.506	0.011	1679	1122			
C28	5.728	-0.003	2243	1240			
C32	6.181	0.011	3863	1525			
C34	6.414	-0.004	3623	2928			
Filter Peak	8.452	-0.002	2718	809	JP-4 (Tol-C14)	1295895	114
C36	6.707	-0.002	5659	12973	CREOSOT (C8-C22)	444550	71
C38	7.078	0.000	3100	923			
C40	7.550	-0.003	4009	7192	BUNKERC (C10-C38)	571598	64

AZDIESEL (C10-C22)	214930	13
AZMOIL (C22-C32)	146132	23

Range Times: NW Diesel (2.971 - 5.282) NW Gas (1.741 - 2.971) NW M.Oil (5.282 - 7.128)  
 AK102 (2.393 - 5.318) AK103 (5.318 - 6.759) Jet A (2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	847711	40.8	90.8
Triacontane	677897	39.3	87.3

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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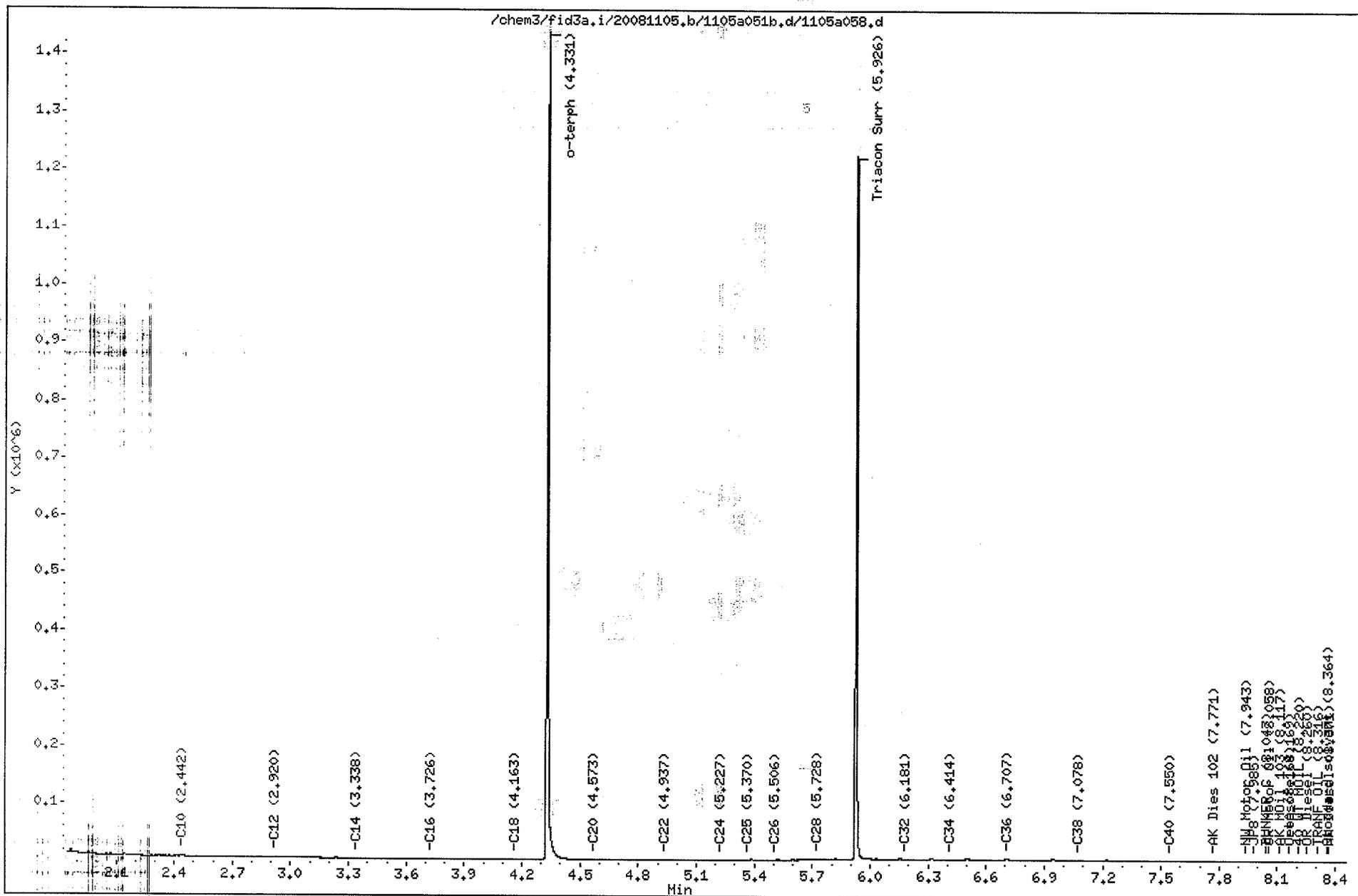
Sample Info: NY07D

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

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 Instrument: fid3a.i Injection: 06-NOV-2008 01:20  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.795	0.004	158532	209413	GAS (Tol-C12)	1300254	39
C8	1.895	0.004	10685	8162	DIESEL (C12-C24)	285513	17
C10	2.441	-0.001	6069	12963	M.OIL (C24-C38)	767606	73
C12	2.921	-0.001	3064	3722	AK-102 (C10-C25)	427063	20
C14	3.343	0.004	2533	4793	AK-103 (C25-C36)	651333	71
C16	3.724	0.000	1838	1847	OR.DIES (C10-C28)	601515	28
C18	4.154	-0.004	1799	2512	OR.MOIL (C28-C40)	700322	75
C20	4.576	0.000	2417	2002	JET-A (C10-C18)	268198	16
C22	4.928	-0.003	3219	3348	MIN.OIL (C24-C38)	767606	60
C24	5.225	-0.007	5332	5104	MSPRIT (Tol-C12)	1300254	82
C25	5.370	0.001	4558	908			
C26	5.506	0.011	5740	4353			
C28	5.729	-0.002	7694	2296			
C32	6.167	-0.003	9633	6015			
C34	6.406	-0.011	10353	20765			
Filter Peak	8.451	-0.003	3425	1219	JP-4 (Tol-C14)	1359348	120
C36	6.706	-0.004	8851	15235	CREOSOT (C8-C22)	580301	93
C38	7.080	0.001	4843	1996			
C40	7.541	-0.012	5790	10681	BUNKERC (C10-C38)	1186994	133

AZDIESEL (C10-C22)	329349	21
AZMOIL (C22-C32)	472035	73

Range Times: NW Diesel(2.971 - 5.282) NW Gas(1.741 - 2.971) NW M.Oil(5.282 - 7.128)  
 AK102(2.393 - 5.318) AK103(5.318 - 6.759) Jet A(2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	850695	41.0	91.1
Triacontane	712104	41.3	91.7

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 06-NOV-2008 01:20

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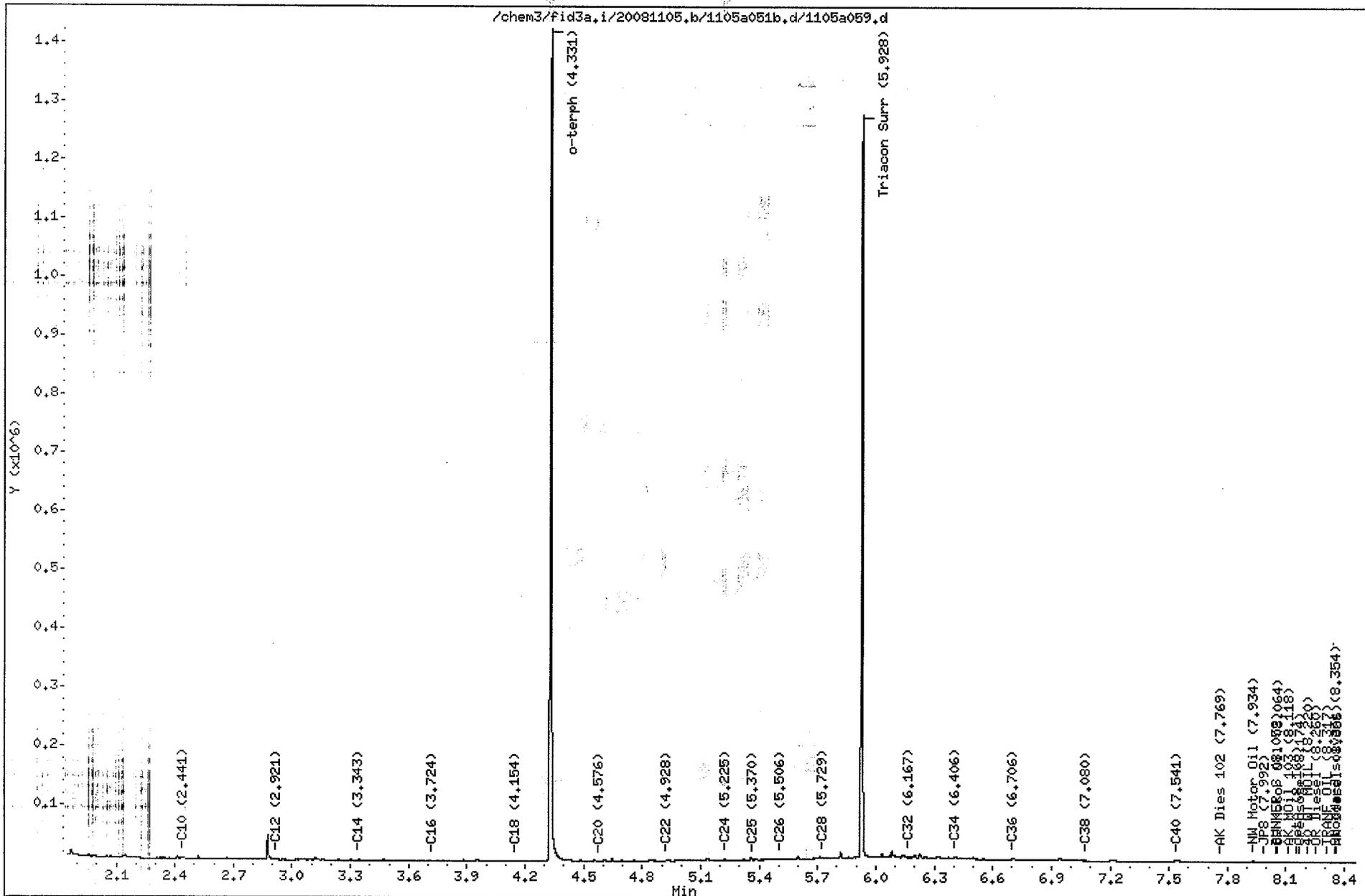
Instrument: fid3a.i

Sample Info: NY07E

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
 -TPH Quantitation Report

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 Instrument: fid3a.i Injection: 06-NOV-2008 01:35  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.794	0.004	155168	104176	GAS (Tol-C12)	1316451	40
C8	1.894	0.003	10413	8147	DIESEL (C12-C24)	531233	31
C10	2.441	-0.001	6026	12646	M.OIL (C24-C38)	2709553	258
C12	2.920	-0.001	2905	2919	AK-102 (C10-C25)	665171	31
C14	3.344	0.006	2487	4151	AK-103 (C25-C36)	2302793	252
C16	3.724	0.000	2117	1959	OR.DIES (C10-C28)	1261758	60
C18	4.154	-0.003	2564	3377	OR.MOIL (C28-C40)	2460843	263
C20	4.572	-0.004	4403	4261	JET-A (C10-C18)	258339	15
C22	4.926	-0.005	7548	7771	MIN.OIL (C24-C38)	2709553	211
C24	5.234	0.003	12355	2686	MSPRIT (Tol-C12)	1316451	83
C25	5.368	0.000	15784	4051			
C26	5.496	0.001	19136	4914			
C28	5.733	0.003	29289	16214			
C32	6.161	-0.009	33486	23275			
C34	6.418	0.000	25336	6053			
Filter Peak	8.453	-0.001	7156	2270	JP-4 (Tol-C14)	1370216	121
C36	6.711	0.002	22530	15903	CREOSOT (C8-C22)	677567	109
C38	7.076	-0.002	15894	5340			
C40	7.558	0.005	12124	8571	BUNKERC (C10-C38)	3352863	375

AZDIESEL (C10-C22)	433843	27
AZMOIL (C22-C32)	1730430	269

Range Times: NW Diesel(2.971 - 5.282) NW Gas(1.741 - 2.971) NW M.Oil(5.282 - 7.128)  
 AK102(2.393 - 5.318) AK103(5.318 - 6.759) Jet A(2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	815016	39.3	87.3
Triacontane	619648	35.9	79.8

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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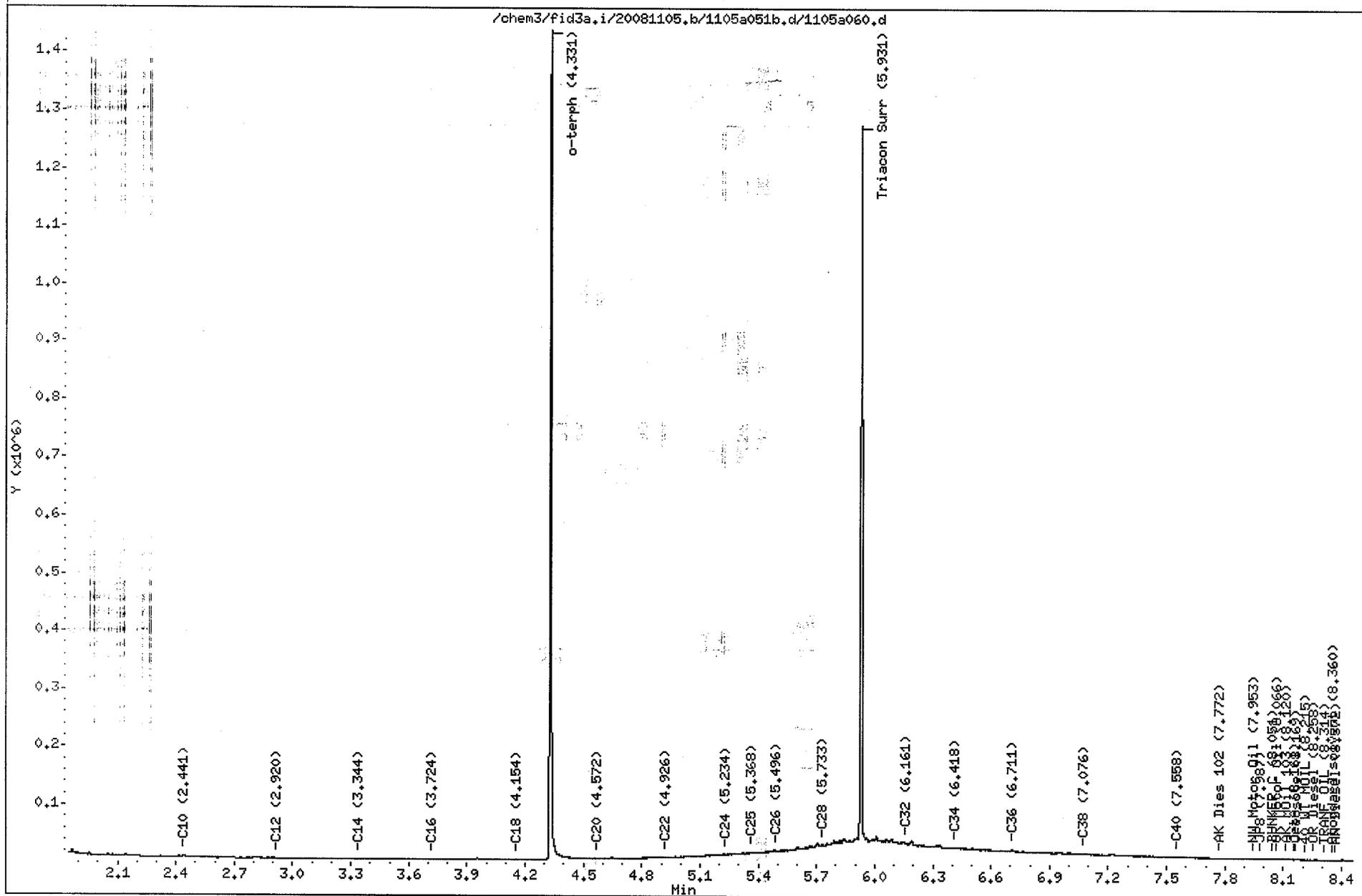
Instrument: fid3a.i

Sample Info: NY07G

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

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 Operator: ms Dilution Factor: 5  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.793	0.003	44262	44527	GAS (Tol-C12)	547741	17
C8	1.892	0.001	9619	6838	DIESEL (C12-C24)	819307	48
C10	2.440	-0.002	5146	11452	M.OIL (C24-C38)	4285970	407
C12	2.921	0.000	2830	2076	AK-102 (C10-C25)	985599	46
C14	3.341	0.002	2680	3660	AK-103 (C25-C36)	3746891	409
C16	3.726	0.002	2437	1883	OR.DIES (C10-C28)	2251350	106
C18	4.157	-0.001	3011	1754	OR.MOIL (C28-C40)	3387846	362
C20	4.573	-0.003	5683	5547	JET-A (C10-C18)	272875	16
C22	4.932	0.002	11531	5726	MIN.OIL (C24-C38)	4285970	334
C24	5.236	0.004	26743	17132	MSPRIT (Tol-C12)	547741	35
C25	5.367	-0.001	35807	17982			
C26	5.491	-0.004	43879	25121			
C28	5.735	0.004	56487	8940			
C32	6.166	-0.004	45200	8065			
C34	6.419	0.001	36799	5805			
Filter Peak	8.451	-0.002	9402	3513	JP-4 (Tol-C14)	603883	53
C36	6.707	-0.002	29943	28045	CREOSOT (C8-C22)	759311	122
C38	7.077	-0.001	19532	2712			
C40	7.549	-0.003	14046	7177	BUNKERC (C10-C38)	5209822	583

AZDIESEL (C10-C22) 540125 34  
 AZMOIL (C22-C32) 3103745 482

Range Times: NW Diesel (2.971 - 5.282) NW Gas (1.741 - 2.971) NW M.Oil (5.282 - 7.128)  
 AK102 (2.393 - 5.318) AK103 (5.318 - 6.759) Jet A (2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	149922	7.2	80.3
Triacotane	118001	6.8	76.0

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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Date: 06-NOV-2008 01:49

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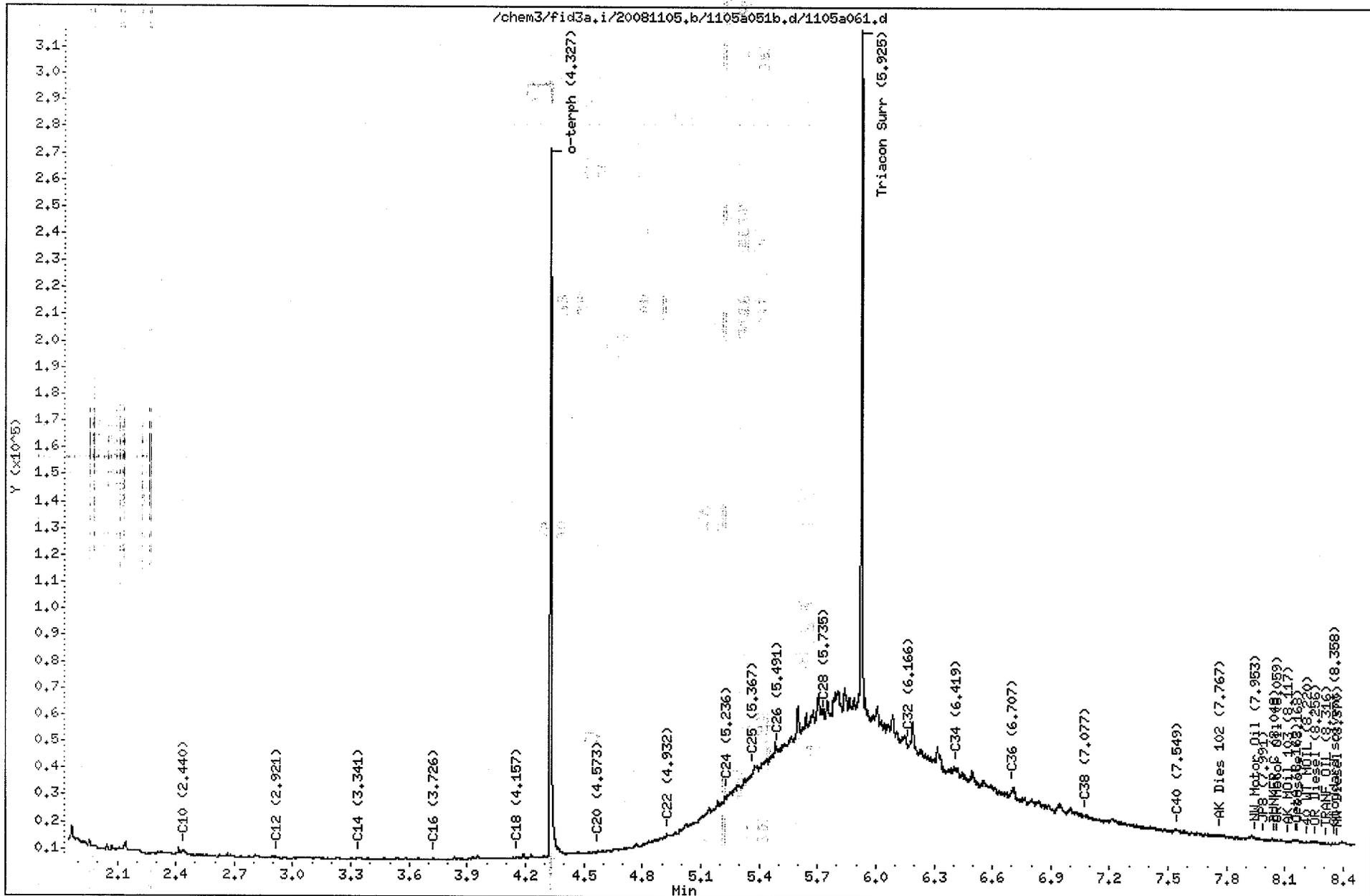
Instrument: fid3a.i

Sample Info: NY07H,5

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a062.d ARI ID: NY07J  
 Method: /chem3/fid3a.i/20081105.b/1105a051b.d/fid3a.m Client ID:  
 Instrument: fid3a.i Injection: 06-NOV-2008 02:04  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.794	0.003	167644	180013	GAS (Tol-C12)	1273150	39
C8	1.894	0.003	9056	6285	DIESEL (C12-C24)	287290	17
C10	2.442	0.000	4751	10952	M.OIL (C24-C38)	1281806	122
C12	2.920	-0.001	2250	2634	AK-102 (C10-C25)	385046	18
C14	3.338	-0.001	1608	732	AK-103 (C25-C36)	1061160	116
C16	3.725	0.001	1351	1215	OR.DIES (C10-C28)	670754	32
C18	4.152	-0.005	1163	874	OR.MOIL (C28-C40)	1203926	129
C20	4.575	-0.001	1904	2061	JET-A (C10-C18)	187363	11
C22	4.927	-0.003	3003	2220	MIN.OIL (C24-C38)	1281806	100
C24	5.232	0.001	5881	820	MSPIRIT (Tol-C12)	1273150	80
C25	5.372	0.004	7946	3850			
C26	5.494	-0.001	9173	4516			
C28	5.730	0.000	12909	8873			
C32	6.166	-0.004	13937	8598			
C34	6.420	0.003	12807	7549			
Filter Peak	8.451	-0.003	6035	3680	JP-4 (Tol-C14)	1315572	116
C36	6.708	-0.001	12539	13838	CREOSOT (C8-C22)	443937	71
C38	7.078	0.000	9358	4073			
C40	7.558	0.006	7855	7507	BUNKERC (C10-C38)	1655921	185

AZDIESEL (C10-C22) 243722 15  
 AZMOIL (C22-C32) 789594 123

Range Times: NW Diesel(2.971 - 5.282) NW Gas(1.741 - 2.971) NW M.Oil(5.282 - 7.128)  
 AK102(2.393 - 5.318) AK103(5.318 - 6.759) Jet A(2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	844868	40.7	90.5
Triacontane	703980	40.8	90.7

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a062.d

Date: 06-NOV-2008 02:04

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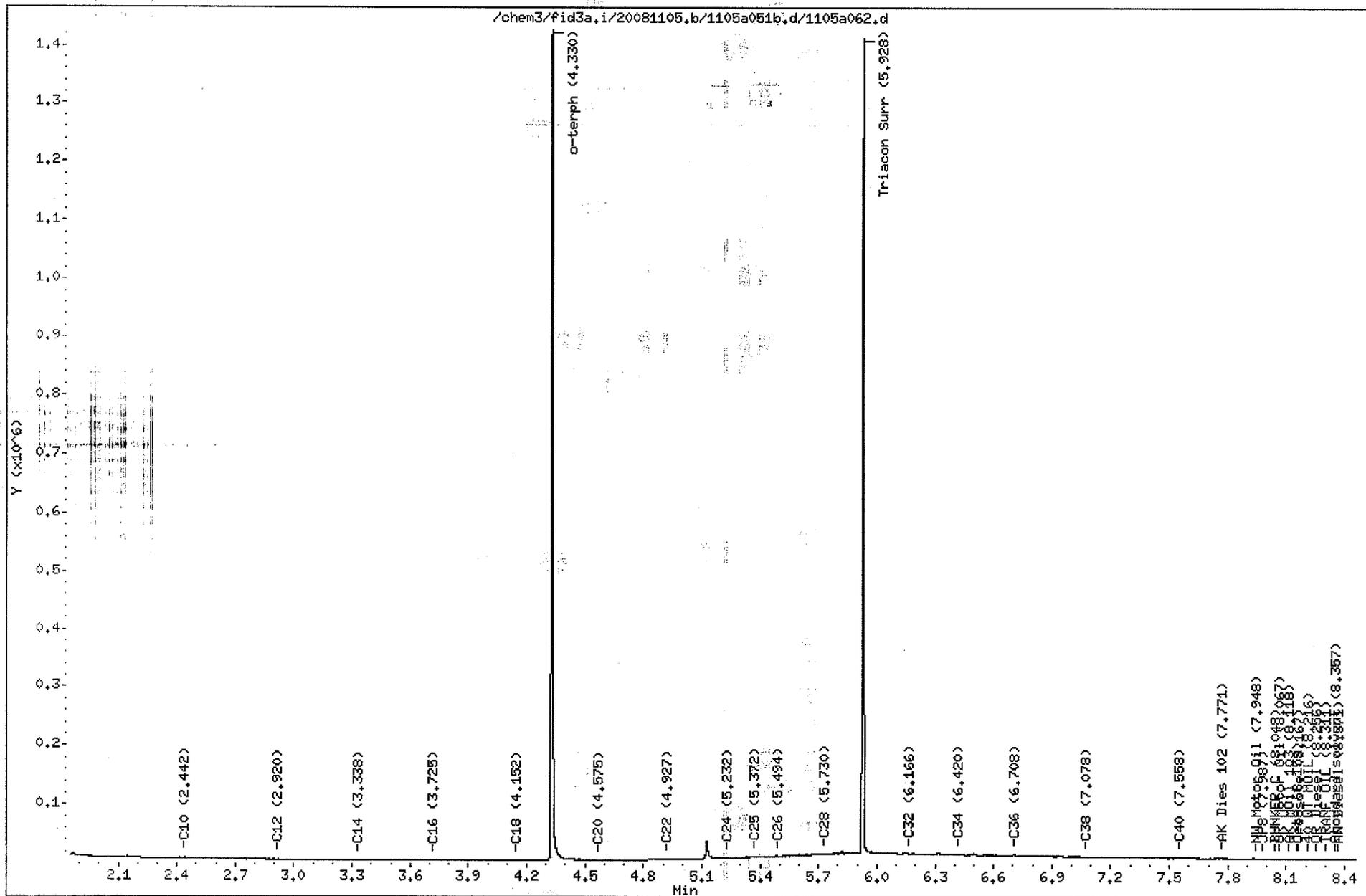
Instrument: fid3a.i

Sample Info: NY07J

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
 TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a063.d ARI ID: NY07K  
 Method: /chem3/fid3a.i/20081105.b/1105a051b.d/ftphfid3a.m Method ID:  
 Instrument: fid3a.i Injection: 06-NOV-2008 02:18  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.793	0.002	167029	187055	GAS (Tol-C12)	1379544	42
C8	1.892	0.001	9091	6712	DIESEL (C12-C24)	186595	11
C10	2.442	-0.001	4808	11126	M.OIL (C24-C38)	686245	65
C12	2.921	-0.001	2260	2397	AK-102 (C10-C25)	283879	13
C14	3.339	0.000	1552	309	AK-103 (C25-C36)	564160	62
C16	3.723	-0.001	1176	1032	OR.DIES (C10-C28)	409111	19
C18	4.154	-0.004	1024	1011	OR.MOIL (C28-C40)	681352	73
C20	4.578	0.002	1389	619	JET-A (C10-C18)	179715	10
C22	4.932	0.001	1939	1905	MIN.OIL (C24-C38)	686245	54
C24	5.228	-0.003	2981	2965	MSPRIT (Tol-C12)	1379544	87
C25	5.360	-0.009	4655	4064			
C26	5.498	0.003	3859	768			
C28	5.729	-0.002	5498	767			
C32	6.171	0.000	7616	1516			
C34	6.412	-0.006	12711	15309			
Filter Peak	8.450	-0.004	4172	2140	JP-4 (Tol-C14)	1416819	125
C36	6.709	-0.001	10560	17740	CREOSOT (C8-C22)	425194	68
C38	7.086	0.008	5079	3327			
C40	7.546	-0.007	6868	14710	BUNKERC (C10-C38)	965743	108
=====							
AZDIESEL (C10-C22)			214912	13			
AZMOIL (C22-C32)			378655	59			
=====							

Range Times: NW Diesel(2.971 - 5.282) NW Gas(1.741 - 2.971) NW M.Oil(5.282 - 7.128)  
 AK102(2.393 - 5.318) AK103(5.318 - 6.759) Jet A(2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	853456	41.1	91.4
Triacontane	651355	37.7	83.9

*Nov 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 06-NOV-2008 02:18

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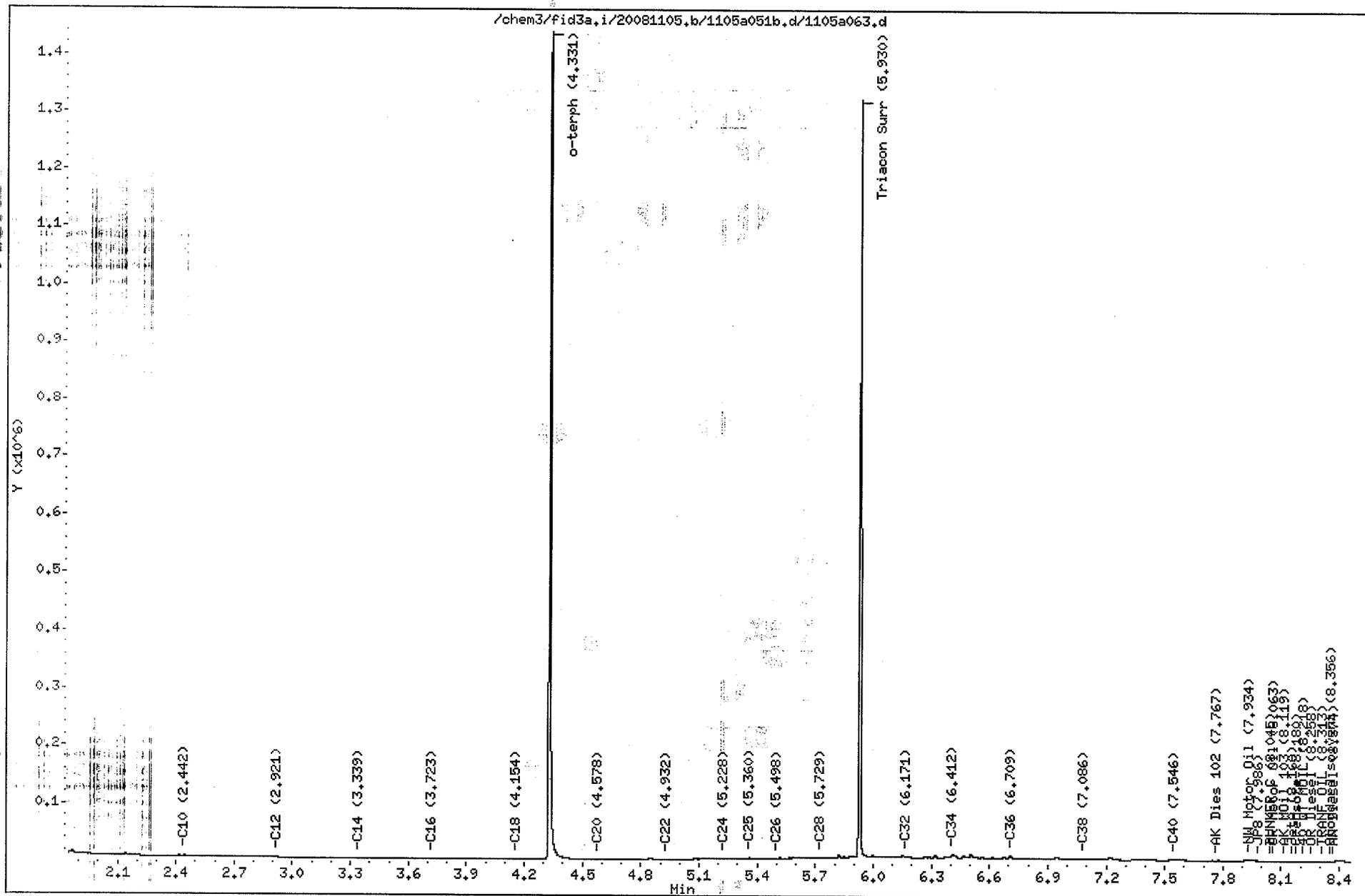
Instrument: fid3a.i

Sample Info: NY07K

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a064.d ARI ID: NY07L  
 Method: /chem3/fid3a.i/20081105.b/1105a051b.d/ftphfid3a.m Coefficient ID:  
 Instrument: fid3a.i Injection: 06-NOV-2008 02:33  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/06/2008  
 Macro: FID:3A110608

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.788	-0.003	161232	35206	GAS (Tol-C12)	1360193	41
C8	1.894	0.002	9209	14834	DIESEL (C12-C24)	151848	9
C10	2.441	-0.002	4927	10951	M.OIL (C24-C38)	388597	37
C12	2.920	-0.001	2250	2741	AK-102 (C10-C25)	244850	11
C14	3.340	0.001	1528	517	AK-103 (C25-C36)	299810	33
C16	3.727	0.002	1087	1308	OR.DIES (C10-C28)	312011	15
C18	4.159	0.002	845	99	OR.MOIL (C28-C40)	418738	45
C20	4.580	0.004	1021	161	JET-A (C10-C18)	174217	10
C22	4.935	0.004	1160	1069	MIN.OIL (C24-C38)	388597	30
C24	5.227	-0.004	1585	1627	MSPRIT (Tol-C12)	1360193	86
C25	5.358	-0.010	1872	1878			
C26	5.503	0.008	2078	1785			
C28	5.730	-0.001	3347	3659			
C32	6.173	0.002	4406	3503			
C34	6.417	-0.001	4322	4297			
Filter Peak	8.452	-0.002	3242	1740	JP-4 (Tol-C14)	1396503	123
C36	6.716	0.007	4349	4163	CREOSOT (C8-C22)	398295	64
C38	7.083	0.005	3736	1781			
C40	7.555	0.002	3889	542	BUNKERC (C10-C38)	632307	71

AZDIESEL (C10-C22)	194236	12
AZMOIL (C22-C32)	196525	31

Range Times: NW Diesel(2.971 - 5.282) NW Gas(1.741 - 2.971) NW M.Oil(5.282 - 7.128)  
 AK102(2.393 - 5.318) AK103(5.318 - 6.759) Jet A(2.393 - 4.208)

Surrogate	Area	Amount	%Rec
o-Terphenyl	866108	41.7	92.7
Triacontane	689155	39.9	88.7

*ms 11/6/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	17256.5	04-NOV-2008
Gas	33066.5	06-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	10521.7	04-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081105.b/1105a051b.d/1105a064.d

Date : 06-NOV-2008 02:33

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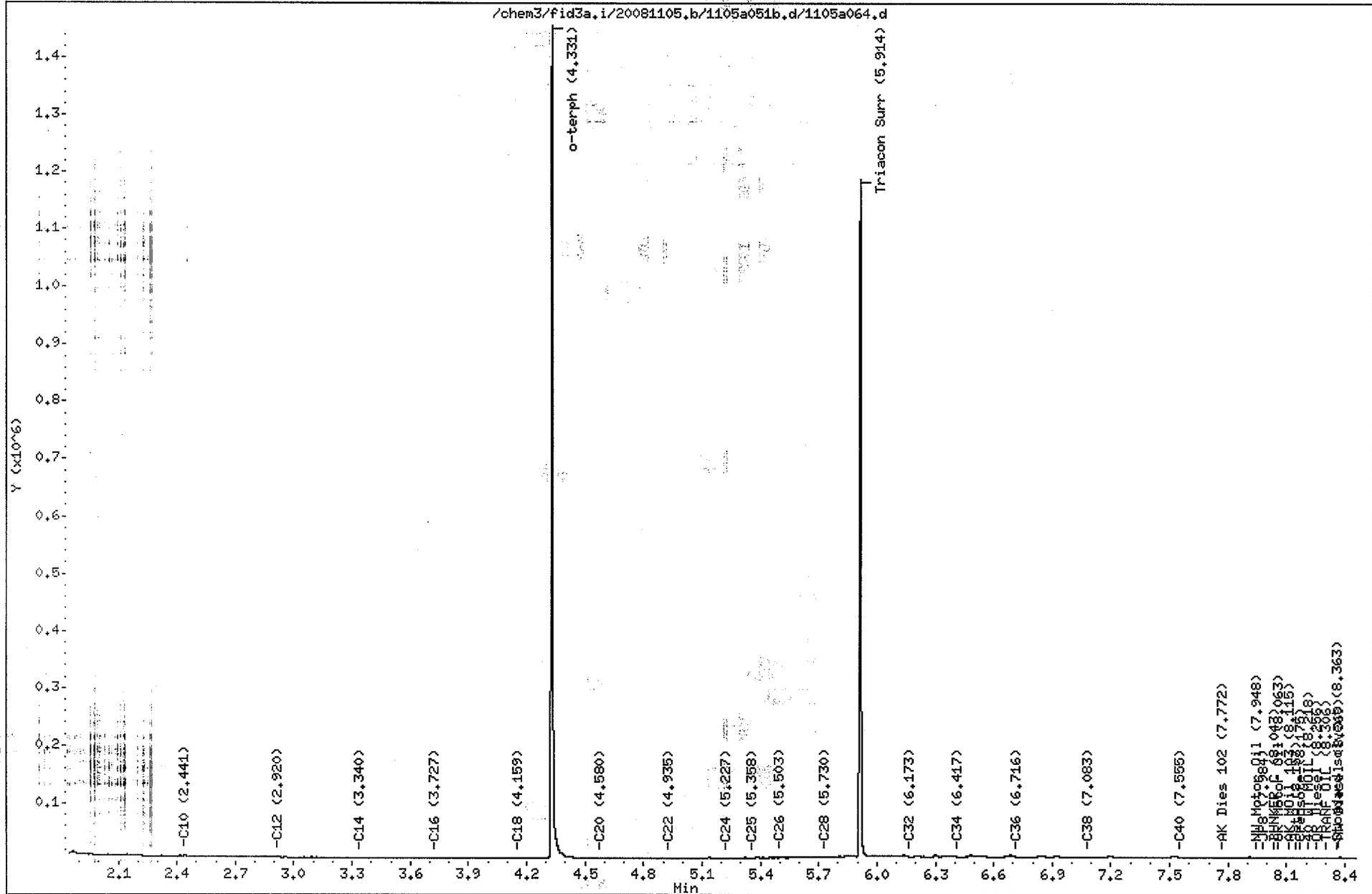
Instrument: fid3a.i

Sample Info: NY07L

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

<u>Client ID</u>	<u>O-TER TOT OUT</u>	
110508MB	86.0%	0
TPD6-8-081104	86.5%	0
TPD6-8-081104 DP	89.7%	0
TDP7-8-081104	89.9%	0
TDP8-8-081104	93.1%	0
TDP9-8-081104	90.8%	0
TDP10-8-081104	91.1%	0
TDP11-9-081104	87.3%	0
TDP12-7-081104	80.2%	0
TDP13-7-081104	90.5%	0
TDP14-4-081104	91.4%	0
TDP15-4-081104	92.8%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(68-122)

(50-150)

Prep Method: SW3550B  
Log Number Range: 08-30002 to 08-30013

**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/04/08

ARI Job: NY07  
Project: SEATTLE/PHASEII  
025173.070

ARI ID	Client ID	Sample Amt	Final Vol	Basis	Prep Date
08-30002-110508MB	Method Blank	10.0 g	5.00 mL	-	11/05/08
08-30002-NY07A	TPD6-8-081104	7.48 g	5.00 mL	D	11/05/08
08-30002-NY07ADP	TPD6-8-081104	7.44 g	5.00 mL	D	11/05/08
08-30003-NY07B	TDP7-8-081104	8.00 g	5.00 mL	D	11/05/08
08-30004-NY07C	TDP8-8-081104	8.13 g	5.00 mL	D	11/05/08
08-30005-NY07D	TDP9-8-081104	8.34 g	5.00 mL	D	11/05/08
08-30006-NY07E	TDP10-8-081104	8.78 g	5.00 mL	D	11/05/08
08-30008-NY07G	TDP11-9-081104	9.16 g	5.00 mL	D	11/05/08
08-30009-NY07H	TDP12-7-081104	7.51 g	5.00 mL	D	11/05/08
08-30011-NY07J	TDP13-7-081104	8.10 g	5.00 mL	D	11/05/08
08-30012-NY07K	TDP14-4-081104	6.67 g	5.00 mL	D	11/05/08
08-30013-NY07L	TDP15-4-081104	7.74 g	5.00 mL	D	11/05/08

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 1

Matrix: Water

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Data Release Authorized: 

Reported: 11/11/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-110508 08-30014	Method Blank	11/05/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	78.3%
NY07M 08-30014	TDP8-GW-081104 HC ID: ---	11/05/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	82.3%
NY07N 08-30015	TDP7-GW-081104 HC ID: ---	11/05/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	70.4%
NY07O 08-30016	TDP11-GW-081104 HC ID: ---	11/05/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	68.4%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a034.d ARI ID: NX93MBW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 21:03  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.790	-0.005	44905	63382	GAS (Tol-C12)	520344	22
C8	1.899	0.007	17976	38555	DIESEL (C12-C24)	251277	15
C10	2.437	-0.008	6611	14359	M.OIL (C24-C38)	568432	45
C12	2.911	-0.002	7951	6909	AK-102 (C10-C25)	382286	18
C14	3.328	0.003	11676	13689	AK-103 (C25-C36)	435475	48
C16	3.708	0.003	10185	13448	OR.DIES (C10-C28)	465532	22
C18	4.129	-0.001	5355	4730	OR.MOIL (C28-C40)	636502	68
C20	4.556	0.008	1684	500	JET-A (C10-C18)	285566	17
C22	4.901	-0.002	1564	920	MIN.OIL (C24-C38)	568432	44
C24	5.208	0.000	2654	2634	MSPiRIT (Tol-C12)	520344	33
C25	5.343	-0.003	2053	1714			
C26	5.479	0.004	2543	2606			
C28	5.722	0.007	12042	12511			
C32	6.149	-0.006	7244	11614			
C34	6.393	-0.004	7071	4515			
Filter Peak	8.443	-0.004	5989	3346	JP-4 (Tol-C14)	581445	51
C36	6.687	0.007	7716	8629	CREOSOT (C8-C22)	668214	107
C38	7.032	0.002	6467	1936			
C40	7.479	-0.008	6352	1644	BUNKERC (C10-C38)	945940	106

AZDIESEL (C10-C22)	313996	20
AZMOIL (C22-C32)	266335	41

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	731418	35.2	78.3
Triacontane	660083	33.8	75.2

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 07-NOV-2008 21:03

Client ID:

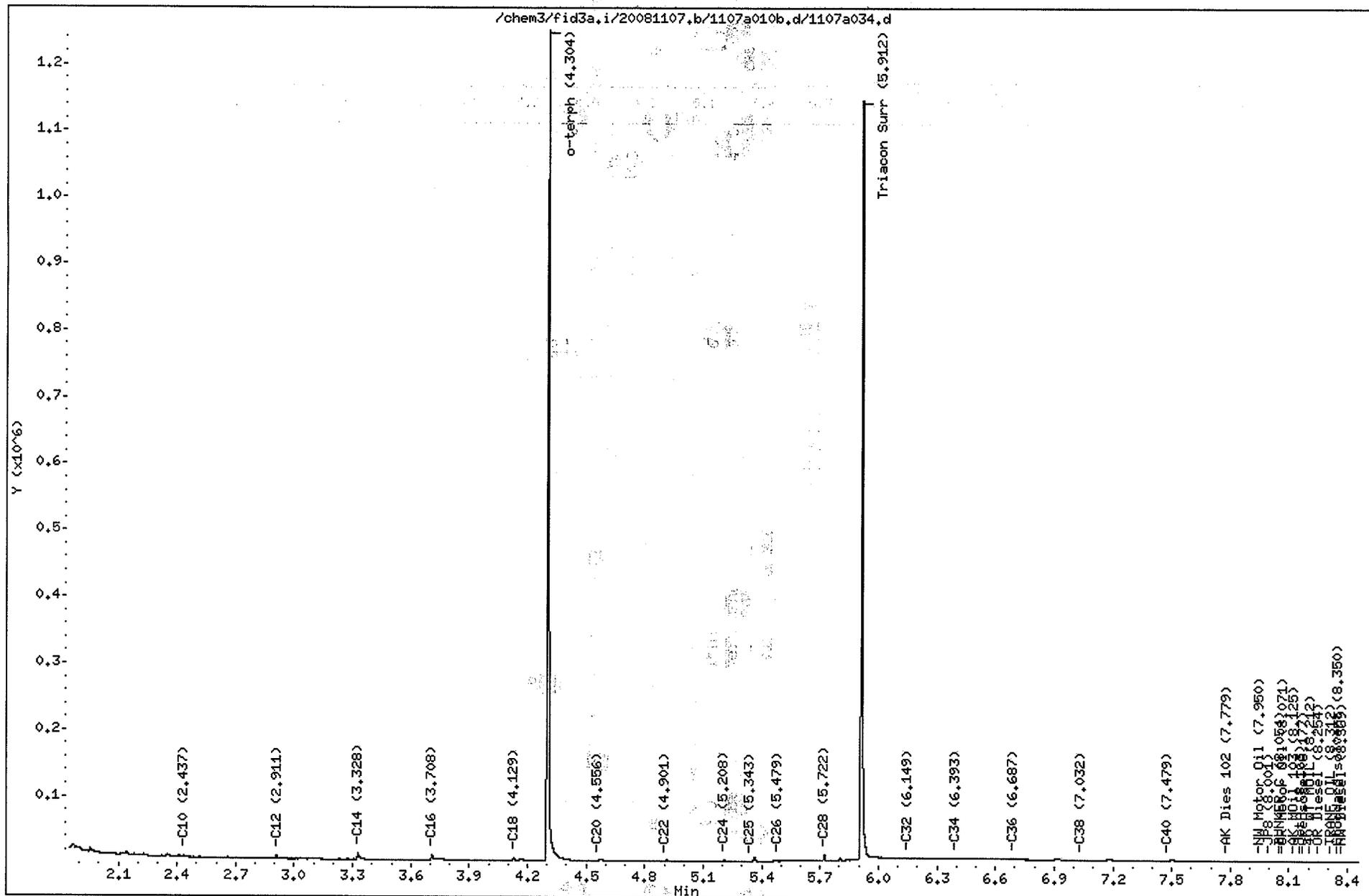
Instrument: fid3a.i

Sample Info: NX93MBW1

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a038.d ARI ID: NY07M  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 22:03  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.791	-0.004	60018	149444	GAS (Tol-C12)	669501	28
C8	1.895	0.003	18598	3704	DIESEL (C12-C24)	861239	51
C10	2.439	-0.006	7515	16255	M.OIL (C24-C38)	914080	72
C12	2.911	-0.001	4919	5042	AK-102 (C10-C25)	1038202	48
C14	3.328	0.003	5801	7276	AK-103 (C25-C36)	744711	81
C16	3.705	0.001	8212	7017	OR.DIES (C10-C28)	1277149	60
C18	4.128	-0.002	9360	11535	OR.MOIL (C28-C40)	823263	88
C20	4.547	-0.001	9030	10706	JET-A (C10-C18)	567964	33
C22	4.901	-0.001	8489	9416	MIN.OIL (C24-C38)	914080	71
C24	5.204	-0.004	8952	10095	MSPIRIT (Tol-C12)	669501	42
C25	5.345	0.000	8500	1184			
C26	5.477	0.002	8420	5798			
C28	5.716	0.001	8657	2238			
C32	6.150	-0.006	10940	12688			
C34	6.392	-0.005	11092	22925			
Filter Peak	8.448	0.001	5971	2860	JP-4 (Tol-C14)	762418	67
C36	6.679	0.000	8393	2011	CREOSOT (C8-C22)	1238928	199
C38	7.025	-0.005	7322	5107			
C40	7.478	-0.009	6639	3179	BUNKERC (C10-C38)	1935973	217
=====							
AZDIESEL (C10-C22)			835954	52			
AZMOIL (C22-C32)			614252	95			

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	768133	37.0	82.3
Triacontane	700937	35.9	79.9

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a038.d

Date : 07-NOV-2008 22:03

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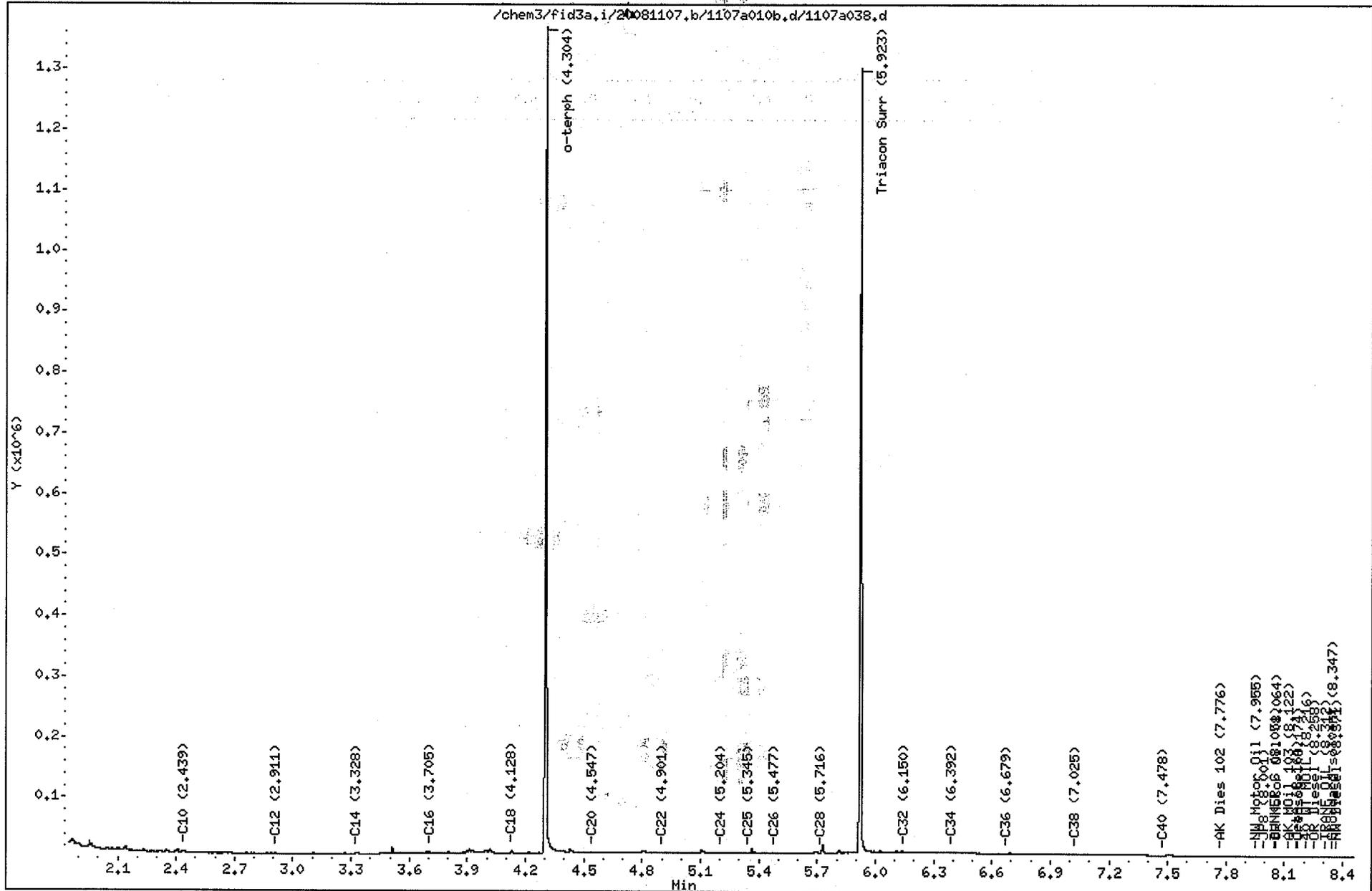
Instrument: fid3a.i

Sample Info: NY07H

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a039.d ARI ID: NY07N  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 22:18  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.801	0.006	42094	82662	GAS (Tol-C12)	622949	26
C8	1.899	0.007	17974	26821	DIESEL (C12-C24)	998009	59
C10	2.437	-0.008	7318	11815	M.OIL (C24-C38)	1010531	80
C12	2.909	-0.003	3911	2548	AK-102 (C10-C25)	1177667	55
C14	3.319	-0.006	4825	1144	AK-103 (C25-C36)	837528	92
C16	3.702	-0.003	6979	3169	OR.DIES (C10-C28)	1466153	69
C18	4.131	0.001	7881	2598	OR.MOIL (C28-C40)	885194	94
C20	4.547	0.000	8942	6026	JET-A (C10-C18)	607684	35
C22	4.898	-0.005	9236	7661	MIN.OIL (C24-C38)	1010531	79
C24	5.201	-0.006	12640	13692	MSPRIT (Tol-C12)	622949	39
C25	5.348	0.003	10065	3393			
C26	5.475	0.000	9788	6217			
C28	5.726	0.011	17729	24125			
C32	6.163	0.007	11018	1756			
C34	6.402	0.005	12558	14424			
Filter Peak	8.446	-0.002	6100	2438	JP-4 (Tol-C14)	733985	65
C36	6.684	0.004	10731	9466	CREOSOT (C8-C22)	1322544	212
C38	7.030	0.000	7666	5042			
C40	7.493	0.006	7560	8968	BUNKERC (C10-C38)	2164910	242
AZDIESEL (C10-C22)			947858	59			
AZMOIL (C22-C32)			722376	112			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
 AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	657580	31.7	70.4
Triacontane	602635	30.9	68.7

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 07-NOV-2008 22:18

Client ID:

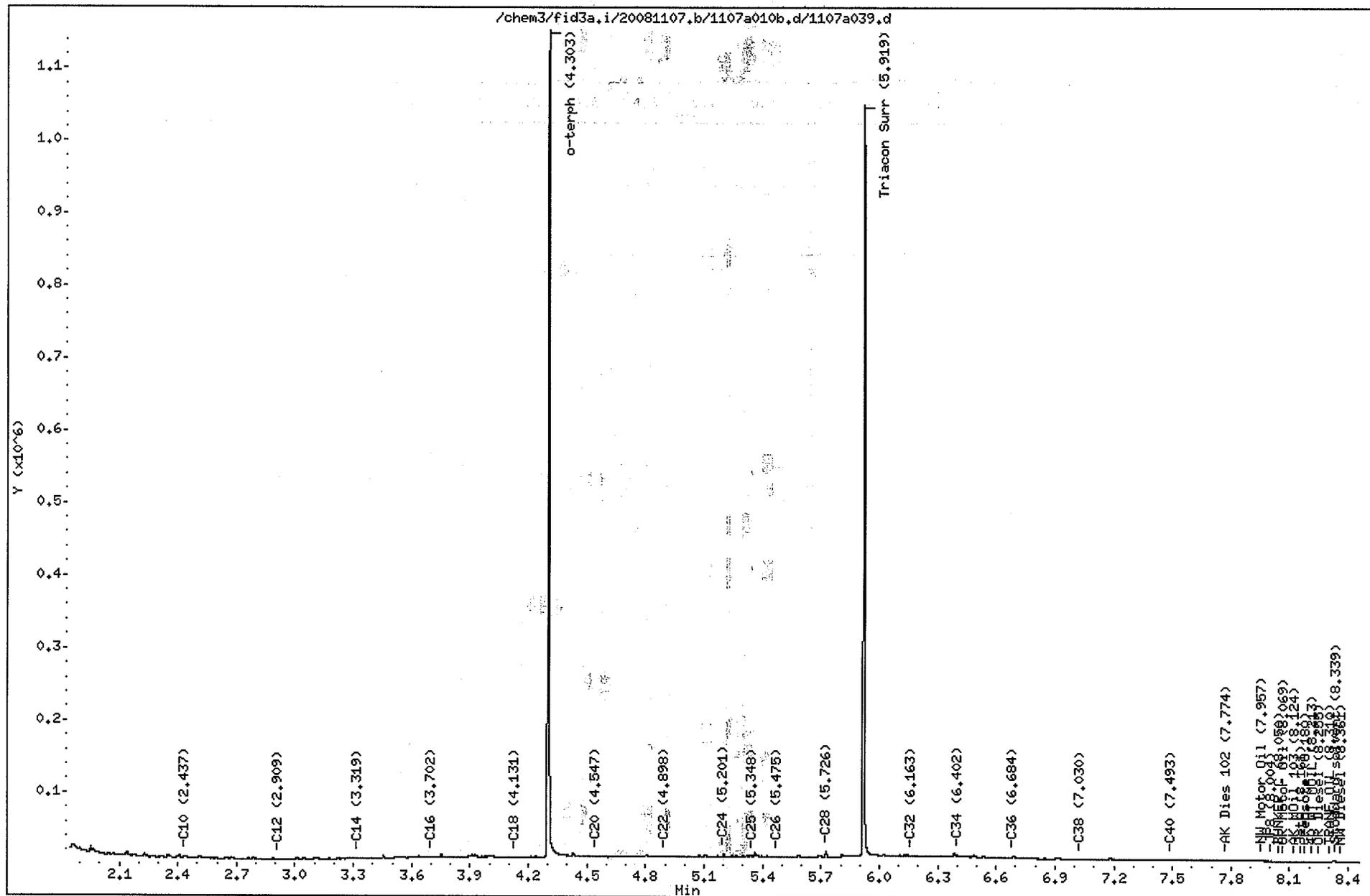
Sample Info: NY07N

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a040.d ARI ID: NY070  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 22:33  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.789	-0.006	55841	137367	GAS (Tol-C12)	689058	29
C8	1.896	0.004	17499	10063	DIESEL (C12-C24)	881637	52
C10	2.424	-0.021	33737	27154	M.OIL (C24-C38)	927231	73
C12	2.909	-0.003	4406	3745	AK-102 (C10-C25)	1087703	50
C14	3.328	0.003	5025	3365	AK-103 (C25-C36)	762541	83
C16	3.705	0.000	6735	2512	OR.DIES (C10-C28)	1331698	63
C18	4.128	-0.002	6999	1807	OR.MOIL (C28-C40)	828493	88
C20	4.545	-0.003	7006	2059	JET-A (C10-C18)	635583	37
C22	4.899	-0.003	7381	3622	MIN.OIL (C24-C38)	927231	72
C24	5.202	-0.006	8428	7047	MSPIRIT (Tol-C12)	689058	44
C25	5.345	-0.001	8606	2375			
C26	5.472	-0.002	8601	4044			
C28	5.711	-0.004	8920	2473			
C32	6.155	-0.001	10440	3117			
C34	6.390	-0.007	9857	6101			
Filter Peak	8.448	0.001	6003	1797	JP-4 (Tol-C14)	799982	70
C36	6.679	0.000	9911	23798	CREOSOT (C8-C22)	1290531	207
C38	7.029	-0.001	7465	3723			
C40	7.488	0.000	7131	8209	BUNKERC (C10-C38)	1995534	223

AZDIESEL (C10-C22)	872913	54
AZMOIL (C22-C32)	637324	99

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	639130	30.8	68.4
Triacontane	597519	30.6	68.1

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a040.d

Date : 07-NOV-2008 22:33

Client ID:

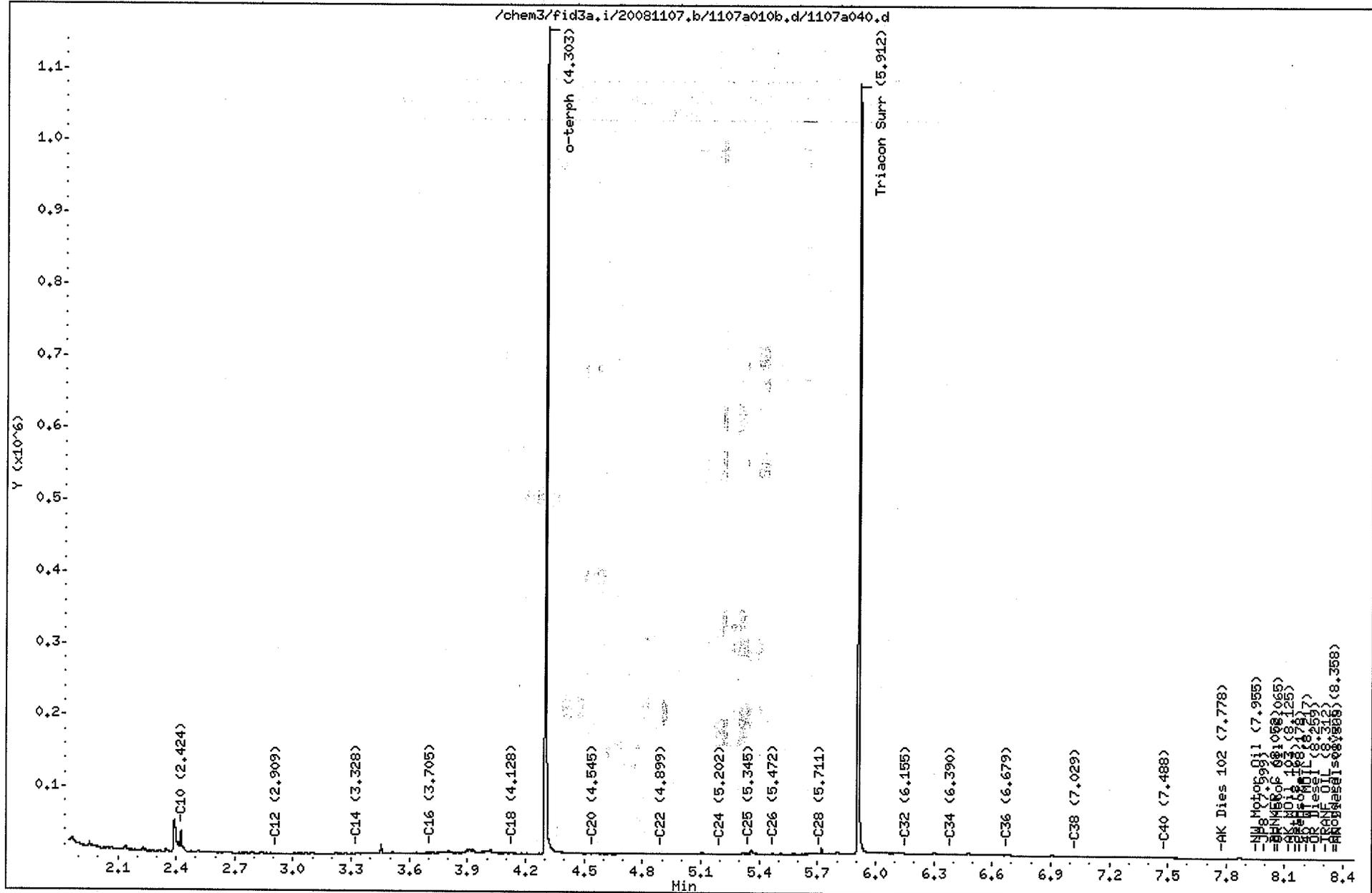
Instrument: fid3a.i

Sample Info: NY070

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-110508	78.3%	0
LCS-110508	81.9%	0
LCSD-110508	88.3%	0
TDP8-GW-081104	82.3%	0
TDP7-GW-081104	70.4%	0
TDP11-GW-081104	68.4%	0

	<b>LCS/MB LIMITS</b>	<b>QC LIMITS</b>
(O-TER) = o-Terphenyl	(55-110)	(50-150)

Prep Method: SW3510C  
Log Number Range: 08-30014 to 08-30016



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a035.d ARI ID: NX93LCSW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 21:18  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.788	-0.007	59743	85666	GAS (Tol-C12)	3341877	142
C8	1.886	-0.005	29568	29773	DIESEL (C12-C24)	17921271	1060
C10	2.443	-0.002	104273	77259	M.OIL (C24-C38)	868695	69
C12	2.911	-0.002	421010	262334	AK-102 (C10-C25)	20449930	949
C14	3.325	0.000	779473	358339	AK-103 (C25-C36)	701817	77
C16	3.704	0.000	808776	688728	OR.DIES (C10-C28)	20794740	982
C18	4.131	0.001	564821	407239	OR.MOIL (C28-C40)	643477	69
C20	4.546	-0.001	408907	319426	JET-A (C10-C18)	14988543	874
C22	4.900	-0.003	171819	134530	MIN.OIL (C24-C38)	868695	68
C24	5.201	-0.006	70962	53659	MSPRIT (Tol-C12)	3341877	211
C25	5.337	-0.008	41691	46935			
C26	5.477	0.002	13463	12121			
C28	5.726	0.011	17460	20587			
C32	6.152	-0.004	7711	9429			
C34	6.395	-0.002	7419	3113			
Filter Peak	8.445	-0.003	5804	4287	JP-4 (Tol-C14)	7102763	625
C36	6.671	-0.009	6946	2769	CREOSOT (C8-C22)	20464871	3283
C38	7.032	0.002	6507	3505			
C40	7.487	0.000	6199	2226	BUNKERC (C10-C38)	21276380	2381
=====							
AZDIESEL (C10-C22)			19465575	1212			
AZMOIL (C22-C32)			1195985	186			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
 AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	765154	36.9	81.9
Triacotane	718956	36.9	81.9

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date: 07-NOV-2008 21:18

Client ID:

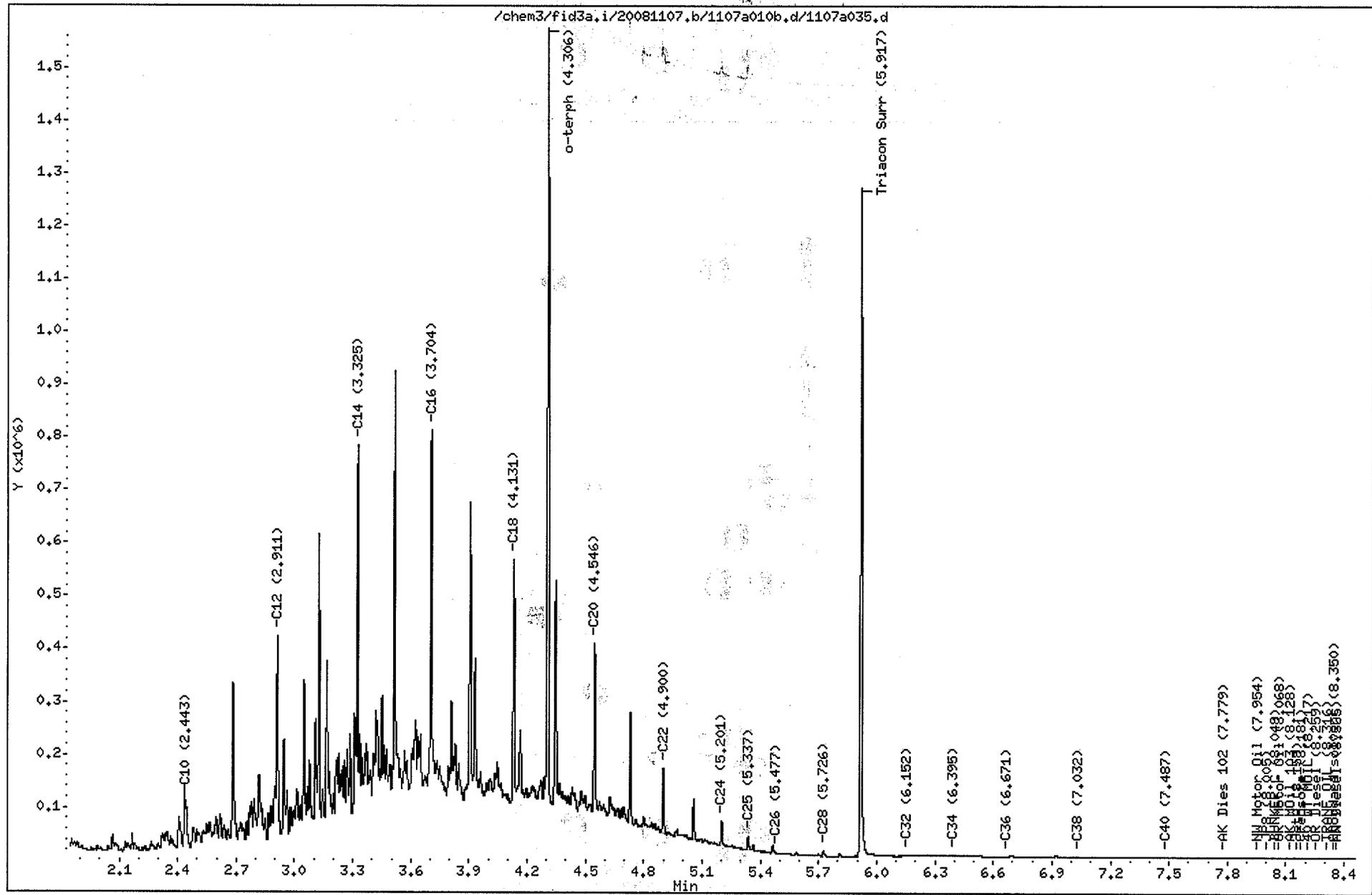
Instrument: fid3a.i

Sample Info: NX93LCSW1

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a036.d ARI ID: NX93LCSDW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 21:33  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.789	-0.006	66545	106367	GAS (Tol-C12)	3425476	145
C8	1.887	-0.005	29691	31546	DIESEL (C12-C24)	18112296	1071
C10	2.442	-0.003	111236	80461	M.OIL (C24-C38)	916699	73
C12	2.911	-0.001	438998	263036	AK-102 (C10-C25)	20700757	961
C14	3.325	0.000	766762	357119	AK-103 (C25-C36)	734796	80
C16	3.705	0.001	801122	709238	OR.DIES (C10-C28)	21060016	995
C18	4.131	0.001	540369	408990	OR.MOIL (C28-C40)	673233	72
C20	4.548	0.000	401118	321728	JET-A (C10-C18)	15136583	883
C22	4.901	-0.002	171482	133145	MIN.OIL (C24-C38)	916699	71
C24	5.202	-0.005	71562	61701	MSPRIT (Tol-C12)	3425476	216
C25	5.338	-0.008	44264	45022			
C26	5.465	-0.010	26343	31391			
C28	5.726	0.011	18995	18818			
C32	6.152	-0.004	8256	13317			
C34	6.393	-0.004	7826	1717			
Filter Peak	8.446	-0.001	6128	3304	JP-4 (Tol-C14)	7267053	640
C36	6.666	-0.013	7313	3500	CREOSOT (C8-C22)	20692128	3319
C38	7.035	0.005	6885	3027			
C40	7.486	-0.002	6564	1572	BUNKERC (C10-C38)	21574579	2414
=====							
AZDIESEL (C10-C22)			19684945	1226			
AZMOIL (C22-C32)			1248240	194			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
 AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	824356	39.7	88.3
Triacotane	772648	39.6	88.0

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a036.d

Date : 07-NOV-2008 21:33

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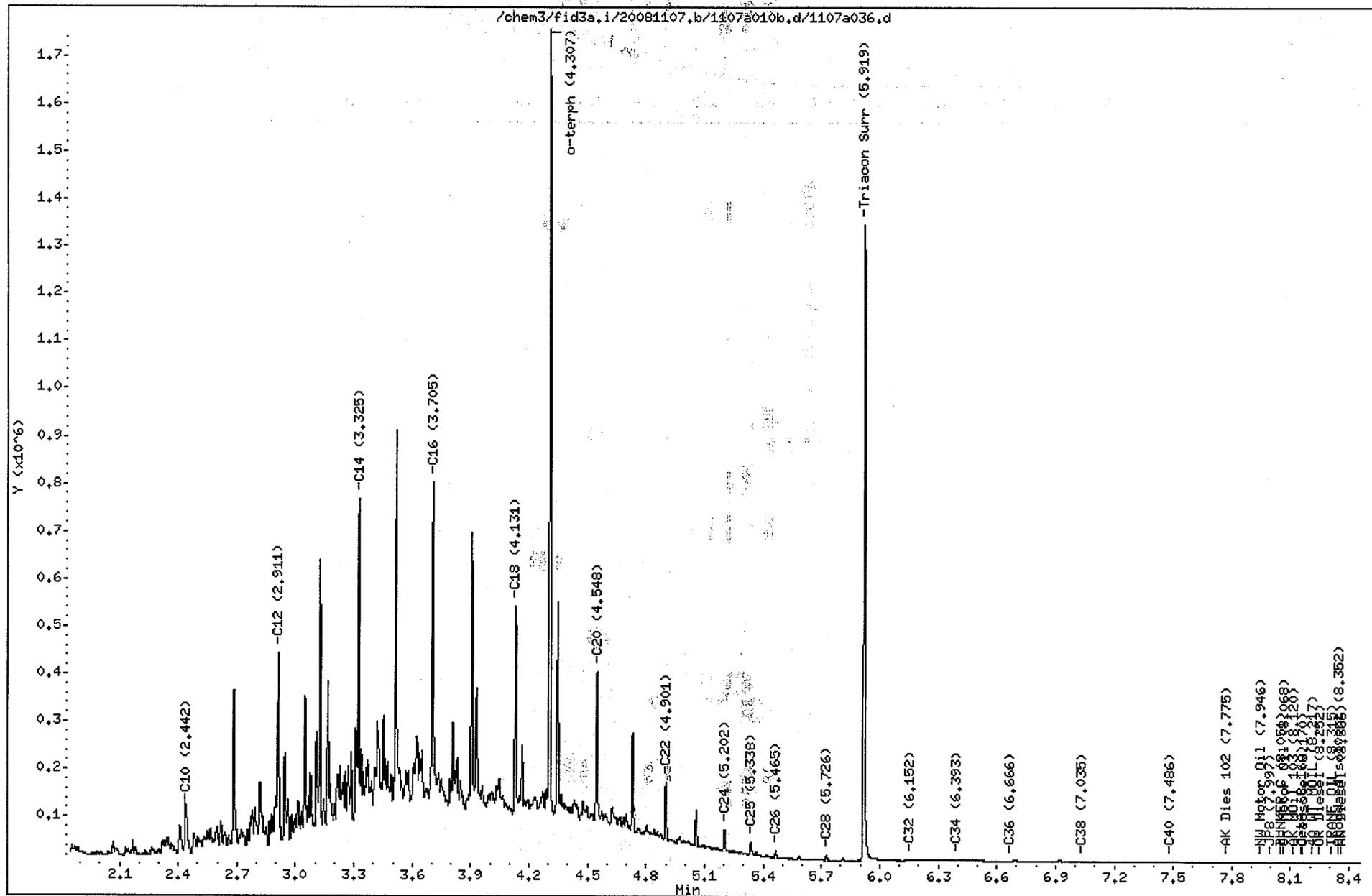
Instrument: fid3a.i

Sample Info: NX93LCSDW1

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Water  
Date Received: 11/04/08

ARI Job: NY07  
Project: SEATTLE/PHASEII  
025173.070

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
08-30014-110508MB	Method Blank	500 mL	1.00 mL	11/05/08
08-30014-110508LCS	Lab Control	500 mL	1.00 mL	11/05/08
08-30014-110508LCSD	Lab Control Dup	500 mL	1.00 mL	11/05/08
08-30014-NY07M	TDP8-GW-081104	500 mL	1.00 mL	11/05/08
08-30015-NY07N	TDP7-GW-081104	500 mL	1.00 mL	11/05/08
08-30016-NY07O	TDP11-GW-081104	500 mL	1.00 mL	11/05/08

ORGANICS ANALYSIS DATA SHEET  
TOTAL DIESEL RANGE HYDROCARBONS  
NWTPHD by GC/FID  
Page 1 of 1  
Matrix: Soil

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Received: 11/04/08

Data Release Authorized:  
Reported: 11/21/08 

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-111008	Method Blank	11/10/08	11/20/08	1.00	Diesel	5.0	< 5.0 U
08-30008	HC ID: ---		FID3A	1.0	Motor Oil o-Terphenyl	10	< 10 U 94.7%
NY07G	TDP11-9-081104	11/10/08	11/20/08	1.00	Diesel	5.5	20
08-30008	HC ID: DRO/MOTOR OIL		FID3A	1.0	Motor Oil o-Terphenyl	11	130 93.3%
NY07H	TDP12-7-081104	11/10/08	11/20/08	1.00	Diesel	140	140
08-30009	HC ID: DRO/MOTOR OIL		FID3A	20	Motor Oil o-Terphenyl	270	990 78.7%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.  
DL-Dilution of extract prior to analysis.  
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.  
Motor Oil quantitation on total peaks in the range from C24 to C38.  
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/21/08

Data file: /chem3/fid3a.i/20081119.b/1119a050.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY02MBS1  
Client ID:  
Injection: 20-NOV-2008 07:11  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	76632	86950	GAS (Tol-C12)	1074695	16
C8	1.873	0.000	28662	7412	DIESEL (C12-C24)	176505	12
C10	2.417	-0.003	11382	21802	M.OIL (C24-C38)	248459	21
C12	2.894	-0.002	4979	5978	AK-102 (C10-C25)	405124	21
C14	3.308	0.000	2389	1183	AK-103 (C25-C36)	184273	18
C16	3.683	0.000	1381	218	OR.DIES (C10-C28)	437352	22
C18	4.102	0.002	741	288	OR.MOIL (C28-C40)	275204	27
C20	4.516	-0.001	875	907	JET-A (C10-C18)	358076	21
C22	4.876	0.004	860	473	MIN.OIL (C24-C38)	248459	19
C24	5.174	-0.002	713	309	MSPRIT (Tol-C12)	1074695	68
C25	5.311	-0.001	866	427			
C26	5.440	0.000	924	291			
C28	5.671	-0.003	1843	1674			
C32	6.096	-0.006	3128	3382			
C34	6.335	0.000	2982	1244			
Filter Peak	8.445	-0.004	2291	957	JP-4 (Tol-C14)	1147080	101
C36	6.602	-0.004	2817	2764	CREOSOT (C8-C22)	995126	160
C38	6.936	-0.002	2617	1402			
C40	7.374	0.002	2530	1054	BUNKERC (C10-C38)	651759	73
AZDIESEL (C10-C22)			329219	20			
AZMOIL (C22-C32)			106363	17			

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) Jet A (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	737216	42.6	94.6
Triacontane	666142	40.0	88.9

ms 11/20/08

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119,b/1119a050.d

Date : 20-NOV-2008 07:11

Client ID:

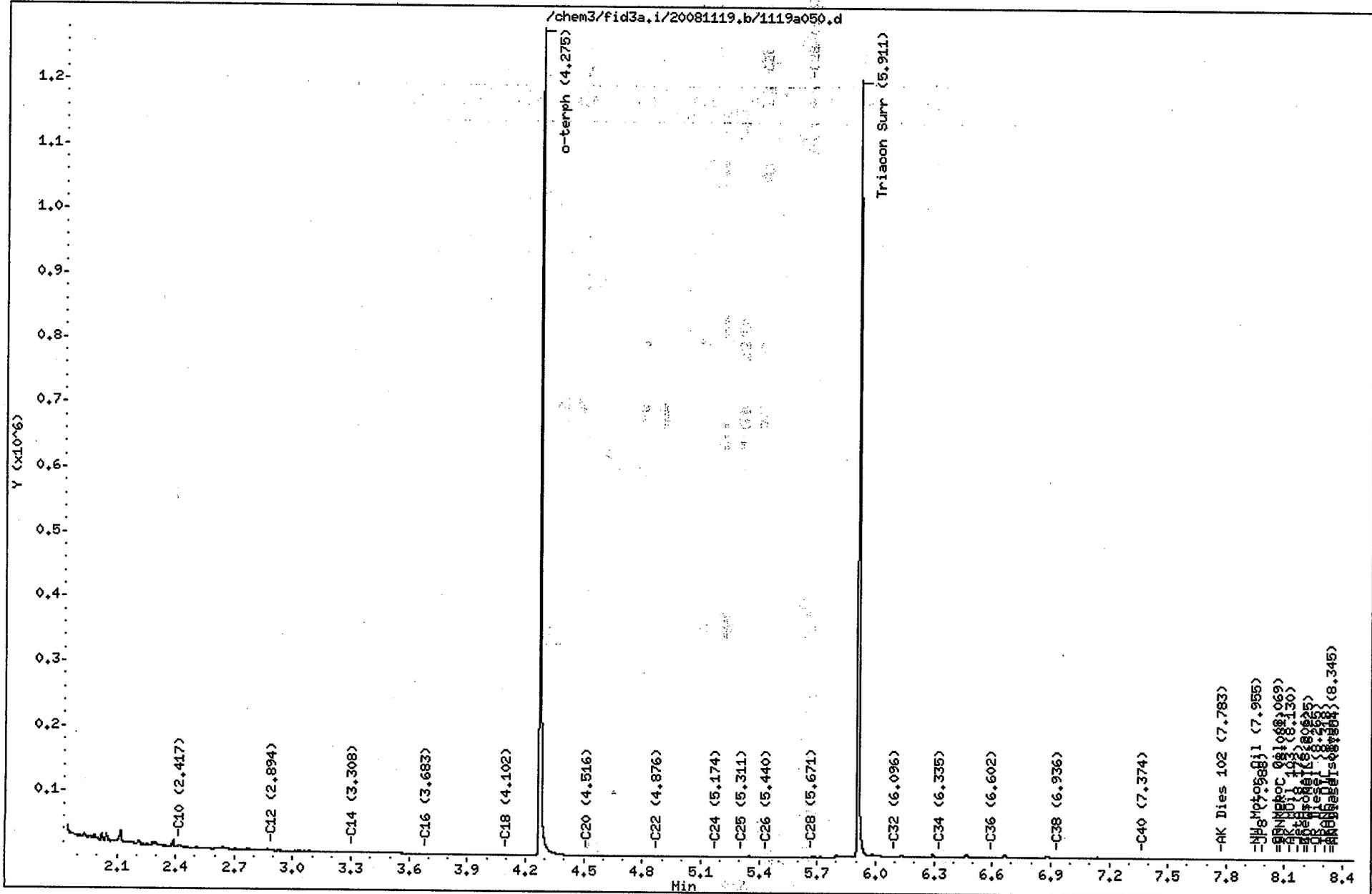
Instrument: fid3a.i

Sample Info: NY02MBS1

Operator: ms

Column phase: ZB1-HT

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PL  
11/21/08

Data file: /chem3/fid3a.i/20081119.b/1119a093.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY07G  
Client ID:  
Injection: 20-NOV-2008 17:39  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	88151	90587	GAS (Tol-C12)	1102141	17
C8	1.873	-0.001	28017	47117	DIESEL (C12-C24)	2717756	179
C10	2.418	-0.002	11257	19862	M.OIL (C24-C38)	14340718	1222
C12	2.894	-0.001	7625	5191	AK-102 (C10-C25)	3103771	163
C14	3.309	0.001	8704	11124	AK-103 (C25-C36)	12767815	1262
C16	3.683	0.000	10807	8708	OR.DIES (C10-C28)	6636507	338
C18	4.100	0.000	14949	21295	OR.MOIL (C28-C40)	11764363	1166
C20	4.515	-0.001	23976	17936	JET-A (C10-C18)	813300	48
C22	4.871	-0.002	44609	42048	MIN.OIL (C24-C38)	14340718	1118
C24	5.174	-0.002	79458	57212	MSPIRIT (Tol-C12)	1102141	70
C25	5.312	-0.001	107800	131748			
C26	5.438	-0.002	126226	119384			
C28	5.676	0.001	179990	59798			
C32	6.103	0.001	203770	166576			
C34	6.330	-0.004	146256	98367			
Filter Peak	8.446	-0.002	15927	11521	JP-4 (Tol-C14)	1249324	110
C36	6.607	0.001	96757	61471	CREOSOT (C8-C22)	2525938	405
C38	6.939	0.000	62911	21842			
C40	7.369	-0.003	35946	22987	BUNKERC (C10-C38)	17313201	1937

DRG  
MC

AZDIESEL (C10-C22)	1861250	116
AZMOIL (C22-C32)	10250018	1592

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) JetA (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	728014	42.0	93.4
Triacontane	635619	38.2	84.8

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119.b/1119a093.d

Date : 20-NOV-2008 17:39

Client ID:

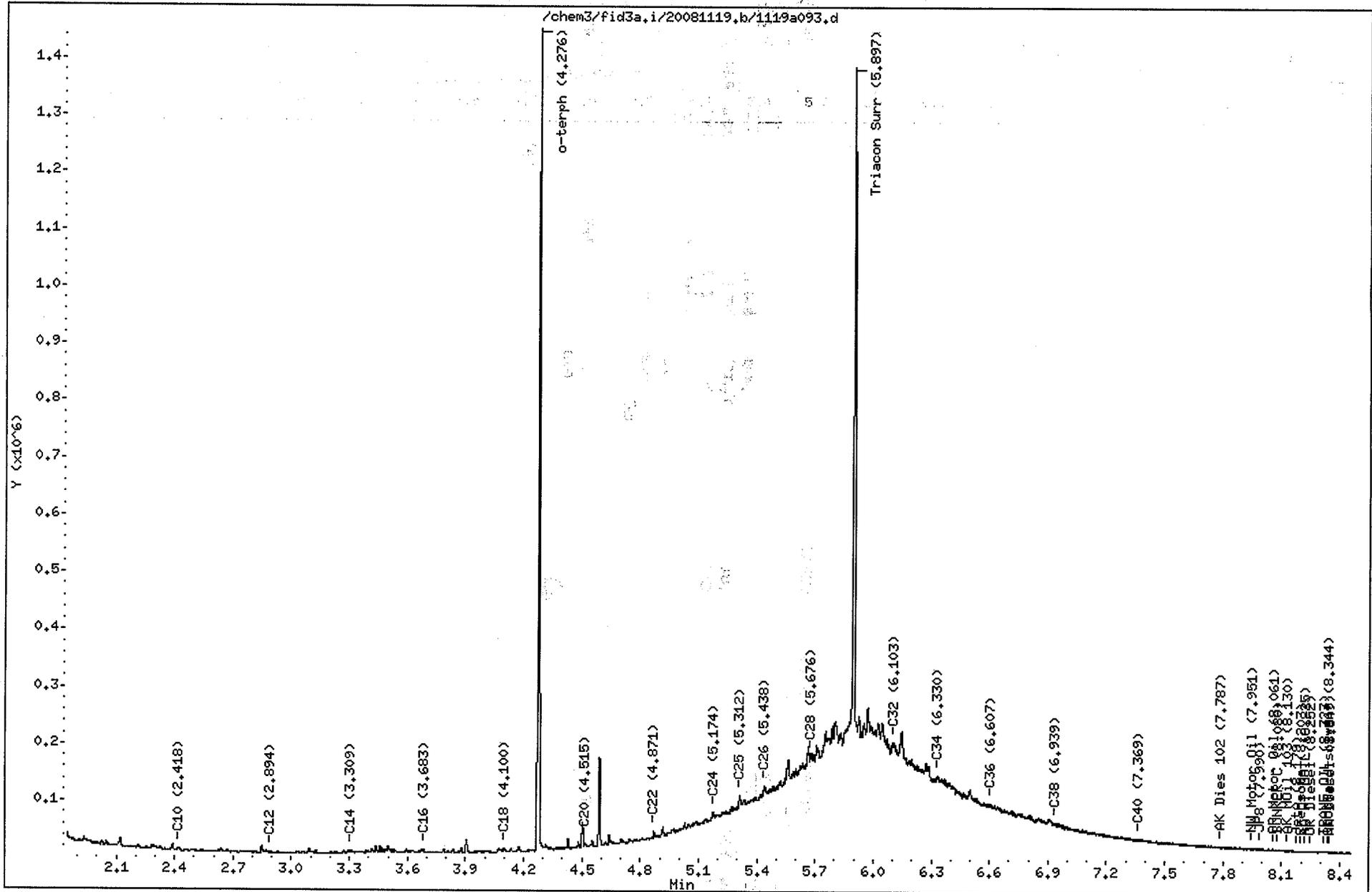
Instrument: fid3a.i

Sample Info: NY07G

Operator: ms

Column phase: ZB1-HT

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

10  
11/2/08

Data file: /chem3/fid3a.i/20081119.b/1119a070.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY07H  
Client ID:  
Injection: 20-NOV-2008 12:02  
Dilution Factor: 20

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	48672	51036	GAS (Tol-C12)	967829	15
C8	1.872	-0.001	26006	26599	DIESEL (C12-C24)	753275	50 <i>DPC</i>
C10	2.417	-0.003	9628	12715	M.OIL (C24-C38)	4300426	367 <i>AKO RAO</i>
C12	2.893	-0.002	4606	4227	AK-102 (C10-C25)	1021881	54
C14	3.310	0.002	3610	3855	AK-103 (C25-C36)	3666187	362
C16	3.688	0.004	2904	2619	OR.DIES (C10-C28)	2040117	104
C18	4.102	0.001	2983	1519	OR.MOIL (C28-C40)	3773303	374
C20	4.518	0.001	5160	2651	JET-A (C10-C18)	428889	25
C22	4.871	-0.001	10130	7925	MIN.OIL (C24-C38)	4300426	335
C24	5.177	0.001	22833	19988	MSPIRIT (Tol-C12)	967829	61
C25	5.316	0.004	29052	22633			
C26	5.445	0.006	37435	17033			
C28	5.672	-0.002	51297	30078			
C32	6.100	-0.002	54711	26745			
C34	6.336	0.002	44603	7112			
Filter Peak	8.447	-0.001	9762	4589	JP-4 (Tol-C14)	1051756	93
C36	6.608	0.002	36939	20967	CREOSOT (C8-C22)	1218708	195
C38	6.937	-0.001	28257	8953			
C40	7.372	0.000	18390	5057	BUNKERC (C10-C38)	5266739	589
=====							
AZDIESEL (C10-C22)			628297	39			
AZMOIL (C22-C32)			2671551	415			
=====							

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) Jet A (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	30740	1.8	78.9
Triacontane	27274	1.6	72.8

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119,b/1119a070.d

Date : 20-NOV-2008 12:02

Client ID:

Sample Info: NY07H,20

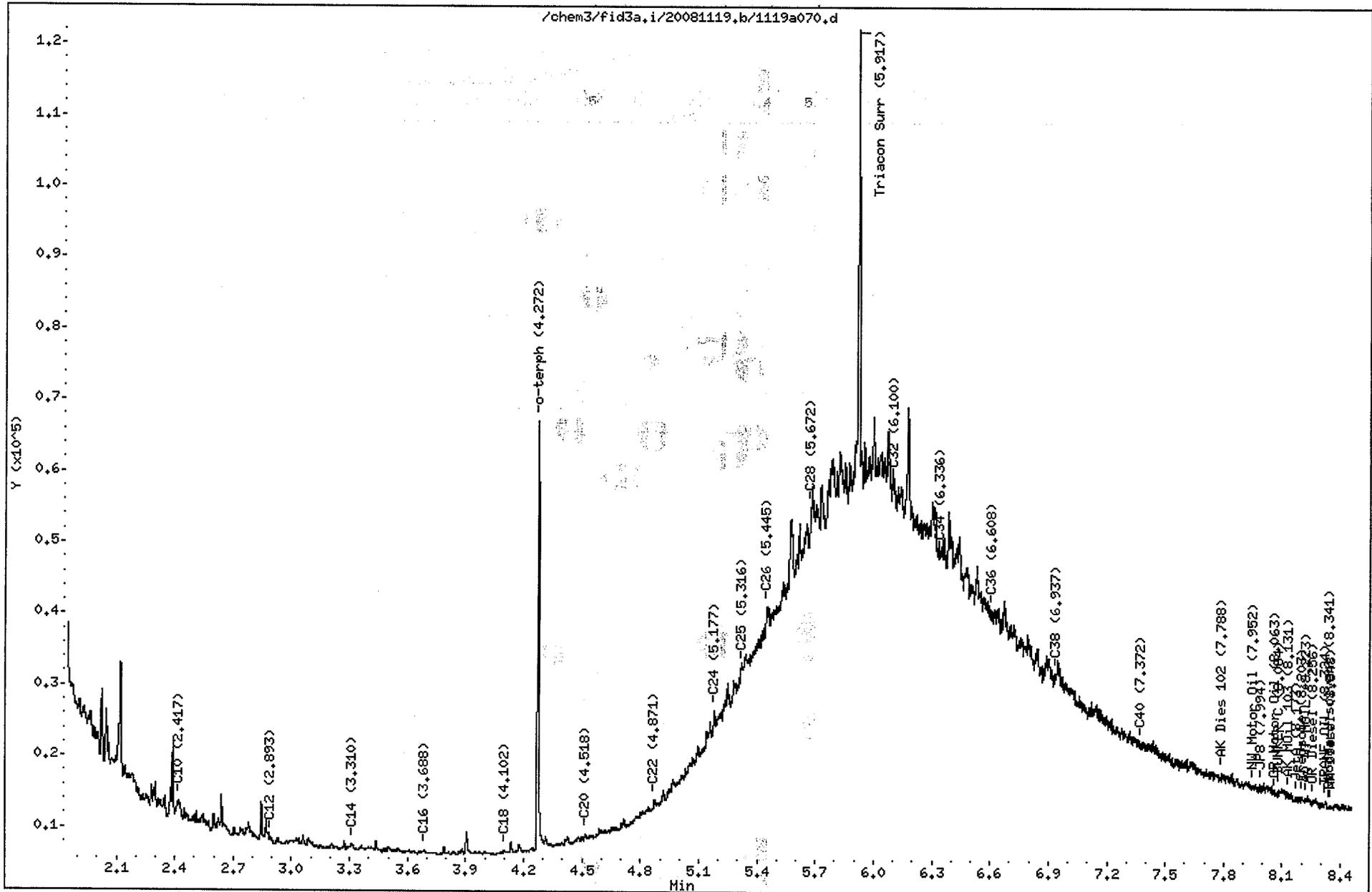
Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



**TPHD SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
111008MBS	94.7%	0
111008LCS	96.4%	0
111008LCSD	102%	0
TDP11-9-081104	93.3%	0
TDP12-7-081104	78.7%	0

**LCS/MB LIMITS      QC LIMITS**

(OTER) = o-Terphenyl

(52-121)

(48-119)

Prep Method: SW3546  
Log Number Range: 08-30008 to 08-30009

**ORGANICS ANALYSIS DATA SHEET**

NWTPHD by GC/FID

Page 1 of 1

Sample ID: LCS-111008

LCS/LCSD

Lab Sample ID: LCS-111008

LIMS ID: 08-30008

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/21/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/10/08

Sample Amount LCS: 10.0 g

LCSD: 10.0 g

Date Analyzed LCS: 11/20/08 06:42

Final Extract Volume LCS: 1.0 mL

LCSD: 11/20/08 06:56

LCSD: 1.0 mL

Instrument/Analyst LCS: FID3A/PKC

Dilution Factor LCS: 1.00

LCSD: FID3A/PKC

LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	122	150	81.3%	128	150	85.3%	4.8%

**TPHD Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	96.4%	102%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.

Analytical Resources Inc.  
TPH Quantitation Report

KC  
11/21/08

Data file: /chem3/fid3a.i/20081119.b/1119a048.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY02LCSS1  
Client ID:  
Injection: 20-NOV-2008 06:42  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.002	96447	116644	GAS (Tol-C12)	4959909	76
C8	1.871	-0.003	49045	47228	DIESEL (C12-C24)	18463159	1219
C10	2.419	-0.002	307365	195926	M.OIL (C24-C38)	933314	80
C12	2.895	-0.001	593402	282258	AK-102 (C10-C25)	21976313	1158
C14	3.307	-0.001	806380	374583	AK-103 (C25-C36)	785542	78
C16	3.684	0.000	798012	667577	OR.DIES (C10-C28)	22367347	1140
C18	4.103	0.003	505043	411215	OR.MOIL (C28-C40)	601664	60
C20	4.518	0.001	381512	316805	JET-A (C10-C18)	16533737	982
C22	4.873	0.000	175483	132090	MIN.OIL (C24-C38)	933314	73
C24	5.178	0.002	72697	58882	MSPRIT (Tol-C12)	4959909	313
C25	5.314	0.002	43331	39095			
C26	5.443	0.003	26696	32625			
C28	5.680	0.006	11467	13274			
C32	6.092	-0.010	7995	8134			
C34	6.339	0.004	6821	4430			
Filter Peak	8.443	-0.006	3273	2523	JP-4 (Tol-C14)	9305519	819
C36	6.603	-0.002	5973	2253	CREOSOT (C8-C22)	22452599	3601
C38	6.938	-0.001	4892	1163			
C40	7.369	-0.003	4154	3885	BUNKERC (C10-C38)	22858795	2558

AZDIESEL (C10-C22) 20835757 1297  
AZMOIL (C22-C32) 1289612 200

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) Jet A (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	751343	43.4	96.4
Triacontane	707528	42.5	94.4

ms 11/20/08

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119.b/1119a048.d

Date : 20-NOV-2008 06:42

Client ID:

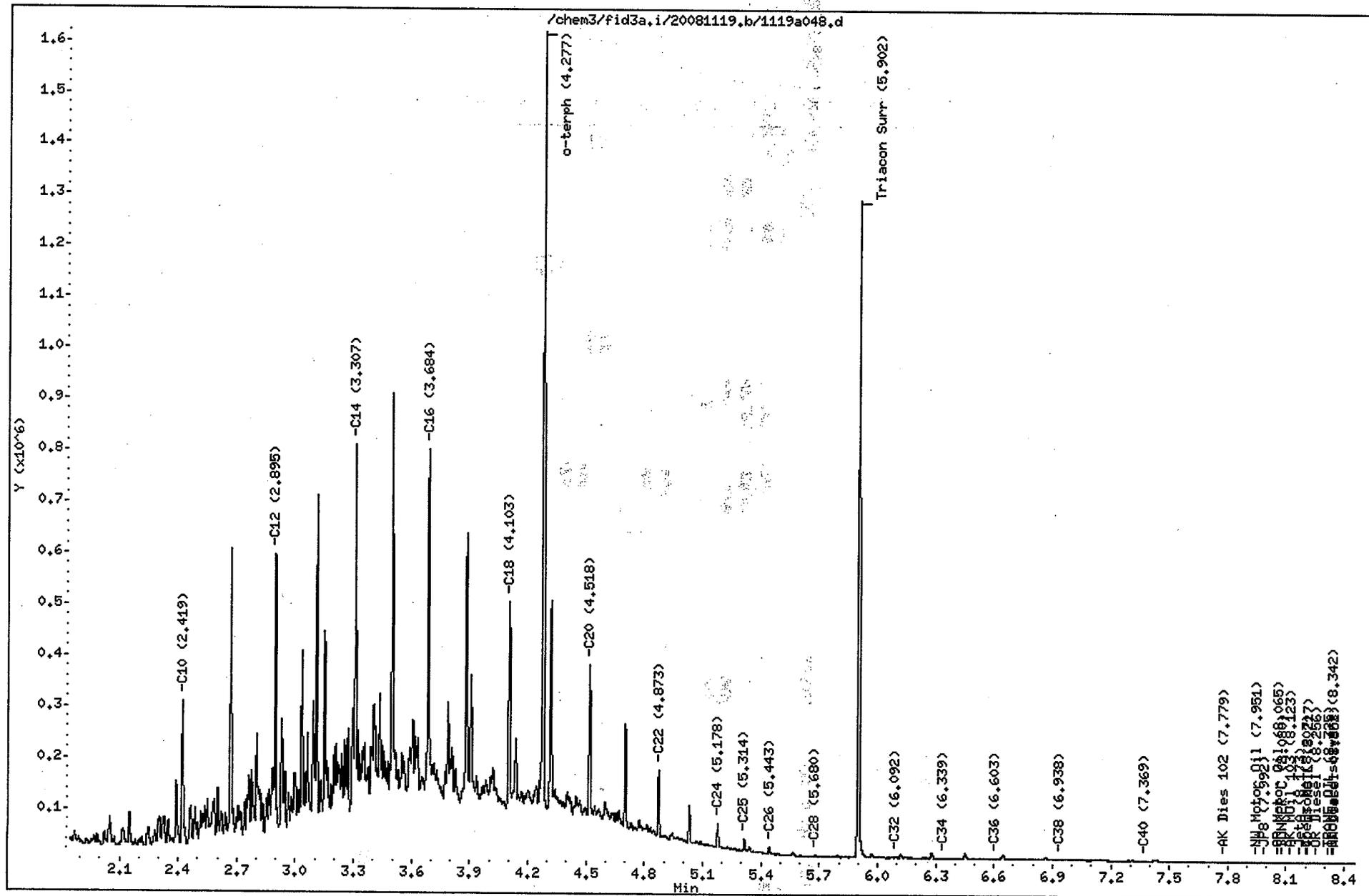
Sample Info: NY02LCSS1

Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/20/08

Data file: /chem3/fid3a.i/20081119.b/1119a049.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY02LCSDS1  
Client ID:  
Injection: 20-NOV-2008 06:56  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.774	0.000	105564	96741	GAS (Tol-C12)	5200565	80
C8	1.873	0.000	50140	49585	DIESEL (C12-C24)	19386077	1280
C10	2.419	-0.001	292729	178764	M.OIL (C24-C38)	659708	56
C12	2.895	-0.001	653508	342388	AK-102 (C10-C25)	23062699	1215
C14	3.307	-0.001	825910	394861	AK-103 (C25-C36)	551624	55
C16	3.683	-0.001	835933	692208	OR.DIES (C10-C28)	23399423	1193
C18	4.101	0.001	533585	414761	OR.MOIL (C28-C40)	363341	36
C20	4.516	0.000	394153	341636	JET-A (C10-C18)	17323356	1029
C22	4.873	0.000	172039	137852	MIN.OIL (C24-C38)	659708	51
C24	5.179	0.003	75937	55169	MSPRIT (Tol-C12)	5200565	329
C25	5.316	0.004	44114	46492			
C26	5.447	0.007	24800	26316			
C28	5.670	-0.004	6776	5183			
C32	6.098	-0.004	4256	2671			
C34	6.340	0.006	3805	1587			
Filter Peak	8.450	0.001	2682	801	JP-4 (Tol-C14)	9729517	856
C36	6.618	0.013	3909	4175	CREOSOT (C8-C22)	23581410	3782
C38	6.931	-0.007	3473	2035			
C40	7.374	0.002	3076	856	BUNKERC (C10-C38)	23680184	2650
AZDIESEL (C10-C22)			21888159	1363			
AZMOIL (C22-C32)			1160876	180			

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) Jet A (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	792297	45.7	101.7
Triacontane	725057	43.5	96.8

ms 11/20/08

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119.b/1119a049.d

Date : 20-NOV-2008 06:56

Client ID:

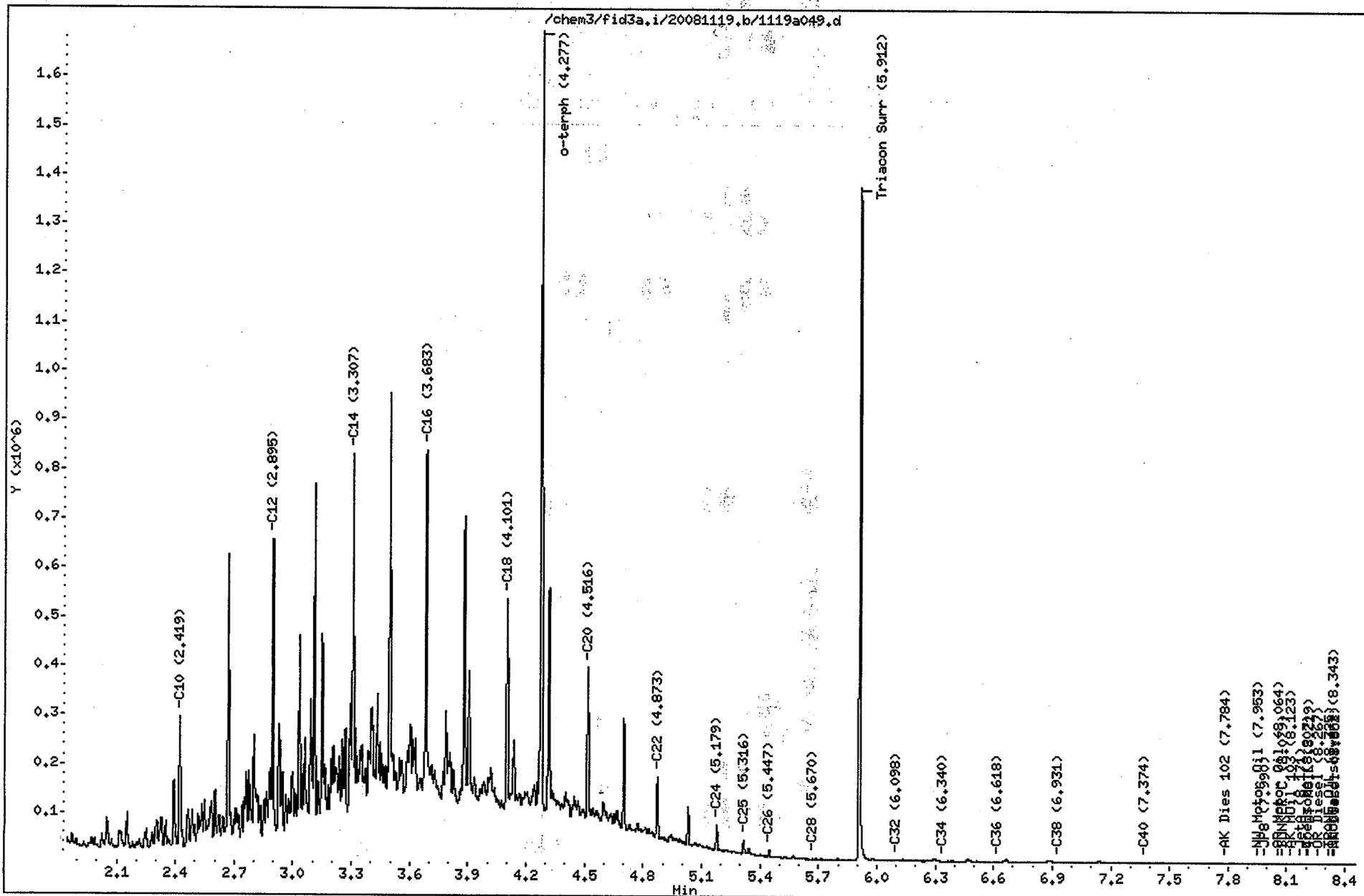
Instrument: fid3a.i

Sample Info: NY02LCSDS1

Operator: ms

Column phase: ZB1-HT

Column diameter: 0.25



**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/04/08

ARI Job: NY07  
Project: SEATTLE/PHASEII  
025173.070

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
08-30008-111008MB1	Method Blank	10.0 g	1.00 mL	-	11/10/08
08-30008-111008LCS1	Lab Control	10.0 g	1.00 mL	-	11/10/08
08-30008-111008LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	11/10/08
08-30008-NY07G	TDP11-9-081104	9.12 g	1.00 mL	D	11/10/08
08-30009-NY07H	TDP12-7-081104	7.42 g	1.00 mL	D	11/10/08

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TPD6-8-081104  
SAMPLE

Lab Sample ID: NY07A

LIMS ID: 08-30002

Matrix: Soil

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 84.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	6	6	U
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/13/08	6010B	11/18/08	7440-47-3	Chromium	0.6	13.6	
3050B	11/13/08	6010B	11/18/08	7440-50-8	Copper	0.2	20.5	
3050B	11/13/08	6010B	11/18/08	7439-92-1	Lead	2	2	U
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP7-8-081104

**SAMPLE**

Lab Sample ID: NY07B

LIMS ID: 08-30003

Matrix: Soil

Data Release Authorized: *AK*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 85.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	6	6	U
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/13/08	6010B	11/18/08	<b>7440-47-3</b>	<b>Chromium</b>	0.6	<b>16.5</b>	
3050B	11/13/08	6010B	11/18/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>20.2</b>	
3050B	11/13/08	6010B	11/18/08	<b>7439-92-1</b>	<b>Lead</b>	2	<b>2</b>	
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP8-8-081104

SAMPLE

Lab Sample ID: NY07C

LIMS ID: 08-30004

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 82.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	6	6	U
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.2	0.2	
3050B	11/13/08	6010B	11/18/08	7440-47-3	Chromium	0.6	13.8	
3050B	11/13/08	6010B	11/18/08	7440-50-8	Copper	0.2	21.6	
3050B	11/13/08	6010B	11/18/08	7439-92-1	Lead	2	7	
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP9-8-081104

**SAMPLE**

Lab Sample ID: NY07D

LIMS ID: 08-30005

Matrix: Soil

Data Release Authorized *MW*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 78.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	6	6	U
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/13/08	6010B	11/18/08	<b>7440-47-3</b>	<b>Chromium</b>	0.6	<b>15.1</b>	
3050B	11/13/08	6010B	11/18/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>17.7</b>	
3050B	11/13/08	6010B	11/18/08	7439-92-1	Lead	2	2	U
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: TDP10-8-081104

SAMPLE

Lab Sample ID: NY07E

LIMS ID: 08-30006

Matrix: Soil

Data Release Authorized: *me*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 81.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	6	6	U
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/13/08	6010B	11/18/08	7440-47-3	Chromium	0.6	20.7	
3050B	11/13/08	6010B	11/18/08	7440-50-8	Copper	0.2	18.9	
3050B	11/13/08	6010B	11/18/08	7439-92-1	Lead	2	2	U
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.06	0.06	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP11-9-081104

SAMPLE

Lab Sample ID: NY07G

LIMS ID: 08-30008

Matrix: Soil

Data Release Authorized: *MW*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 88.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	5	5	U
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/13/08	6010B	11/18/08	<b>7440-47-3</b>	<b>Chromium</b>	0.5	<b>17.1</b>	
3050B	11/13/08	6010B	11/18/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>24.8</b>	
3050B	11/13/08	6010B	11/18/08	<b>7439-92-1</b>	<b>Lead</b>	2	<b>3</b>	
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.04	0.04	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

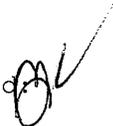
Sample ID: TDP12-7-081104

SAMPLE

Lab Sample ID: NY07H

LIMS ID: 08-30009

Matrix: Soil

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 64.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	7	8	
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.3	0.8	
3050B	11/13/08	6010B	11/18/08	7440-47-3	Chromium	0.7	20.0	
3050B	11/13/08	6010B	11/18/08	7440-50-8	Copper	0.3	31.3	
3050B	11/13/08	6010B	11/18/08	7439-92-1	Lead	3	13	
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.06	0.19	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP13-7-081104

SAMPLE

Lab Sample ID: NY07J

LIMS ID: 08-30011

Matrix: Soil

Data Release Authorized 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 82.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/19/08	7440-38-2	Arsenic	10	10	U
3050B	11/13/08	6010B	11/19/08	7440-43-9	Cadmium	0.6	0.6	U
3050B	11/13/08	6010B	11/19/08	<b>7440-47-3</b>	<b>Chromium</b>	1	<b>17</b>	
3050B	11/13/08	6010B	11/19/08	<b>7440-50-8</b>	<b>Copper</b>	0.6	<b>97.1</b>	
3050B	11/13/08	6010B	11/19/08	7439-92-1	Lead	6	6	U
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.06	0.06	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP14-4-081104

SAMPLE

Lab Sample ID: NY07K

LIMS ID: 08-30012

Matrix: Soil

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 72.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/19/08	7440-38-2	Arsenic	7	17	
3050B	11/13/08	6010B	11/19/08	7440-43-9	Cadmium	0.3	0.6	
3050B	11/13/08	6010B	11/19/08	7440-47-3	Chromium	0.7	24.6	
3050B	11/13/08	6010B	11/19/08	7440-50-8	Copper	0.3	36.6	
3050B	11/13/08	6010B	11/19/08	7439-92-1	Lead	3	18	
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.06	0.13	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP15-4-081104

**SAMPLE**

Lab Sample ID: NY07L

LIMS ID: 08-30013

Matrix: Soil

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Percent Total Solids: 78.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/19/08	7440-38-2	Arsenic	6	9	
3050B	11/13/08	6010B	11/19/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/13/08	6010B	11/19/08	7440-47-3	Chromium	0.6	17.3	
3050B	11/13/08	6010B	11/19/08	7440-50-8	Copper	0.2	25.7	
3050B	11/13/08	6010B	11/19/08	7439-92-1	Lead	2	3	
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.06	0.06	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TPD6-8-081104

DUPLICATE

Lab Sample ID: NY07A

LIMS ID: 08-30002

Matrix: Soil

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	6 U	6 U	0.0%	+/- 6	L
Cadmium	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L
Chromium	6010B	13.6	11.8	14.2%	+/- 20%	
Copper	6010B	20.5	15.0	31.0%	+/- 20%	*
Lead	6010B	2 U	2 U	0.0%	+/- 2	L
Mercury	7471A	0.05 U	0.05 U	0.0%	+/- 0.05	L

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TPD6-8-081104

MATRIX SPIKE

Lab Sample ID: NY07A

LIMS ID: 08-30002

Matrix: Soil

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	6 U	206	231	89.2%	
Cadmium	6010B	0.2 U	50.1	57.7	86.8%	
Chromium	6010B	13.6	60.4	57.7	81.1%	
Copper	6010B	20.5	69.5	57.7	84.9%	
Lead	6010B	2 U	200	231	86.6%	
Mercury	7471A	0.05 U	0.55	0.511	108%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NY07LCS

LIMS ID: 08-30003

Matrix: Soil

Data Release Authorized *ml*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	189	200	94.5%	
Cadmium	6010B	45.6	50.0	91.2%	
Chromium	6010B	45.2	50.0	90.4%	
Copper	6010B	48.0	50.0	96.0%	
Lead	6010B	189	200	94.5%	
Mercury	7471A	1.04	1.00	104%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: NY07MB

LIMS ID: 08-30003

Matrix: Soil

Data Release Authorized: *gje*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/13/08	6010B	11/18/08	7440-38-2	Arsenic	5	5	U
3050B	11/13/08	6010B	11/18/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/13/08	6010B	11/18/08	7440-47-3	Chromium	0.5	0.5	U
3050B	11/13/08	6010B	11/18/08	7440-50-8	Copper	0.2	0.2	U
3050B	11/13/08	6010B	11/18/08	7439-92-1	Lead	2	2	U
CLP	11/13/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP8-GW-081104  
SAMPLE

Lab Sample ID: NY07M

LIMS ID: 08-30014

Matrix: Water

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/06/08	200.8	11/14/08	7440-38-2	Arsenic	0.2	1.8	
6010B	11/06/08	6010B	11/18/08	7440-43-9	Cadmium	2	2	U
6010B	11/06/08	6010B	11/18/08	7440-47-3	Chromium	5	5	U
6010B	11/06/08	6010B	11/18/08	7440-50-8	Copper	2	2	U
200.8	11/06/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/06/08	7470A	11/07/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP7-GW-081104

SAMPLE

Lab Sample ID: NY07N

LIMS ID: 08-30015

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/06/08	200.8	11/14/08	7440-38-2	Arsenic	0.2	11.4	
6010B	11/06/08	6010B	11/18/08	7440-43-9	Cadmium	2	2	U
6010B	11/06/08	6010B	11/18/08	7440-47-3	Chromium	5	7	
6010B	11/06/08	6010B	11/18/08	7440-50-8	Copper	2	2	U
200.8	11/06/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/06/08	7470A	11/07/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP11-GW-081104

SAMPLE

Lab Sample ID: NY070

LIMS ID: 08-30016

Matrix: Water

Data Release Authorized 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: 11/04/08

Date Received: 11/04/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/06/08	200.8	11/14/08	7440-38-2	Arsenic	0.5	21.5	
6010B	11/06/08	6010B	11/18/08	7440-43-9	Cadmium	2	2	U
6010B	11/06/08	6010B	11/18/08	7440-47-3	Chromium	5	14	
6010B	11/06/08	6010B	11/18/08	7440-50-8	Copper	2	2	U
200.8	11/06/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/06/08	7470A	11/07/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NY07LCS

LIMS ID: 08-30014

Matrix: Water

Data Release Authorized: 

Reported: 11/20/08

QC Report No: NY07-The Boeing Company

Project: SEATTLE/PHASEII

025173.070

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	23.5	25.0	94.0%	
Cadmium	6010B	480	500	96.0%	
Chromium	6010B	463	500	92.6%	
Copper	6010B	466	500	93.2%	
Lead	200.8	24	25	96.0%	
Mercury	7470A	2.3	2.0	115%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%



INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: NY07MB  
LIMS ID: 08-30014  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 11/20/08

QC Report No: NY07-The Boeing Company  
Project: SEATTLE/PHASEII  
025173.070  
Date Sampled: NA  
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/06/08	200.8	11/14/08	7440-38-2	Arsenic	0.2	0.2	U
6010B	11/06/08	6010B	11/18/08	7440-43-9	Cadmium	2	2	U
6010B	11/06/08	6010B	11/18/08	7440-47-3	Chromium	5	5	U
6010B	11/06/08	6010B	11/18/08	7440-50-8	Copper	2	2	U
200.8	11/06/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/06/08	7470A	11/07/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL  
RL-Reporting Limit



## Analytical Resources, Incorporated

Analytical Chemists and Consultants

November 25, 2008

Tim Syverson  
Landau Associates, Inc.  
130 Second Ave  
Edmonds, WA 98020

**RE: Project: Seattle/Phase II, 025173**

**ARI Job No.: NY44**

Dear Tim:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, the analytical results for the above referenced project. Analytical Resources, Inc. (ARI) accepted ten soil samples, three water samples, and a trip blank on November 5, 2008. Three coolers were received with temperatures of 0.8, 5.8, and 6.0°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM PAHs, PCBs, NWTPH-HCID, NWTPH-Dx, and Total and Dissolved Metals, as requested. Please note that the SIM PAH analysis was cancelled for all soil samples and MTCA Metals were requested instead of RCRA Metals for all samples.

**Volatiles Analyses:** Continuing Calibrations had compounds outside of the 20% control limit for the 11/7/08, 11/12/08, and 11/13/08 volatiles analyses, but were accepted outliers under ARI SOPs. No further corrective action was taken.

The internal standard percent difference of d4-1,4-Dichlorobenzene was outside the control limits for sample **TDP16-3-081105**. The sample was re-analyzed at a dilution and all internal standard percent differences were within control limits. Both sets of data have been included in this report for your review. No further corrective action was required.

**Semivolatiles Analyses:** The LCS and LCSD percent recoveries of Benzoic Acid fell outside the control limits for **LCS-111108**. No further corrective action is required for this compound as it is a known poor performer.

Several LCS and LCSD percent recoveries were outside the control limits high for **LCS-111108**. No further corrective action was required.

**SIM PAH Analysis:** The LCS percent recovery of 1-Methylnaphthalene fell outside the control limits low for **LCS-110708**. The LCSD percent recovery was within control limits. No further corrective action was required.

**PCBs Analyses:** The surrogate percent recoveries of Decachlorobiphenyl and Tetrachlorometaxylene fell outside the control limits for sample **TDP18-GW-081105**. The sample was re-extracted and re-analyzed outside the method recommended holding time. The re-analysis surrogate percent recoveries were within control limits. Both sets of data have been included in this report for your review. No further corrective action was required.



## Analytical Resources, Incorporated

Analytical Chemists and Consultants

**NWTPH-HCID Analyses:** Please note that all samples that were detected for Diesel or Motor Oil were re-analyzed by method NWTPH-Dx.

*There were no anomalies associated with the NWTPH-Dx analysis.*

**Metal Analyses:** The duplicate relative percent differences of chromium, copper, and lead were outside the control limit for sample **TPD19-4-081105**. All other quality control parameters were met for these analytes. No further corrective action was required.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Kelly Bottem  
Client Services Manager  
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- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- 

NY 44

Date 11/5/08  
Page 1 of 1**Chain-of-Custody Record**

Project Name <u>Thompson</u> Project No. <u>025173</u>					Testing Parameters							Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/>							
Project Location/Event <u>Phase II</u>					TRH HClP PCEA Methyl + Copra VOCs D's Metals PCBs SVOCs PAH-SIM														
Sampler's Name <u>Elizabeth Poole</u>																			
Project Contact <u>Kathryn Hartley</u>																			
Send Results To <u>K Hartley, T Syverson, A Halverson</u>																			
Sample I.D.	Date	Time	Matrix	No. of Containers	TRH	HClP	PCEA	Methyl + Copra	VOCs	D's	Metals	PCBs	SVOCs	PAH-SIM	Observations/Comments				
TDP16-3'-081105	11/5/08	830	S	7	X	X	X		X	X	X				<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input checked="" type="checkbox"/> preserved w/methanol <input checked="" type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal water samples field filtered  Other _____ _____ _____ _____				
TDP14-4'-081105		945		7	X	X	X		X	X	X								
TDP18-4'-081105		1015		7	X	X	X		X	X	X								
TDP19-4'-081105		1115		7	X	X	X		X	X	X								
TDP20-3'-081105		1210		5	X	X			X										
TDP21-3'-081105		1215		5	X	X			X										
TDP22-3'-081105		1230		5	X	X			X										
TDP23-3-081105		1250		5	X	X			X										
TDP24-11-081105		1315		1	X														
TDP25-9-081105		1348		7	X	X	X	X	X	X	X	X	X						
TDP16-GW-081105		845	W	16	X	X	X	X	X	X	X	X	X						
TDP18-GW-081105		1015		16	X	X	X	X	X	X	X	X	X						
TDP25-GW-081105		1355		16	X	X	X	X	X	X	X	X	X						
Special Shipment/Handling or Storage Requirements										Method of Shipment									
Relinquished by <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>ELI</u> Company Date <u>11/5/08</u> Time <u>1535</u>					Received by <u>Kimberly Riggs</u> Signature <u>Kimberly Riggs</u> Printed Name <u>AKR</u> Company Date <u>11/5/08</u> Time <u>1535</u>					Relinquished by Signature Printed Name Company Date _____ Time _____					Received by Signature Printed Name Company Date _____ Time _____				



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Lawson Boeing <sup>KB</sup>  
COC No: \_\_\_\_\_  
Assigned ARI Job No: NY44

Project Name: Phase II  
Delivered by: Anna  
Tracking No: \_\_\_\_\_

### Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO  
Were custody papers included with the cooler? YES NO  
Were custody papers properly filled out (ink, signed, etc.) YES NO  
Record cooler temperature (recommended 2.0-6.0 °C for chemistry) 0.8, 5.8, 6.0C

Cooler Accepted by: KR Date: 11/6/08 Time: 1535

**Complete custody forms and attach all shipping documents**

### Log-In Phase:

Was a temperature blank included in the cooler? YES NO  
What kind of packing material was used? ZL  
Was sufficient ice used (if appropriate)? YES NO  
Were all bottles sealed in individual plastic bags? YES NO  
Did all bottle arrive in good condition (unbroken)? YES NO  
Were all bottle labels complete and legible? YES NO  
Did all bottle labels and tags agree with custody papers? YES NO  
Were all bottles used correct for the requested analyses? YES NO  
Do any of the analyses (bottles) require preservation? (attach preservation checklist) YES NO  
Were all VOC vials free of air bubbles? NA YES NO  
Was sufficient amount of sample sent in each bottle? YES NO

Samples Logged by: AV Date: 11/6/08 Time: 10<sup>15</sup>

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

### Explain discrepancies or negative responses:

Samples TDP20-3-081105 thru TDP23-3-081105 all missing one sample, so logged as only 4 containers.  
Sample TDP16-GW-081105 does not have a total metals container, so was not logged for that analyte.  
Trip blanks added to end of list, and logged for VOA. one sample TDP18-GW-081105 two samples were marked TDP16-GW-081105, but were matched up by time.  
VOAs in samples G-H put on hold

By: AV

Date: 11/6/08

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP16-3-081105  
SAMPLE

Lab Sample ID: NY44A  
LIMS ID: 08-30162  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/25/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 11/12/08 14:35

Sample Amount: 4.33 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 27.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.2	< 1.2	U
74-83-9	Bromomethane	1.2	< 1.2	U
75-01-4	Vinyl Chloride	1.2	< 1.2	U
75-00-3	Chloroethane	1.2	< 1.2	U
75-09-2	Methylene Chloride	2.3	< 2.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.8</b>	<b>70</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.2</b>	<b>2.2</b>	
75-35-4	1,1-Dichloroethene	1.2	< 1.2	U
75-34-3	1,1-Dichloroethane	1.2	< 1.2	U
156-60-5	trans-1,2-Dichloroethene	1.2	< 1.2	U
156-59-2	cis-1,2-Dichloroethene	1.2	< 1.2	U
67-66-3	Chloroform	1.2	< 1.2	U
107-06-2	1,2-Dichloroethane	1.2	< 1.2	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.8</b>	<b>9.2</b>	
71-55-6	1,1,1-Trichloroethane	1.2	< 1.2	U
56-23-5	Carbon Tetrachloride	1.2	< 1.2	U
108-05-4	Vinyl Acetate	5.8	< 5.8	U
75-27-4	Bromodichloromethane	1.2	< 1.2	U
78-87-5	1,2-Dichloropropane	1.2	< 1.2	U
10061-01-5	cis-1,3-Dichloropropene	1.2	< 1.2	U
79-01-6	Trichloroethene	1.2	< 1.2	U
124-48-1	Dibromochloromethane	1.2	< 1.2	U
79-00-5	1,1,2-Trichloroethane	1.2	< 1.2	U
<b>71-43-2</b>	<b>Benzene</b>	<b>1.2</b>	<b>3.9</b>	
10061-02-6	trans-1,3-Dichloropropene	1.2	< 1.2	U
110-75-8	2-Chloroethylvinylether	5.8	< 5.8	U
75-25-2	Bromoform	1.2	< 1.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.8	< 5.8	U
591-78-6	2-Hexanone	5.8	< 5.8	U
127-18-4	Tetrachloroethene	1.2	< 1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1.2	< 1.2	U
108-88-3	Toluene	1.2	< 1.2	U
108-90-7	Chlorobenzene	1.2	< 1.2	U
100-41-4	Ethylbenzene	1.2	< 1.2	U
100-42-5	Styrene	1.2	< 1.2	U
75-69-4	Trichlorofluoromethane	1.2	< 1.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	2.3	< 2.3	U
1330-20-7	m,p-Xylene	1.2	< 1.2	U
95-47-6	o-Xylene	1.2	< 1.2	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	97.2%
Bromofluorobenzene	70.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP16-3-081105

Page 1 of 1

REANALYSIS

Lab Sample ID: NY44A

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30162

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.11 g-dry-wt

Date Analyzed: 11/13/08 14:02

Purge Volume: 5.0 mL

Moisture: 27.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.7	< 0.7	U
74-83-9	Bromomethane	0.7	< 0.7	U
75-01-4	Vinyl Chloride	0.7	< 0.7	U
75-00-3	Chloroethane	0.7	< 0.7	U
75-09-2	Methylene Chloride	1.4	< 1.4	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.5</b>	<b>20</b>	
75-15-0	Carbon Disulfide	0.7	< 0.7	U
75-35-4	1,1-Dichloroethene	0.7	< 0.7	U
75-34-3	1,1-Dichloroethane	0.7	< 0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
156-59-2	cis-1,2-Dichloroethene	0.7	< 0.7	U
67-66-3	Chloroform	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
78-93-3	2-Butanone	3.5	< 3.5	U
71-55-6	1,1,1-Trichloroethane	0.7	< 0.7	U
56-23-5	Carbon Tetrachloride	0.7	< 0.7	U
108-05-4	Vinyl Acetate	3.5	< 3.5	U
75-27-4	Bromodichloromethane	0.7	< 0.7	U
78-87-5	1,2-Dichloropropane	0.7	< 0.7	U
10061-01-5	cis-1,3-Dichloropropene	0.7	< 0.7	U
79-01-6	Trichloroethene	0.7	< 0.7	U
124-48-1	Dibromochloromethane	0.7	< 0.7	U
79-00-5	1,1,2-Trichloroethane	0.7	< 0.7	U
71-43-2	Benzene	0.7	< 0.7	U
10061-02-6	trans-1,3-Dichloropropene	0.7	< 0.7	U
110-75-8	2-Chloroethylvinylether	3.5	< 3.5	U
75-25-2	Bromoform	0.7	< 0.7	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.5	< 3.5	U
591-78-6	2-Hexanone	3.5	< 3.5	U
127-18-4	Tetrachloroethene	0.7	< 0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	0.7	< 0.7	U
108-88-3	Toluene	0.7	< 0.7	U
108-90-7	Chlorobenzene	0.7	< 0.7	U
100-41-4	Ethylbenzene	0.7	< 0.7	U
100-42-5	Styrene	0.7	< 0.7	U
75-69-4	Trichlorofluoromethane	0.7	< 0.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	< 1.4	U
1330-20-7	m,p-Xylene	0.7	< 0.7	U
95-47-6	o-Xylene	0.7	< 0.7	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	98.5%
Bromofluorobenzene	94.7%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP17-4-081105

Page 1 of 1

**SAMPLE**

Lab Sample ID: NY44B

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30163

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.04 g-dry-wt

Date Analyzed: 11/12/08 15:04

Purge Volume: 5.0 mL

Moisture: 24.0%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.0</b>	<b>57</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.0</b>	<b>5.6</b>	
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>5.0</b>	<b>9.0</b>	
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	98.9%
Bromofluorobenzene	84.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP18-4-081105  
SAMPLE

Lab Sample ID: NY44C

LIMS ID: 08-30164

Matrix: Soil

Data Release Authorized:

Reported: 11/25/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Instrument/Analyst: FINN5/PAB

Date Analyzed: 11/12/08 15:28

Sample Amount: 4.71 g-dry-wt

Purge Volume: 5.0 mL

Moisture: 26.8%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.1	< 2.1	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.3</b>	<b>22</b>	
75-15-0	Carbon Disulfide	1.1	< 1.1	U
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
78-93-3	2-Butanone	5.3	< 5.3	U
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.3	< 5.3	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
71-43-2	Benzene	1.1	< 1.1	U
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.3	< 5.3	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.3	< 5.3	U
591-78-6	2-Hexanone	5.3	< 5.3	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
108-88-3	Toluene	1.1	< 1.1	U
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.1	< 2.1	U
1330-20-7	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	105%
d8-Toluene	99.2%
Bromofluorobenzene	93.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP19-4-081105  
SAMPLE

Lab Sample ID: NY44D

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30165

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.07 g-dry-wt

Date Analyzed: 11/12/08 15:55

Purge Volume: 5.0 mL

Moisture: 27.3%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.9</b>	<b>77</b>	
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>4.9</b>	<b>5.2</b>	
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	4.9	< 4.9	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
<b>71-43-2</b>	<b>Benzene</b>	<b>1.0</b>	<b>1.3</b>	
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	4.9	< 4.9	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.9	< 4.9	U
591-78-6	2-Hexanone	4.9	< 4.9	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	104%
d8-Toluene	99.7%
Bromofluorobenzene	93.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP25-9-081105

Page 1 of 1

**SAMPLE**

Lab Sample ID: NY44J

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30171

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.50 g-dry-wt

Date Analyzed: 11/12/08 16:22

Purge Volume: 5.0 mL

Moisture: 4.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.7	< 0.7	U
74-83-9	Bromomethane	0.7	< 0.7	U
75-01-4	Vinyl Chloride	0.7	< 0.7	U
75-00-3	Chloroethane	0.7	< 0.7	U
75-09-2	Methylene Chloride	1.3	< 1.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.3</b>	<b>18</b>	
75-15-0	Carbon Disulfide	0.7	< 0.7	U
75-35-4	1,1-Dichloroethene	0.7	< 0.7	U
75-34-3	1,1-Dichloroethane	0.7	< 0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
156-59-2	cis-1,2-Dichloroethene	0.7	< 0.7	U
67-66-3	Chloroform	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
78-93-3	2-Butanone	3.3	< 3.3	U
71-55-6	1,1,1-Trichloroethane	0.7	< 0.7	U
56-23-5	Carbon Tetrachloride	0.7	< 0.7	U
108-05-4	Vinyl Acetate	3.3	< 3.3	U
75-27-4	Bromodichloromethane	0.7	< 0.7	U
78-87-5	1,2-Dichloropropane	0.7	< 0.7	U
10061-01-5	cis-1,3-Dichloropropene	0.7	< 0.7	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>0.7</b>	<b>6.2</b>	
124-48-1	Dibromochloromethane	0.7	< 0.7	U
79-00-5	1,1,2-Trichloroethane	0.7	< 0.7	U
71-43-2	Benzene	0.7	< 0.7	U
10061-02-6	trans-1,3-Dichloropropene	0.7	< 0.7	U
110-75-8	2-Chloroethylvinylether	3.3	< 3.3	U
75-25-2	Bromoform	0.7	< 0.7	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.3	< 3.3	U
591-78-6	2-Hexanone	3.3	< 3.3	U
127-18-4	Tetrachloroethene	0.7	< 0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	0.7	< 0.7	U
108-88-3	Toluene	0.7	< 0.7	U
108-90-7	Chlorobenzene	0.7	< 0.7	U
100-41-4	Ethylbenzene	0.7	< 0.7	U
100-42-5	Styrene	0.7	< 0.7	U
75-69-4	Trichlorofluoromethane	0.7	< 0.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	1.3	< 1.3	U
1330-20-7	m,p-Xylene	0.7	< 0.7	U
95-47-6	o-Xylene	0.7	< 0.7	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	101%
Bromofluorobenzene	99.3%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP16-GW-081105

Page 1 of 1

SAMPLE

Lab Sample ID: NY44K

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30172

Project: PHASE II

Matrix: Water

025173

Data Release Authorized:

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/07/08 13:55

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>0.3</b>	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	123%
d8-Toluene	101%
Bromofluorobenzene	88.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP18-GW-081105

Page 1 of 1

SAMPLE

Lab Sample ID: NY44L

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30173

Project: PHASE II

Matrix: Water

025173

Data Release Authorized:

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/07/08 14:23

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	124%
d8-Toluene	101%
Bromofluorobenzene	89.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP25-GW-081105

Page 1 of 1

SAMPLE

Lab Sample ID: NY44M

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30174

Project: PHASE II

Matrix: Water

025173

Data Release Authorized:

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/07/08 14:50

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>1.8</b>	
75-00-3	<b>Chloroethane</b>	<b>0.2</b>	<b>0.2</b>	
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	<b>Acetone</b>	<b>3.0</b>	<b>5.8</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	<b>1,1-Dichloroethane</b>	<b>0.2</b>	<b>1.9</b>	
156-60-5	<b>trans-1,2-Dichloroethene</b>	<b>0.2</b>	<b>0.5</b>	
156-59-2	<b>cis-1,2-Dichloroethene</b>	<b>0.2</b>	<b>48</b>	<b>E</b>
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	<b>1,1,1-Trichloroethane</b>	<b>0.2</b>	<b>0.4</b>	
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	<b>Trichloroethene</b>	<b>0.2</b>	<b>70</b>	<b>E</b>
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	<b>Tetrachloroethene</b>	<b>0.2</b>	<b>2.6</b>	
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	<b>Ethylbenzene</b>	<b>0.2</b>	<b>0.4</b>	
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	<b>o-Xylene</b>	<b>0.2</b>	<b>0.2</b>	

Reported in µg/L (ppb)

**Volatiles Surrogate Recovery**

d4-1,2-Dichloroethane	136%
d8-Toluene	87.8%
Bromofluorobenzene	96.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP25-GW-081105  
DILUTION

Page 1 of 1

Lab Sample ID: NY44M

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30174

Project: PHASE II

Matrix: Water

025173

Data Release Authorized: *[Signature]*

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: NT5/JZ

Sample Amount: 4.00 mL

Date Analyzed: 11/07/08 19:25

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	2.5	< 2.5	U
<b>75-01-4</b>	<b>Vinyl Chloride</b>	<b>1.0</b>	<b>1.8</b>	
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.5	< 2.5	U
67-64-1	Acetone	15	< 15	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>1.0</b>	<b>2.0</b>	
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>1.0</b>	<b>45</b>	
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	12	< 12	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>1.0</b>	<b>71</b>	
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	12	< 12	U
591-78-6	2-Hexanone	12	< 12	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.0</b>	<b>2.6</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	< 1.0	U
1330-20-7	m,p-Xylene	2.0	< 2.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	134%
d8-Toluene	86.8%
Bromofluorobenzene	90.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TRIP BLANKS  
SAMPLE

Page 1 of 1

Lab Sample ID: NY44N

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30175

Project: PHASE II

Matrix: Water

025173

Data Release Authorized: 

Date Sampled: 11/05/08

Reported: 11/25/08

Date Received: 11/05/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/07/08 13:01

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	132%
d8-Toluene	103%
Bromofluorobenzene	89.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: MB-110708  
METHOD BLANK

Lab Sample ID: MB-110708  
LIMS ID: 08-30175  
Matrix: Water  
Data Release Authorized:   
Reported: 11/25/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT5/JZ  
Date Analyzed: 11/07/08 12:33

Sample Amount: 20.0 mL  
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	125%
d8-Toluene	102%
Bromofluorobenzene	90.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-111208

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-111208

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30163

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 11/12/08 11:40

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	101%
Bromofluorobenzene	98.3%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-111308

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-111308

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30162

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 11/13/08 12:29

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	90.6%
d8-Toluene	101%
Bromofluorobenzene	97.5%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: NY44-The Boeing Company  
 Project: PHASE II  
 025173

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
NY44K	TDP16-GW-081105	20	123%	101%	88.0%	NA	0
NY44L	TDP18-GW-081105	20	124%	101%	89.5%	NA	0
NY44M	TDP25-GW-081105	20	136%	87.8%	96.8%	NA	0
NY44MRE	TDP25-GW-081105	20	134%	86.8%	90.2%	NA	0
MB-110708	Method Blank	20	125%	102%	90.8%	NA	0
LCS-110708	Lab Control	20	119%	98.8%	100%	NA	0
LCSD-110708	Lab Control Dup	20	116%	98.8%	102%	NA	0
NY44N	TRIP BLANKS	20	132%	103%	89.0%	NA	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

70-131  
 80-120  
 74-121  
 80-120

64-146  
 78-125  
 71-120  
 80-121

Prep Method: SW5030B  
 Log Number Range: 08-30172 to 08-30175

VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: NY44-The Boeing Company  
 Project: PHASE II  
 025173

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-111308	Method Blank	Low	90.6%	101%	97.5%	NA	0
LCS-111308	Lab Control	Low	91.6%	101%	100%	NA	0
LCSD-111308	Lab Control Dup	Low	93.5%	100%	100%	NA	0
NY44A	TDP16-3-081105	Low	102%	97.2%	70.9%	NA	0
NY44ARE	TDP16-3-081105	Low	108%	98.5%	94.7%	NA	0
MB-111208	Method Blank	Low	100%	101%	98.3%	NA	0
LCS-111208	Lab Control	Low	95.6%	101%	99.8%	NA	0
LCSD-111208	Lab Control Dup	Low	94.7%	99.9%	99.8%	NA	0
NY44B	TDP17-4-081105	Low	100%	98.9%	84.8%	NA	0
NY44C	TDP18-4-081105	Low	105%	99.2%	93.2%	NA	0
NY44D	TDP19-4-081105	Low	104%	99.7%	93.5%	NA	0
NY44J	TDP25-9-081105	Low	108%	101%	99.3%	NA	0

SW8260B	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	75-120	76-120	72-134	69-120
(TOL) = d8-Toluene	80-122	80-120	78-124	80-120
(BFB) = Bromofluorobenzene	79-120	80-120	66-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	79-120	80-120

Log Number Range: 08-30162 to 08-30171

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-110708

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-110708

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30175

Project: PHASE II

Matrix: Water

025173

Data Release Authorized:

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst LCS: NT5/JZ

Sample Amount LCS: 20.0 mL

LCSID: NT5/JZ

LCSID: 20.0 mL

Date Analyzed LCS: 11/07/08 11:36

Purge Volume LCS: 20.0 mL

LCSID: 11/07/08 12:06

LCSID: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSID	Spike Added-LCSID	LCSID Recovery	RPD
Chloromethane	4.0	4.0	100%	4.5	4.0	112%	11.8%
Bromomethane	4.4	4.0	110%	5.1	4.0	128%	14.7%
Vinyl Chloride	3.9	4.0	97.5%	4.4	4.0	110%	12.0%
Chloroethane	4.2	4.0	105%	4.8	4.0	120%	13.3%
Methylene Chloride	3.6	4.0	90.0%	4.2	4.0	105%	15.4%
Acetone	22.7	20.0	114%	23.0	20.0	115%	1.3%
Carbon Disulfide	4.2	4.0	105%	4.1	4.0	102%	2.4%
1,1-Dichloroethene	3.9	4.0	97.5%	4.4	4.0	110%	12.0%
1,1-Dichloroethane	3.9	4.0	97.5%	4.4	4.0	110%	12.0%
trans-1,2-Dichloroethene	3.7	4.0	92.5%	4.3	4.0	108%	15.0%
cis-1,2-Dichloroethene	3.6	4.0	90.0%	4.2	4.0	105%	15.4%
Chloroform	3.9	4.0	97.5%	4.4	4.0	110%	12.0%
1,2-Dichloroethane	3.6	4.0	90.0%	4.1	4.0	102%	13.0%
2-Butanone	21.9	20.0	110%	22.1	20.0	110%	0.9%
1,1,1-Trichloroethane	3.8	4.0	95.0%	4.4	4.0	110%	14.6%
Carbon Tetrachloride	3.6	4.0	90.0%	4.0	4.0	100%	10.5%
Vinyl Acetate	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
Bromodichloromethane	3.6	4.0	90.0%	4.1	4.0	102%	13.0%
1,2-Dichloropropane	3.5	4.0	87.5%	4.1	4.0	102%	15.8%
cis-1,3-Dichloropropene	3.5	4.0	87.5%	4.0	4.0	100%	13.3%
Trichloroethene	3.6	4.0	90.0%	4.1	4.0	102%	13.0%
Dibromochloromethane	3.5	4.0	87.5%	4.0	4.0	100%	13.3%
1,1,2-Trichloroethane	3.6	4.0	90.0%	4.1	4.0	102%	13.0%
Benzene	3.6	4.0	90.0%	4.2	4.0	105%	15.4%
trans-1,3-Dichloropropene	3.8	4.0	95.0%	4.2	4.0	105%	10.0%
2-Chloroethylvinylether	3.6	4.0	90.0%	3.8	4.0	95.0%	5.4%
Bromoform	3.6	4.0	90.0%	4.2	4.0	105%	15.4%
4-Methyl-2-Pentanone (MIBK)	22.0	20.0	110%	21.8	20.0	109%	0.9%
2-Hexanone	21.3	20.0	106%	21.0	20.0	105%	1.4%
Tetrachloroethene	3.3	4.0	82.5%	3.8	4.0	95.0%	14.1%
1,1,2,2-Tetrachloroethane	3.7	4.0	92.5%	4.2	4.0	105%	12.7%
Toluene	3.5	4.0	87.5%	4.1	4.0	102%	15.8%
Chlorobenzene	3.6	4.0	90.0%	4.1	4.0	102%	13.0%
Ethylbenzene	3.6	4.0	90.0%	4.2	4.0	105%	15.4%
Styrene	3.8	4.0	95.0%	4.4	4.0	110%	14.6%
Trichlorofluoromethane	3.8	4.0	95.0%	4.2	4.0	105%	10.0%
1,1,2-Trichloro-1,2,2-trifluoroethane	4.2	4.0	105%	4.2	4.0	105%	0.0%
m,p-Xylene	7.5	8.0	93.8%	8.6	8.0	108%	13.7%
o-Xylene	3.4	4.0	85.0%	4.1	4.0	102%	18.7%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

LCS    LCSID

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-110708

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110708

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30175

Project: PHASE II

Matrix: Water

025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
d4-1,2-Dichloroethane			119%			116%	
d8-Toluene			98.8%			98.8%	
Bromofluorobenzene			100%			102%	

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111208

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111208

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30163

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized:

Date Sampled: NA

Reported: 11/25/08

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCS: FINN5/PAB

LCS: 5.00 g-dry-wt

Date Analyzed LCS: 11/12/08 10:39

Purge Volume LCS: 5.0 mL

LCS: 11/12/08 11:13

LCS: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCS	LCS Recovery	RPD
Chloromethane	44.0	50.0	88.0%	47.4	50.0	94.8%	7.4%	
Bromomethane	35.6	50.0	71.2%	38.5	50.0	77.0%	7.8%	
Vinyl Chloride	45.4	50.0	90.8%	49.9	50.0	99.8%	9.4%	
Chloroethane	42.7	50.0	85.4%	47.8	50.0	95.6%	11.3%	
Methylene Chloride	45.7	50.0	91.4%	48.8	50.0	97.6%	6.6%	
Acetone	202	250	80.8%	212	250	84.8%	4.8%	
Carbon Disulfide	57.6	50.0	115%	63.0	50.0	126%	9.0%	
1,1-Dichloroethene	50.0	50.0	100%	54.3	50.0	109%	8.2%	
1,1-Dichloroethane	48.0	50.0	96.0%	52.1	50.0	104%	8.2%	
trans-1,2-Dichloroethene	48.3	50.0	96.6%	52.5	50.0	105%	8.3%	
cis-1,2-Dichloroethene	49.0	50.0	98.0%	53.2	50.0	106%	8.2%	
Chloroform	47.2	50.0	94.4%	50.0	50.0	100%	5.8%	
1,2-Dichloroethane	42.8	50.0	85.6%	44.8	50.0	89.6%	4.6%	
2-Butanone	228	250	91.2%	244	250	97.6%	6.8%	
1,1,1-Trichloroethane	46.5	50.0	93.0%	49.9	50.0	99.8%	7.1%	
Carbon Tetrachloride	44.8	50.0	89.6%	48.4	50.0	96.8%	7.7%	
Vinyl Acetate	50.5	50.0	101%	54.4	50.0	109%	7.4%	
Bromodichloromethane	49.0	50.0	98.0%	52.5	50.0	105%	6.9%	
1,2-Dichloropropane	46.7	50.0	93.4%	49.8	50.0	99.6%	6.4%	
cis-1,3-Dichloropropene	50.2	50.0	100%	53.6	50.0	107%	6.6%	
Trichloroethene	47.1	50.0	94.2%	50.2	50.0	100%	6.4%	
Dibromochloromethane	53.2	50.0	106%	56.2	50.0	112%	5.5%	
1,1,2-Trichloroethane	46.9	50.0	93.8%	50.3	50.0	101%	7.0%	
Benzene	49.3	50.0	98.6%	52.9	50.0	106%	7.0%	
trans-1,3-Dichloropropene	50.1	50.0	100%	54.3	50.0	109%	8.0%	
2-Chloroethylvinylether	52.5	50.0	105%	55.0	50.0	110%	4.7%	
Bromoform	51.8	50.0	104%	57.3	50.0	115%	10.1%	
4-Methyl-2-Pentanone (MIBK)	221	250	88.4%	246	250	98.4%	10.7%	
2-Hexanone	200	250	80.0%	228	250	91.2%	13.1%	
Tetrachloroethene	47.5	50.0	95.0%	51.2	50.0	102%	7.5%	
1,1,2,2-Tetrachloroethane	46.9	50.0	93.8%	50.9	50.0	102%	8.2%	
Toluene	47.0	50.0	94.0%	50.2	50.0	100%	6.6%	
Chlorobenzene	48.4	50.0	96.8%	52.0	50.0	104%	7.2%	
Ethylbenzene	51.0	50.0	102%	55.0	50.0	110%	7.5%	
Styrene	49.7	50.0	99.4%	53.8	50.0	108%	7.9%	
Trichlorofluoromethane	45.4	50.0	90.8%	49.4	50.0	98.8%	8.4%	
1,1,2-Trichloro-1,2,2-trifluoroethane	48.2	50.0	96.4%	52.0	50.0	104%	7.6%	
m,p-Xylene	99.0	100	99.0%	107	100	107%	7.8%	
o-Xylene	47.6	50.0	95.2%	51.5	50.0	103%	7.9%	

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 2 of 2

Sample ID: LCS-111208

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111208

LIMS ID: 08-30163

Matrix: Soil

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
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Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	95.6%	94.7%
d8-Toluene	101%	99.9%
Bromofluorobenzene	99.8%	99.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: LCS-111308  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-111308  
LIMS ID: 08-30162  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/25/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst LCS: FINN5/PAB  
LCSD: FINN5/PAB  
Date Analyzed LCS: 11/13/08 11:25  
LCSD: 11/13/08 12:03

Sample Amount LCS: 5.00 g-dry-wt  
LCSD: 5.00 g-dry-wt  
Purge Volume LCS: 5.0 mL  
LCSD: 5.0 mL  
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	43.8	50.0	87.6%	37.8	50.0	75.6%	14.7%
Bromomethane	36.0	50.0	72.0%	30.3	50.0	60.6%	17.2%
Vinyl Chloride	47.7	50.0	95.4%	39.7	50.0	79.4%	18.3%
Chloroethane	44.4	50.0	88.8%	39.2	50.0	78.4%	12.4%
Methylene Chloride	46.7	50.0	93.4%	42.2	50.0	84.4%	10.1%
Acetone	204	250	81.6%	186	250	74.4%	9.2%
Carbon Disulfide	62.7	50.0	125%	53.2	50.0	106%	16.4%
1,1-Dichloroethene	52.3	50.0	105%	45.0	50.0	90.0%	15.0%
1,1-Dichloroethane	50.2	50.0	100%	43.6	50.0	87.2%	14.1%
trans-1,2-Dichloroethene	51.8	50.0	104%	44.6	50.0	89.2%	14.9%
cis-1,2-Dichloroethene	51.5	50.0	103%	46.1	50.0	92.2%	11.1%
Chloroform	49.0	50.0	98.0%	42.7	50.0	85.4%	13.7%
1,2-Dichloroethane	42.9	50.0	85.8%	40.7	50.0	81.4%	5.3%
2-Butanone	217	250	86.8%	221	250	88.4%	1.8%
1,1,1-Trichloroethane	49.5	50.0	99.0%	41.7	50.0	83.4%	17.1%
Carbon Tetrachloride	48.4	50.0	96.8%	40.1	50.0	80.2%	18.8%
Vinyl Acetate	48.6	50.0	97.2%	47.6	50.0	95.2%	2.1%
Bromodichloromethane	51.0	50.0	102%	45.7	50.0	91.4%	11.0%
1,2-Dichloropropane	48.4	50.0	96.8%	43.8	50.0	87.6%	10.0%
cis-1,3-Dichloropropene	52.0	50.0	104%	46.8	50.0	93.6%	10.5%
Trichloroethene	50.0	50.0	100%	43.0	50.0	86.0%	15.1%
Dibromochloromethane	53.0	50.0	106%	49.7	50.0	99.4%	6.4%
1,1,2-Trichloroethane	46.6	50.0	93.2%	45.3	50.0	90.6%	2.8%
Benzene	53.2	50.0	106%	46.7	50.0	93.4%	13.0%
trans-1,3-Dichloropropene	51.6	50.0	103%	47.6	50.0	95.2%	8.1%
2-Chloroethylvinylether	52.0	50.0	104%	49.9	50.0	99.8%	4.1%
Bromoform	52.9	50.0	106%	50.6	50.0	101%	4.4%
4-Methyl-2-Pentanone (MIBK)	214	250	85.6%	219	250	87.6%	2.3%
2-Hexanone	186	250	74.4%	192	250	76.8%	3.2%
Tetrachloroethene	53.0	50.0	106%	44.0	50.0	88.0%	18.6%
1,1,2,2-Tetrachloroethane	45.9	50.0	91.8%	44.5	50.0	89.0%	3.1%
Toluene	49.9	50.0	99.8%	43.6	50.0	87.2%	13.5%
Chlorobenzene	52.0	50.0	104%	45.3	50.0	90.6%	13.8%
Ethylbenzene	55.2	50.0	110%	46.8	50.0	93.6%	16.5%
Styrene	52.7	50.0	105%	46.7	50.0	93.4%	12.1%
Trichlorofluoromethane	47.4	50.0	94.8%	37.3	50.0	74.6%	23.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	56.4	50.0	113%	42.6	50.0	85.2%	27.9%
m,p-Xylene	105	100	105%	92.1	100	92.1%	13.1%
o-Xylene	50.7	50.0	101%	43.9	50.0	87.8%	14.4%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: LCS-111308  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-111308  
LIMS ID: 08-30162  
Matrix: Soil

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
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Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	91.6%	93.5%
d8-Toluene	101%	100%
Bromofluorobenzene	100%	100%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP16-3-081105  
SAMPLE

Lab Sample ID: NY44A  
LIMS ID: 08-30162  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 21:53  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.07 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 27.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	62	< 62 U
111-44-4	Bis-(2-Chloroethyl) Ether	62	< 62 U
95-57-8	2-Chlorophenol	62	< 62 U
541-73-1	1,3-Dichlorobenzene	62	< 62 U
106-46-7	1,4-Dichlorobenzene	62	< 62 U
100-51-6	Benzyl Alcohol	62	< 62 U
95-50-1	1,2-Dichlorobenzene	62	< 62 U
95-48-7	2-Methylphenol	62	< 62 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	62	< 62 U
106-44-5	4-Methylphenol	62	< 62 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	62	< 62 U
98-95-3	Nitrobenzene	62	< 62 U
78-59-1	Isophorone	62	< 62 U
88-75-5	2-Nitrophenol	62	< 62 U
105-67-9	2,4-Dimethylphenol	62	< 62 U
65-85-0	Benzoic Acid	620	< 620 U
111-91-1	bis(2-Chloroethoxy) Methane	62	< 62 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	62	< 62 U
91-20-3	Naphthalene	62	< 62 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	62	< 62 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	62	< 62 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	62	< 62 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	62	< 62 U
208-96-8	Acenaphthylene	62	< 62 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	62	< 62 U
51-28-5	2,4-Dinitrophenol	620	< 620 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	62	< 62 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP16-3-081105  
SAMPLE

Lab Sample ID: NY44A  
LIMS ID: 08-30162  
Matrix: Soil  
Date Analyzed: 11/18/08 21:53

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	62	< 62 U
7005-72-3	4-Chlorophenyl-phenylether	62	< 62 U
86-73-7	Fluorene	62	< 62 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	620	< 620 U
86-30-6	N-Nitrosodiphenylamine	62	< 62 U
101-55-3	4-Bromophenyl-phenylether	62	< 62 U
118-74-1	Hexachlorobenzene	62	< 62 U
87-86-5	Pentachlorophenol	310	< 310 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>62</b>	<b>71</b>
86-74-8	Carbazole	62	< 62 U
120-12-7	Anthracene	62	< 62 U
84-74-2	Di-n-Butylphthalate	62	< 62 U
206-44-0	Fluoranthene	62	< 62 U
129-00-0	Pyrene	62	< 62 U
85-68-7	Butylbenzylphthalate	62	< 62 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo (a) anthracene	62	< 62 U
117-81-7	bis (2-Ethylhexyl) phthalate	62	< 62 U
218-01-9	Chrysene	62	< 62 U
117-84-0	Di-n-Octyl phthalate	62	< 62 U
205-99-2	Benzo (b) fluoranthene	62	< 62 U
207-08-9	Benzo (k) fluoranthene	62	< 62 U
50-32-8	Benzo (a) pyrene	62	< 62 U
193-39-5	Indeno (1,2,3-cd) pyrene	62	< 62 U
53-70-3	Dibenz (a,h) anthracene	62	< 62 U
191-24-2	Benzo (g,h,i) perylene	62	< 62 U
90-12-0	1-Methylnaphthalene	62	< 62 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	73.2%	2-Fluorobiphenyl	79.6%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	81.2%
d5-Phenol	77.1%	2-Fluorophenol	74.1%
2,4,6-Tribromophenol	91.2%	d4-2-Chlorophenol	78.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP18-4-081105  
SAMPLE

Lab Sample ID: NY44C  
LIMS ID: 08-30164  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 22:28  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 8.06 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 26.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	62	< 62 U
111-44-4	Bis-(2-Chloroethyl) Ether	62	< 62 U
95-57-8	2-Chlorophenol	62	< 62 U
541-73-1	1,3-Dichlorobenzene	62	< 62 U
106-46-7	1,4-Dichlorobenzene	62	< 62 U
100-51-6	Benzyl Alcohol	62	< 62 U
95-50-1	1,2-Dichlorobenzene	62	< 62 U
95-48-7	2-Methylphenol	62	< 62 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	62	< 62 U
106-44-5	4-Methylphenol	62	< 62 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	62	< 62 U
98-95-3	Nitrobenzene	62	< 62 U
78-59-1	Isophorone	62	< 62 U
88-75-5	2-Nitrophenol	62	< 62 U
105-67-9	2,4-Dimethylphenol	62	< 62 U
65-85-0	Benzoic Acid	620	< 620 U
111-91-1	bis(2-Chloroethoxy) Methane	62	< 62 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	62	< 62 U
<b>91-20-3</b>	<b>Naphthalene</b>	<b>62</b>	<b>110</b>
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	62	< 62 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	62	< 62 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	62	< 62 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	62	< 62 U
208-96-8	Acenaphthylene	62	< 62 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	62	< 62 U
51-28-5	2,4-Dinitrophenol	620	< 620 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	62	< 62 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP18-4-081105  
SAMPLE

Lab Sample ID: NY44C  
LIMS ID: 08-30164  
Matrix: Soil  
Date Analyzed: 11/18/08 22:28

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	62	< 62 U
7005-72-3	4-Chlorophenyl-phenylether	62	< 62 U
86-73-7	Fluorene	62	< 62 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	620	< 620 U
86-30-6	N-Nitrosodiphenylamine	62	< 62 U
101-55-3	4-Bromophenyl-phenylether	62	< 62 U
118-74-1	Hexachlorobenzene	62	< 62 U
87-86-5	Pentachlorophenol	310	< 310 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>62</b>	<b>120</b>
86-74-8	Carbazole	62	< 62 U
120-12-7	Anthracene	62	< 62 U
84-74-2	Di-n-Butylphthalate	62	< 62 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>62</b>	<b>150</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>62</b>	<b>120</b>
85-68-7	Butylbenzylphthalate	62	< 62 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo (a) anthracene	62	< 62 U
117-81-7	bis (2-Ethylhexyl) phthalate	62	< 62 U
<b>218-01-9</b>	<b>Chrysene</b>	<b>62</b>	<b>91</b>
117-84-0	Di-n-Octyl phthalate	62	< 62 U
<b>205-99-2</b>	<b>Benzo (b) fluoranthene</b>	<b>62</b>	<b>76</b>
207-08-9	Benzo (k) fluoranthene	62	< 62 U
50-32-8	Benzo (a) pyrene	62	< 62 U
193-39-5	Indeno (1,2,3-cd) pyrene	62	< 62 U
53-70-3	Dibenz (a,h) anthracene	62	< 62 U
191-24-2	Benzo (g,h,i) perylene	62	< 62 U
90-12-0	1-Methylnaphthalene	62	< 62 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	84.8%	2-Fluorobiphenyl	88.4%
d14-p-Terphenyl	87.6%	d4-1,2-Dichlorobenzene	88.0%
d5-Phenol	81.1%	2-Fluorophenol	78.1%
2,4,6-Tribromophenol	103%	d4-2-Chlorophenol	84.3%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP25-9-081105  
SAMPLE

Lab Sample ID: NY44J  
LIMS ID: 08-30171  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/10/08  
Date Analyzed: 11/20/08 20:45  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 7.79 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 4.6%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	64	< 64 U
111-44-4	Bis-(2-Chloroethyl) Ether	64	< 64 U
95-57-8	2-Chlorophenol	64	< 64 U
541-73-1	1,3-Dichlorobenzene	64	< 64 U
106-46-7	1,4-Dichlorobenzene	64	< 64 U
100-51-6	Benzyl Alcohol	64	< 64 U
95-50-1	1,2-Dichlorobenzene	64	< 64 U
95-48-7	2-Methylphenol	64	< 64 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	64	< 64 U
106-44-5	4-Methylphenol	64	< 64 U
621-64-7	N-Nitroso-Di-N-Propylamine	320	< 320 U
67-72-1	Hexachloroethane	64	< 64 U
98-95-3	Nitrobenzene	64	< 64 U
78-59-1	Isophorone	64	< 64 U
88-75-5	2-Nitrophenol	64	< 64 U
105-67-9	2,4-Dimethylphenol	64	< 64 U
65-85-0	Benzoic Acid	640	< 640 U
111-91-1	bis(2-Chloroethoxy) Methane	64	< 64 U
120-83-2	2,4-Dichlorophenol	320	< 320 U
120-82-1	1,2,4-Trichlorobenzene	64	< 64 U
91-20-3	Naphthalene	64	< 64 U
106-47-8	4-Chloroaniline	320	< 320 U
87-68-3	Hexachlorobutadiene	64	< 64 U
59-50-7	4-Chloro-3-methylphenol	320	< 320 U
91-57-6	2-Methylnaphthalene	64	< 64 U
77-47-4	Hexachlorocyclopentadiene	320	< 320 U
88-06-2	2,4,6-Trichlorophenol	320	< 320 U
95-95-4	2,4,5-Trichlorophenol	320	< 320 U
91-58-7	2-Chloronaphthalene	64	< 64 U
88-74-4	2-Nitroaniline	320	< 320 U
131-11-3	Dimethylphthalate	64	< 64 U
208-96-8	Acenaphthylene	64	< 64 U
99-09-2	3-Nitroaniline	320	< 320 U
83-32-9	Acenaphthene	64	< 64 U
51-28-5	2,4-Dinitrophenol	640	< 640 U
100-02-7	4-Nitrophenol	320	< 320 U
132-64-9	Dibenzofuran	64	< 64 U
606-20-2	2,6-Dinitrotoluene	320	< 320 U
121-14-2	2,4-Dinitrotoluene	320	< 320 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP25-9-081105  
SAMPLE

Lab Sample ID: NY44J  
LIMS ID: 08-30171  
Matrix: Soil  
Date Analyzed: 11/20/08 20:45

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	64	< 64 U
7005-72-3	4-Chlorophenyl-phenylether	64	< 64 U
86-73-7	Fluorene	64	< 64 U
100-01-6	4-Nitroaniline	320	< 320 U
534-52-1	4,6-Dinitro-2-Methylphenol	640	< 640 U
86-30-6	N-Nitrosodiphenylamine	64	< 64 U
101-55-3	4-Bromophenyl-phenylether	64	< 64 U
118-74-1	Hexachlorobenzene	64	< 64 U
87-86-5	Pentachlorophenol	320	< 320 U
85-01-8	Phenanthrene	64	< 64 U
86-74-8	Carbazole	64	< 64 U
120-12-7	Anthracene	64	< 64 U
84-74-2	Di-n-Butylphthalate	64	< 64 U
206-44-0	Fluoranthene	64	< 64 U
129-00-0	Pyrene	64	< 64 U
85-68-7	Butylbenzylphthalate	64	< 64 U
91-94-1	3,3'-Dichlorobenzidine	320	< 320 U
56-55-3	Benzo (a) anthracene	64	< 64 U
117-81-7	bis (2-Ethylhexyl) phthalate	64	< 64 U
218-01-9	Chrysene	64	< 64 U
117-84-0	Di-n-Octyl phthalate	64	< 64 U
205-99-2	Benzo (b) fluoranthene	64	< 64 U
207-08-9	Benzo (k) fluoranthene	64	< 64 U
50-32-8	Benzo (a) pyrene	64	< 64 U
193-39-5	Indeno (1,2,3-cd) pyrene	64	< 64 U
53-70-3	Dibenz (a, h) anthracene	64	< 64 U
191-24-2	Benzo (g, h, i) perylene	64	< 64 U
90-12-0	1-Methylnaphthalene	64	< 64 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	80.0%	2-Fluorobiphenyl	92.8%
d14-p-Terphenyl	82.8%	d4-1,2-Dichlorobenzene	81.6%
d5-Phenol	77.9%	2-Fluorophenol	75.5%
2,4,6-Tribromophenol	95.2%	d4-2-Chlorophenol	82.4%

**SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-111008	88.4%	95.6%	104%	93.2%	89.1%	84.3%	111%	90.7%	0	
LCS-111008	92.0%	102%	115%	92.8%	83.7%	87.2%	122%	93.1%	0	
LCSD-111008	92.0%	106%	117%	90.8%	81.6%	86.4%	125%	93.1%	0	
TDP16-3-081105	73.2%	79.6%	79.2%	81.2%	77.1%	74.1%	91.2%	78.7%	0	
TDP18-4-081105	84.8%	88.4%	87.6%	88.0%	81.1%	78.1%	103%	84.3%	0	
TDP25-9-081105	80.0%	92.8%	82.8%	81.6%	77.9%	75.5%	95.2%	82.4%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546  
Log Number Range: 08-30162 to 08-30171

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-111008  
LCS/LCSD

Lab Sample ID: LCS-111008  
LIMS ID: 08-30162  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted LCS/LCSD: 11/10/08

Sample Amount LCS: 7.50 g  
LCSD: 7.50 g

Date Analyzed LCS: 11/18/08 12:31  
LCSD: 11/18/08 13:06

Final Extract Volume LCS: 0.5 mL  
LCSD: 0.5 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	1790	1670	107%	1810	1670	108%	1.1%	
Bis-(2-Chloroethyl) Ether	1530	1670	91.6%	1550	1670	92.8%	1.3%	
2-Chlorophenol	1660	1670	99.4%	1690	1670	101%	1.8%	
1,3-Dichlorobenzene	1610	1670	96.4%	1650	1670	98.8%	2.5%	
1,4-Dichlorobenzene	1640	1670	98.2%	1650	1670	98.8%	0.6%	
Benzyl Alcohol	2960	3330	88.9%	2940	3330	88.3%	0.7%	
1,2-Dichlorobenzene	1650	1670	98.8%	1680	1670	101%	1.8%	
2-Methylphenol	1690	1670	101%	1690	1670	101%	0.0%	
2,2'-Oxybis(1-Chloropropane)	1410	1670	84.4%	1430	1670	85.6%	1.4%	
4-Methylphenol	3310	3330	99.4%	3320	3330	99.7%	0.3%	
N-Nitroso-Di-N-Propylamine	1500	1670	89.8%	1510	1670	90.4%	0.7%	
Hexachloroethane	1590	1670	95.2%	1630	1670	97.6%	2.5%	
Nitrobenzene	1410	1670	84.4%	1430	1670	85.6%	1.4%	
Isophorone	1720	1670	103%	1750	1670	105%	1.7%	
2-Nitrophenol	1830	1670	110%	1860	1670	111%	1.6%	
2,4-Dimethylphenol	1640	1670	98.2%	1680	1670	101%	2.4%	
Benzoic Acid	1400	5000	28.0%	1390	5000	27.8%	0.7%	
bis(2-Chloroethoxy) Methane	1660	1670	99.4%	1680	1670	101%	1.2%	
2,4-Dichlorophenol	1990	1670	119%	2070	1670	124%	3.9%	
1,2,4-Trichlorobenzene	1750	1670	105%	1830	1670	110%	4.5%	
Naphthalene	1780	1670	107%	1830	1670	110%	2.8%	
4-Chloroaniline	7350	4000	184%	7330	4000	183%	0.3%	
Hexachlorobutadiene	1820	1670	109%	1870	1670	112%	2.7%	
4-Chloro-3-methylphenol	1940	1670	116%	1980	1670	119%	2.0%	
2-Methylnaphthalene	1840	1670	110%	1900	1670	114%	3.2%	
Hexachlorocyclopentadiene	4970	5000	99.4%	5190	5000	104%	4.3%	
2,4,6-Trichlorophenol	1960	1670	117%	2010	1670	120%	2.5%	
2,4,5-Trichlorophenol	1910	1670	114%	2040	1670	122%	6.6%	
2-Chloronaphthalene	2000	1670	120%	2090	1670	125%	4.4%	
2-Nitroaniline	1880	1670	113%	1950	1670	117%	3.7%	
Dimethylphthalate	1890	1670	113%	1940	1670	116%	2.6%	
Acenaphthylene	1900	1670	114%	1960	1670	117%	3.1%	
3-Nitroaniline	5070	4270	119%	5090	4270	119%	0.4%	
Acenaphthene	1890	1670	113%	1960	1670	117%	3.6%	

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCSD-111008  
LCS/LCSD

Lab Sample ID: LCS-111008  
LIMS ID: 08-30162  
Matrix: Soil  
Date Analyzed LCS: 11/18/08 12:31  
LCSD: 11/18/08 13:06

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	6520	5000	130%	6880	5000	138%	5.4%
4-Nitrophenol	2170	1670	130%	2090	1670	125%	3.8%
Dibenzofuran	1900	1670	114%	2020	1670	121%	6.1%
2,6-Dinitrotoluene	2230	1670	134%	2260	1670	135%	1.3%
2,4-Dinitrotoluene	2210	1670	132%	2340	1670	140%	5.7%
Diethylphthalate	2010	1670	120%	2080	1670	125%	3.4%
4-Chlorophenyl-phenylether	2010	1670	120%	2150	1670	129%	6.7%
Fluorene	2040	1670	122%	2170	1670	130%	6.2%
4-Nitroaniline	2040	1670	122%	2120	1670	127%	3.8%
4,6-Dinitro-2-Methylphenol	4040	5000	80.8%	4240	5000	84.8%	4.8%
N-Nitrosodiphenylamine	1880	1670	113%	1940	1670	116%	3.1%
4-Bromophenyl-phenylether	1890	1670	113%	2030	1670	122%	7.1%
Hexachlorobenzene	1980	1670	119%	2160	1670	129%	8.7%
Pentachlorophenol	2140	1670	128%	2180	1670	131%	1.9%
Phenanthrene	1900	1670	114%	1990	1670	119%	4.6%
Carbazole	1930	1670	116%	2000	1670	120%	3.6%
Anthracene	1890	1670	113%	2010	1670	120%	6.2%
Di-n-Butylphthalate	1920	1670	115%	1980	1670	119%	3.1%
Fluoranthene	1980	1670	119%	2040	1670	122%	3.0%
Pyrene	1960	1670	117%	2070	1670	124%	5.5%
Butylbenzylphthalate	1950	1670	117%	2000	1670	120%	2.5%
3,3'-Dichlorobenzidine	4990	4270	117%	5080	4270	119%	1.8%
Benzo(a)anthracene	1930	1670	116%	1980	1670	119%	2.6%
bis(2-Ethylhexyl)phthalate	1930	1670	116%	1970	1670	118%	2.1%
Chrysene	1970	1670	118%	2020	1670	121%	2.5%
Di-n-Octyl phthalate	1910	1670	114%	1940	1670	116%	1.6%
Benzo(b)fluoranthene	2020	1670	121%	2050	1670	123%	1.5%
Benzo(k)fluoranthene	1940	1670	116%	1990	1670	119%	2.5%
Benzo(a)pyrene	1680	1670	101%	1710	1670	102%	1.8%
Indeno(1,2,3-cd)pyrene	1830	1670	110%	1870	1670	112%	2.2%
Dibenz(a,h)anthracene	1850	1670	111%	1900	1670	114%	2.7%
Benzo(g,h,i)perylene	1650	1670	98.8%	1700	1670	102%	3.0%
1-Methylnaphthalene	1940	1670	116%	2000	1670	120%	3.0%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	92.0%	92.0%
2-Fluorobiphenyl	102%	106%
d14-p-Terphenyl	115%	117%
d4-1,2-Dichlorobenzene	92.8%	90.8%
d5-Phenol	83.7%	81.6%
2-Fluorophenol	87.2%	86.4%
2,4,6-Tribromophenol	122%	125%
d4-2-Chlorophenol	93.1%	93.1%

Results reported in  $\mu\text{g}/\text{kg}$   
RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-111008  
METHOD BLANK

Lab Sample ID: MB-111008  
LIMS ID: 08-30162  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/10/08  
Date Analyzed: 11/18/08 11:56  
Instrument/Analyst: NT4/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-111008  
METHOD BLANK

Lab Sample ID: MB-111008  
LIMS ID: 08-30162  
Matrix: Soil  
Date Analyzed: 11/18/08 11:56

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo(a)anthracene	67	< 67 U
117-81-7	bis(2-Ethylhexyl)phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo(b)fluoranthene	67	< 67 U
207-08-9	Benzo(k)fluoranthene	67	< 67 U
50-32-8	Benzo(a)pyrene	67	< 67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67	< 67 U
53-70-3	Dibenz(a,h)anthracene	67	< 67 U
191-24-2	Benzo(g,h,i)perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	88.4%	2-Fluorobiphenyl	95.6%
d14-p-Terphenyl	104%	d4-1,2-Dichlorobenzene	93.2%
d5-Phenol	89.1%	2-Fluorophenol	84.3%
2,4,6-Tribromophenol	111%	d4-2-Chlorophenol	90.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP16-GW-081105  
SAMPLE

Lab Sample ID: NY44K  
LIMS ID: 08-30172  
Matrix: Water  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/07/08  
Date Analyzed: 11/20/08 01:06  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
<b>83-32-9</b>	<b>Acenaphthene</b>	<b>1.0</b>	<b>28</b>
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP16-GW-081105  
SAMPLE

Lab Sample ID: NY44K  
LIMS ID: 08-30172  
Matrix: Water  
Date Analyzed: 11/20/08 01:06

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>1.0</b>	<b>4.7</b>
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.4%	2-Fluorobiphenyl	69.2%
d14-p-Terphenyl	80.4%	d4-1,2-Dichlorobenzene	55.2%
d5-Phenol	62.7%	2-Fluorophenol	56.8%
2,4,6-Tribromophenol	94.4%	d4-2-Chlorophenol	65.3%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP18-GW-081105  
SAMPLE

Lab Sample ID: NY44L  
LIMS ID: 08-30173  
Matrix: Water  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/07/08  
Date Analyzed: 11/20/08 01:41  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

Lab Sample ID: NY44L  
 LIMS ID: 08-30173  
 Matrix: Water  
 Date Analyzed: 11/20/08 01:41

QC Report No: NY44-The Boeing Company  
 Project: PHASE II  
 025173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>1.8</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	76.0%
d14-p-Terphenyl	90.4%	d4-1,2-Dichlorobenzene	44.4%
d5-Phenol	67.2%	2-Fluorophenol	53.9%
2,4,6-Tribromophenol	104%	d4-2-Chlorophenol	65.3%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: TDP25-GW-081105  
SAMPLE

Lab Sample ID: NY44M  
LIMS ID: 08-30174  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/07/08  
Date Analyzed: 11/20/08 21:20  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP25-GW-081105  
SAMPLE

Lab Sample ID: NY44M  
LIMS ID: 08-30174  
Matrix: Water  
Date Analyzed: 11/20/08 21:20

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>1.3</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	69.6%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	65.6%	d4-1,2-Dichlorobenzene	59.2%
d5-Phenol	67.2%	2-Fluorophenol	65.3%
2,4,6-Tribromophenol	84.5%	d4-2-Chlorophenol	71.5%

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-110708	60.0%	58.0%	76.8%	54.0%	60.0%	56.5%	60.8%	63.5%	0	
LCS-110708	69.6%	80.8%	94.0%	59.6%	69.1%	65.9%	94.7%	71.7%	0	
LCSD-110708	75.6%	82.8%	96.8%	60.0%	74.9%	69.6%	96.5%	76.8%	0	
TDP16-GW-081105	64.4%	69.2%	80.4%	55.2%	62.7%	56.8%	94.4%	65.3%	0	
TDP18-GW-081105	64.8%	76.0%	90.4%	44.4%	67.2%	53.9%	104%	65.3%	0	
TDP25-GW-081105	69.6%	72.8%	65.6%	59.2%	67.2%	65.3%	84.5%	71.5%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C  
Log Number Range: 08-30172 to 08-30174

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-110708  
LCS/LCSD

Lab Sample ID: LCS-110708  
LIMS ID: 08-30172  
Matrix: Water  
Data Release Authorized:  
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted LCS/LCSD: 11/07/08

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 11/19/08 16:57  
LCSD: 11/19/08 17:32

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	18.5	25.0	74.0%	20.4	25.0	81.6%	9.8%
Bis-(2-Chloroethyl) Ether	17.7	25.0	70.8%	18.8	25.0	75.2%	6.0%
2-Chlorophenol	19.4	25.0	77.6%	20.5	25.0	82.0%	5.5%
1,3-Dichlorobenzene	10.3	25.0	41.2%	13.4	25.0	53.6%	26.2%
1,4-Dichlorobenzene	11.0	25.0	44.0%	13.7	25.0	54.8%	21.9%
Benzyl Alcohol	31.6	50.0	63.2%	34.3	50.0	68.6%	8.2%
1,2-Dichlorobenzene	11.9	25.0	47.6%	14.6	25.0	58.4%	20.4%
2-Methylphenol	18.2	25.0	72.8%	19.6	25.0	78.4%	7.4%
2,2'-Oxybis(1-Chloropropane)	15.7	25.0	62.8%	16.8	25.0	67.2%	6.8%
4-Methylphenol	36.7	50.0	73.4%	40.1	50.0	80.2%	8.9%
N-Nitroso-Di-N-Propylamine	15.6	25.0	62.4%	16.9	25.0	67.6%	8.0%
Hexachloroethane	7.1	25.0	28.4%	12.0	25.0	48.0%	50.8%
Nitrobenzene	16.1	25.0	64.4%	17.2	25.0	68.8%	6.6%
Isophorone	20.0	25.0	80.0%	20.3	25.0	81.2%	1.5%
2-Nitrophenol	20.6	25.0	82.4%	22.6	25.0	90.4%	9.3%
2,4-Dimethylphenol	15.6	25.0	62.4%	15.9	25.0	63.6%	1.9%
Benzoic Acid	68.8	75.0	91.7%	72.4	75.0	96.5%	5.1%
bis(2-Chloroethoxy) Methane	19.0	25.0	76.0%	20.0	25.0	80.0%	5.1%
2,4-Dichlorophenol	20.9	25.0	83.6%	23.0	25.0	92.0%	9.6%
1,2,4-Trichlorobenzene	12.7	25.0	50.8%	15.6	25.0	62.4%	20.5%
Naphthalene	15.7	25.0	62.8%	17.6	25.0	70.4%	11.4%
4-Chloroaniline	61.9	60.0	103%	71.5	60.0	119%	14.4%
Hexachlorobutadiene	8.2	25.0	32.8%	14.0	25.0	56.0%	52.5%
4-Chloro-3-methylphenol	22.3	25.0	89.2%	22.7	25.0	90.8%	1.8%
2-Methylnaphthalene	17.3	25.0	69.2%	19.0	25.0	76.0%	9.4%
Hexachlorocyclopentadiene	29.3	75.0	39.1%	38.6	75.0	51.5%	27.4%
2,4,6-Trichlorophenol	24.4	25.0	97.6%	24.6	25.0	98.4%	0.8%
2,4,5-Trichlorophenol	23.5	25.0	94.0%	23.9	25.0	95.6%	1.7%
2-Chloronaphthalene	21.5	25.0	86.0%	22.3	25.0	89.2%	3.7%
2-Nitroaniline	22.1	25.0	88.4%	22.7	25.0	90.8%	2.7%
Dimethylphthalate	22.7	25.0	90.8%	23.1	25.0	92.4%	1.7%
Acenaphthylene	21.6	25.0	86.4%	22.4	25.0	89.6%	3.6%
3-Nitroaniline	56.9	64.0	88.9%	60.7	64.0	94.8%	6.5%
Acenaphthene	21.8	25.0	87.2%	22.0	25.0	88.0%	0.9%
2,4-Dinitrophenol	105	75.0	140%	111	75.0	148%	5.6%
4-Nitrophenol	23.0	25.0	92.0%	23.9	25.0	95.6%	3.8%
Dibenzofuran	22.5	25.0	90.0%	22.8	25.0	91.2%	1.3%
2,6-Dinitrotoluene	26.7	25.0	107%	26.7	25.0	107%	0.0%
2,4-Dinitrotoluene	26.0	25.0	104%	26.9	25.0	108%	3.4%
Diethylphthalate	23.7	25.0	94.8%	24.0	25.0	96.0%	1.3%
4-Chlorophenyl-phenylether	22.7	25.0	90.8%	22.8	25.0	91.2%	0.4%
Fluorene	22.8	25.0	91.2%	22.5	25.0	90.0%	1.3%
4-Nitroaniline	21.6	25.0	86.4%	22.6	25.0	90.4%	4.5%
4,6-Dinitro-2-Methylphenol	54.0	75.0	72.0%	56.4	75.0	75.2%	4.3%
N-Nitrosodiphenylamine	21.8	25.0	87.2%	23.5	25.0	94.0%	7.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-110708  
LCS/LCSD

Lab Sample ID: LCS-110708  
LIMS ID: 08-30172  
Matrix: Water  
Date Analyzed: 11/19/08 16:57

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	24.3	25.0	97.2%	23.9	25.0	95.6%	1.7%
Hexachlorobenzene	26.0	25.0	104%	25.4	25.0	102%	2.3%
Pentachlorophenol	26.3	25.0	105%	26.0	25.0	104%	1.1%
Phenanthrene	23.4	28.0	83.6%	23.7	28.0	84.6%	1.3%
Carbazole	22.9	25.0	91.6%	23.8	25.0	95.2%	3.9%
Anthracene	21.3	25.0	85.2%	21.2	25.0	84.8%	0.5%
Di-n-Butylphthalate	23.4	25.0	93.6%	23.4	25.0	93.6%	0.0%
Fluoranthene	23.7	25.0	94.8%	23.3	25.0	93.2%	1.7%
Pyrene	24.5	25.0	98.0%	24.5	25.0	98.0%	0.0%
Butylbenzylphthalate	24.3	25.0	97.2%	24.5	25.0	98.0%	0.8%
3,3'-Dichlorobenzidine	50.5	64.0	78.9%	54.8	64.0	85.6%	8.2%
Benzo(a)anthracene	24.2	25.0	96.8%	24.1	25.0	96.4%	0.4%
bis(2-Ethylhexyl)phthalate	23.6	25.0	94.4%	23.0	25.0	92.0%	2.6%
Chrysene	24.1	28.0	86.1%	24.1	28.0	86.1%	0.0%
Di-n-Octyl phthalate	23.7	25.0	94.8%	23.3	25.0	93.2%	1.7%
Benzo(b)fluoranthene	25.3	25.0	101%	24.3	25.0	97.2%	4.0%
Benzo(k)fluoranthene	22.5	28.0	80.4%	22.1	28.0	78.9%	1.8%
Benzo(a)pyrene	20.0	25.0	80.0%	19.1	25.0	76.4%	4.6%
Indeno(1,2,3-cd)pyrene	26.1	25.0	104%	25.2	25.0	101%	3.5%
Dibenz(a,h)anthracene	25.8	25.0	103%	25.2	25.0	101%	2.4%
Benzo(g,h,i)perylene	25.4	25.0	102%	24.6	25.0	98.4%	3.2%
1-Methylnaphthalene	18.5	25.0	74.0%	20.1	25.0	80.4%	8.3%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	69.6%	75.6%
2-Fluorobiphenyl	80.8%	82.8%
d14-p-Terphenyl	94.0%	96.8%
d4-1,2-Dichlorobenzene	59.6%	60.0%
d5-Phenol	69.1%	74.9%
2-Fluorophenol	65.9%	69.6%
2,4,6-Tribromophenol	94.7%	96.5%
d4-2-Chlorophenol	71.7%	76.8%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-110708  
METHOD BLANK

Lab Sample ID: MB-110708  
LIMS ID: 08-30172  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/07/08  
Date Analyzed: 11/19/08 16:22  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-110708  
METHOD BLANK

Lab Sample ID: MB-110708  
LIMS ID: 08-30172  
Matrix: Water  
Date Analyzed: 11/19/08 16:22

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	60.0%	2-Fluorobiphenyl	58.0%
d14-p-Terphenyl	76.8%	d4-1,2-Dichlorobenzene	54.0%
d5-Phenol	60.0%	2-Fluorophenol	56.5%
2,4,6-Tribromophenol	60.8%	d4-2-Chlorophenol	63.5%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP16-GW-081105

SAMPLE

Lab Sample ID: NY44K

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized: *MS*

Reported: 11/11/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

Event: 025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/07/08

Date Analyzed: 11/11/08 12:08

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
<b>83-32-9</b>	<b>Acenaphthene</b>	<b>0.10</b>	<b>15 E</b>
86-73-7	Fluorene	0.10	< 0.10 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>0.10</b>	<b>2.6</b>
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 59.3%  
d14-Dibenzo (a,h) anthracene 70.7%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP16-GW-081105

DILUTION

Lab Sample ID: NY44K

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized:

Reported: 11/11/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

Event: 025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/07/08

Date Analyzed: 11/11/08 14:38

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 3.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.30	< 0.30 U
91-57-6	2-Methylnaphthalene	0.30	< 0.30 U
90-12-0	1-Methylnaphthalene	0.30	< 0.30 U
208-96-8	Acenaphthylene	0.30	< 0.30 U
<b>83-32-9</b>	<b>Acenaphthene</b>	<b>0.30</b>	<b>15</b>
86-73-7	Fluorene	0.30	< 0.30 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>0.30</b>	<b>2.4</b>
120-12-7	Anthracene	0.30	< 0.30 U
206-44-0	Fluoranthene	0.30	< 0.30 U
129-00-0	Pyrene	0.30	< 0.30 U
56-55-3	Benzo (a) anthracene	0.30	< 0.30 U
218-01-9	Chrysene	0.30	< 0.30 U
205-99-2	Benzo (b) fluoranthene	0.30	< 0.30 U
207-08-9	Benzo (k) fluoranthene	0.30	< 0.30 U
50-32-8	Benzo (a) pyrene	0.30	< 0.30 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.30	< 0.30 U
53-70-3	Dibenz (a,h) anthracene	0.30	< 0.30 U
191-24-2	Benzo (g,h,i) perylene	0.30	< 0.30 U
132-64-9	Dibenzofuran	0.30	< 0.30 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 55.0%  
d14-Dibenzo (a,h) anthracene 55.0%

**ORGANICS ANALYSIS DATA SHEET**

**PNAs by SW8270D-SIM GC/MS**

Page 1 of 1

**Sample ID: TDP18-GW-081105**

**SAMPLE**

Lab Sample ID: NY44L

LIMS ID: 08-30173

Matrix: Water

Data Release Authorized: 

Reported: 11/11/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

Event: 025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/07/08

Date Analyzed: 11/11/08 11:18

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
<b>83-32-9</b>	<b>Acenaphthene</b>	<b>0.10</b>	<b>0.64</b>
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U
191-24-2	Benzo(g,h,i)perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 63.3%  
d14-Dibenzo(a,h)anthracene 87.3%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP25-GW-081105

SAMPLE

Lab Sample ID: NY44M

LIMS ID: 08-30174

Matrix: Water

Data Release Authorized: 

Reported: 11/11/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

Event: 025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/07/08

Date Analyzed: 11/11/08 11:43

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	0.13
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 58.3%  
d14-Dibenzo (a,h) anthracene 70.3%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-110708	62.7%	84.0%	0
LCS-110708	58.3%	90.3%	0
LCSD-110708	65.7%	82.3%	0
TDP16-GW-081105	59.3%	70.7%	0
TDP16-GW-081105 DL	55.0%	55.0%	0
TDP18-GW-081105	63.3%	87.3%	0
TDP25-GW-081105	58.3%	70.3%	0

	<b>LCS/MB LIMITS</b>	<b>QC LIMITS</b>
(MNP) = d10-2-Methylnaphthalene	(49-113)	(44-112)
(DBA) = d14-Dibenzo (a, h) anthracene	(49-132)	(10-138)

Prep Method: SW3520C  
Log Number Range: 08-30172 to 08-30174

**ORGANICS ANALYSIS DATA SHEET**

**PNAs by SW8270D-SIM GC/MS**

Page 1 of 1

Sample ID: LCS-110708

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110708

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized: *AS*

Reported: 11/11/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

Event: 025173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/07/08

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 11/11/08 10:29

Final Extract Volume LCS: 0.50 mL

LCSD: 11/11/08 10:54

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/VTS

Dilution Factor LCS: 1.00

LCSD: NT1/VTS

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	1.50	3.00	50.0%	1.84	3.00	61.3%	20.4%
2-Methylnaphthalene	1.61	3.00	53.7%	1.97	3.00	65.7%	20.1%
1-Methylnaphthalene	1.49	3.00	49.7%	1.85	3.00	61.7%	21.6%
Acenaphthylene	1.68	3.00	56.0%	1.99	3.00	66.3%	16.9%
Acenaphthene	1.67	3.00	55.7%	1.99	3.00	66.3%	17.5%
Fluorene	1.96	3.00	65.3%	2.13	3.00	71.0%	8.3%
Phenanthrene	2.15	3.00	71.7%	2.16	3.00	72.0%	0.5%
Anthracene	2.11	3.00	70.3%	2.19	3.00	73.0%	3.7%
Fluoranthene	2.53	3.00	84.3%	2.49	3.00	83.0%	1.6%
Pyrene	2.59	3.00	86.3%	2.63	3.00	87.7%	1.5%
Benzo(a)anthracene	2.37	3.00	79.0%	2.35	3.00	78.3%	0.8%
Chrysene	2.44	3.00	81.3%	2.41	3.00	80.3%	1.2%
Benzo(b)fluoranthene	2.59	3.00	86.3%	2.50	3.00	83.3%	3.5%
Benzo(k)fluoranthene	2.62	3.00	87.3%	2.50	3.00	83.3%	4.7%
Benzo(a)pyrene	2.46	3.00	82.0%	2.28	3.00	76.0%	7.6%
Indeno(1,2,3-cd)pyrene	2.46	3.00	82.0%	2.40	3.00	80.0%	2.5%
Dibenz(a,h)anthracene	2.48	3.00	82.7%	2.39	3.00	79.7%	3.7%
Benzo(g,h,i)perylene	2.48	3.00	82.7%	2.40	3.00	80.0%	3.3%
Dibenzofuran	1.79	3.00	59.7%	2.08	3.00	69.3%	15.0%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	58.3%	65.7%
d14-Dibenzo(a,h)anthracene	90.3%	82.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-110708

METHOD BLANK

Lab Sample ID: MB-110708

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized: *AS*

Reported: 11/11/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

Event: 025173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/07/08

Date Analyzed: 11/11/08 10:05

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene	62.7%
d14-Dibenzo (a,h) anthracene	84.0%

Sample ID: TDP16-3-081105  
SAMPLE

Lab Sample ID: NY44A  
LIMS ID: 08-30162  
Matrix: Soil  
Data Release Authorized: VTS  
Reported: 11/15/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/10/08  
Date Analyzed: 11/12/08 11:57  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 27.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	90.8%
Tetrachlorometaxylene	94.5%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP18-4-081105

**SAMPLE**

Lab Sample ID: NY44C

LIMS ID: 08-30164

Matrix: Soil

Data Release Authorized: **VTB**

Reported: 11/15/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 12:14

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 26.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	90.8%

Sample ID: TDP20-3-081105  
SAMPLE

Lab Sample ID: NY44E  
LIMS ID: 08-30166  
Matrix: Soil  
Data Release Authorized: *UTS*  
Reported: 11/15/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/10/08  
Date Analyzed: 11/12/08 12:31  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.3 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 24.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	96.2%
Tetrachlorometaxylene	94.5%

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

**Sample ID: TDP21-3-081105**  
**SAMPLE**

Lab Sample ID: NY44F  
 LIMS ID: 08-30167  
 Matrix: Soil  
 Data Release Authorized: **VTS**  
 Reported: 11/15/08

QC Report No: NY44-The Boeing Company  
 Project: PHASE II  
 025173  
 Date Sampled: 11/05/08  
 Date Received: 11/05/08

Date Extracted: 11/10/08  
 Date Analyzed: 11/12/08 12:48  
 Instrument/Analyst: ECD5/JGR  
 GPC Cleanup: No  
 Sulfur Cleanup: Yes  
 Acid Cleanup: Yes  
 Florisil Cleanup: No

Sample Amount: 13.0 g-dry-wt  
 Final Extract Volume: 4.0 mL  
 Dilution Factor: 1.00  
 Silica Gel: No  
 Percent Moisture: 9.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	93.8%
Tetrachlorometaxylene	88.0%

Sample ID: TDP22-3-081105  
SAMPLE

Lab Sample ID: NY44G  
LIMS ID: 08-30168  
Matrix: Soil  
Data Release Authorized: VTS  
Reported: 11/15/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/10/08  
Date Analyzed: 11/12/08 13:05  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 10.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	93.5%
Tetrachlorometaxylene	99.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP23-3-081105

**SAMPLE**

Lab Sample ID: NY44H

LIMS ID: 08-30169

Matrix: Soil

Data Release Authorized: **VTS**

Reported: 11/15/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 13:22

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 9.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	95.5%
Tetrachlorometaxylene	95.5%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP25-9-081105

**SAMPLE**

Lab Sample ID: NY44J

LIMS ID: 08-30171

Matrix: Soil

Data Release Authorized: **VTS**

Reported: 11/15/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 13:39

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 4.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	95.2%
Tetrachlorometaxylene	89.2%

**SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-111008	94.2%	30-160	95.5%	30-160	0
LCS-111008	95.5%	30-160	94.5%	30-160	0
LCSD-111008	98.5%	30-160	94.8%	30-160	0
TDP16-3-081105	90.8%	30-160	94.5%	30-160	0
TDP18-4-081105	88.5%	30-160	90.8%	30-160	0
TDP20-3-081105	96.2%	30-160	94.5%	30-160	0
TDP21-3-081105	93.8%	30-160	88.0%	30-160	0
TDP22-3-081105	93.5%	30-160	99.0%	30-160	0
TDP23-3-081105	95.5%	30-160	95.5%	30-160	0
TDP25-9-081105	95.2%	30-160	89.2%	30-160	0

Microwave (MARS) Control Limits  
Prep Method: SW3546  
Log Number Range: 08-30162 to 08-30171

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-111008

LCS/LCSD

Lab Sample ID: LCS-111008

LIMS ID: 08-30162

Matrix: Soil

Data Release Authorized: *VTS*

Reported: 11/15/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/10/08

Sample Amount LCS: 12.0 g-dry-wt

LCSD: 12.0 g-dry-wt

Date Analyzed LCS: 11/12/08 08:32

Final Extract Volume LCS: 4.0 mL

LCSD: 11/12/08 08:49

LCSD: 4.0 mL

Instrument/Analyst LCS: ECD5/JGR

Dilution Factor LCS: 1.00

LCSD: ECD5/JGR

LCSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: Yes

Percent Moisture: NA

Acid Cleanup: Yes

Florisil Cleanup: No

Analyte	LCS	Spike		LCS Recovery	LCSD	Spike		LCSD Recovery	RPD
		Added-LCS				Added-LCSD			
Aroclor 1016	139	167		83.4%	144	167		86.4%	3.5%
Aroclor 1260	155	167		93.0%	161	167		96.6%	3.8%

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	95.5%	98.5%
Tetrachlorometaxylene	94.5%	94.8%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: MB-111008

METHOD BLANK

Lab Sample ID: MB-111008

LIMS ID: 08-30162

Matrix: Soil

Data Release Authorized: **VTS**

Reported: 11/15/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/10/08

Date Analyzed: 11/12/08 08:15

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	94.2%
Tetrachlorometaxylene	95.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TDP16-GW-081105  
SAMPLE

Lab Sample ID: NY44K

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/18/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/11/08

Date Analyzed: 11/12/08 18:12

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	70.5%
Tetrachlorometaxylene	71.8%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP18-GW-081105

SAMPLE

Lab Sample ID: NY44L

LIMS ID: 08-30173

Matrix: Water

Data Release Authorized:

Reported: 11/18/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/11/08

Date Analyzed: 11/12/08 18:29

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	29.8%
Tetrachlorometaxylene	28.2%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP18-GW-081105  
REEXTRACT

Lab Sample ID: NY44L

LIMS ID: 08-30173

Matrix: Water

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Date Extracted: 11/15/08

Date Analyzed: 11/17/08 14:49

Instrument/Analyst: ECD5/PKC

GPC Cleanup: No

Sulfur Cleanup: Yes

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.8%
Tetrachlorometaxylene	76.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TDP25-GW-081105  
SAMPLE

Lab Sample ID: NY44M  
LIMS ID: 08-30174  
Matrix: Water  
Data Release Authorized:   
Reported: 11/18/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

Date Extracted: 11/11/08  
Date Analyzed: 11/12/08 18:46  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	84.8%
Tetrachlorometaxylene	72.5%

**SW8082/PCB WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-111108	70.2%	47-101	75.5%	61-104	0
LCS-111108	76.8%	47-101	85.8%	61-104	0
LCSD-111108	76.2%	47-101	87.2%	61-104	0
TDP16-GW-081105	70.5%	42-120	71.8%	55-102	0
MB-111508	76.2%	47-101	68.8%	61-104	0
LCS-111508	87.8%	47-101	77.8%	61-104	0
LCSD-111508	87.2%	47-101	77.0%	61-104	0
TDP18-GW-081105	29.8%*	42-120	28.2%*	55-102	2
TDP18-GW-081105 RE	88.8%	42-120	76.5%	55-102	0
TDP25-GW-081105	84.8%	42-120	72.5%	55-102	0

Prep Method: SW3510C  
Log Number Range: 08-30172 to 08-30174

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-111108

LCS/LCSD

Lab Sample ID: LCS-111108

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/11/08

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 11/12/08 17:38

Final Extract Volume LCS: 5.0 mL

LCSD: 11/12/08 17:55

LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/JGR

Dilution Factor LCS: 1.00

LCSD: ECD5/JGR

LCSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: No

Acid Cleanup: No

Analyte	Spike		LCS		Spike		LCSD	
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	RPD	
Aroclor 1016	3.95	5.00	79.0%	4.16	5.00	83.2%	5.2%	
Aroclor 1260	4.57	5.00	91.4%	4.58	5.00	91.6%	0.2%	

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	76.8%	76.2%
Tetrachlorometaxylene	85.8%	87.2%

Results reported in  $\mu\text{g/L}$

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-111508

LCS/LCSD

Lab Sample ID: LCS-111508

LIMS ID: 08-30173

Matrix: Water

Data Release Authorized: *AB*

Reported: 11/18/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/15/08

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 11/17/08 12:49

Final Extract Volume LCS: 5.0 mL

LCSD: 11/17/08 13:07

LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/PKC

Dilution Factor LCS: 1.00

LCSD: ECD5/PKC

LCSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Analyte	LCS		LCS		LCSD		RPD
	LCS	Spike Added-LCS	Recovery	LCS	LCSD	Spike Added-LCSD	
Aroclor 1016	3.94	5.00	78.8%	4.14	5.00	82.8%	5.0%
Aroclor 1260	4.54	5.00	90.8%	4.46	5.00	89.2%	1.8%

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	87.8%	87.2%
Tetrachlorometaxylene	77.8%	77.0%

Results reported in  $\mu\text{g/L}$

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: MB-111108

METHOD BLANK

Lab Sample ID: MB-111108

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/18/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/11/08

Date Analyzed: 11/12/08 17:21

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	70.2%
Tetrachlorometaxylene	75.5%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: MB-111508

METHOD BLANK

Lab Sample ID: MB-111508

LIMS ID: 08-30173

Matrix: Water

Data Release Authorized: 

Reported: 11/18/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/15/08

Date Analyzed: 11/17/08 12:32

Instrument/Analyst: ECD5/PKC

GPC Cleanup: No

Sulfur Cleanup: Yes

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	76.2%
Tetrachlorometaxylene	68.8%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 2

Matrix: Soil

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Data Release Authorized: 

Reported: 11/12/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
NY44A 08-30162	TDP16-3-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 93.1%
MB-110708 08-30163	Method Blank	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 91.1%
NY44B 08-30163	TDP17-4-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 91.9%
NY44BDP 08-30163	TDP17-4-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 93.6%
NY44C 08-30164	TDP18-4-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 95.7%
NY44D 08-30165	TDP19-4-081105 HC ID: <b>MOTOR OIL</b>	11/07/08	11/08/08	1.0	Gas Diesel <b>Oil</b> o-Terphenyl	< 20 U < 50 U > 100 94.4%
NY44E 08-30166	TDP20-3-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 94.4%
NY44F 08-30167	TDP21-3-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 90.7%
NY44G 08-30168	TDP22-3-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 91.4%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID  
Page 2 of 2  
Matrix: Soil

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

Data Release Authorized:  
Reported: 11/12/08 

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
NY44H 08-30169	TDP23-3-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 93.6%
NY44I 08-30170	TDP24-11-081105 HC ID: ---	11/07/08	11/08/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 89.2%
NY44J 08-30171	TDP25-9-081105 HC ID: <b>MOTOR OIL</b>	11/07/08	11/08/08	1.0	Gas Diesel <b>Oil</b> o-Terphenyl	< 20 U < 50 U > 100 91.9%

Reported in mg/kg (ppm)

Gas value based on total peaks in the range from Toluene to C12.  
Diesel value based on the total peaks in the range from C12 to C24.  
Oil value based on the total peaks in the range from C24 to C38.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a092.d ARI ID: NY44MBS1  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.mClient ID: NY44MBS1  
 Instrument: fid3a.i Injection: 08-NOV-2008 11:19  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.784	-0.006	235937	208051	GAS (Tol-C12)	693615	18
C8	1.887	-0.002	14760	12701	DIESEL (C12-C24)	127851	8
C10	2.435	0.000	4470	9439	M.OIL (C24-C38)	405547	32
C12	2.908	-0.001	2129	2553	AK-102 (C10-C25)	217772	10
C14	3.327	0.005	1375	656	AK-103 (C25-C36)	305043	33
C16	3.704	0.003	967	345	OR.DIES (C10-C28)	276241	13
C18	4.121	-0.004	730	518	OR.MOIL (C28-C40)	457151	49
C20	4.541	-0.003	971	511	JET-A (C10-C18)	163359	10
C22	4.902	0.003	919	526	MIN.OIL (C24-C38)	405547	32
C24	5.195	-0.007	1326	1864	MSPRIT (Tol-C12)	693615	44
C25	5.335	-0.002	1526	543			
C26	5.467	0.003	1929	803			
C28	5.698	0.000	3286	4161			
C32	6.133	0.003	5850	6487			
C34	6.370	0.003	5414	1945			
Filter Peak	8.450	0.004	4527	1444	JP-4 (Tol-C14)	730892	64
C36	6.644	-0.002	5132	3170	CREOSOT (C8-C22)	443781	71
C38	6.994	0.000	5021	2105			
C40	7.439	-0.002	4781	3054	BUNKERC (C10-C38)	619992	69
AZDIESEL (C10-C22)			170234	11			
AZMOIL (C22-C32)			170815	27			

Range Times: NW Diesel(2.959 - 5.251) NW Gas(1.740 - 2.959) NW M.Oil(5.251 - 7.044)  
 AK102(2.385 - 5.287) AK103(5.287 - 6.696) Jet A(2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	850573	41.0	91.1
Triacontane	797119	40.9	90.8

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a092.d

Date : 08-NOV-2008 11:19

Client ID: NY44HBS1

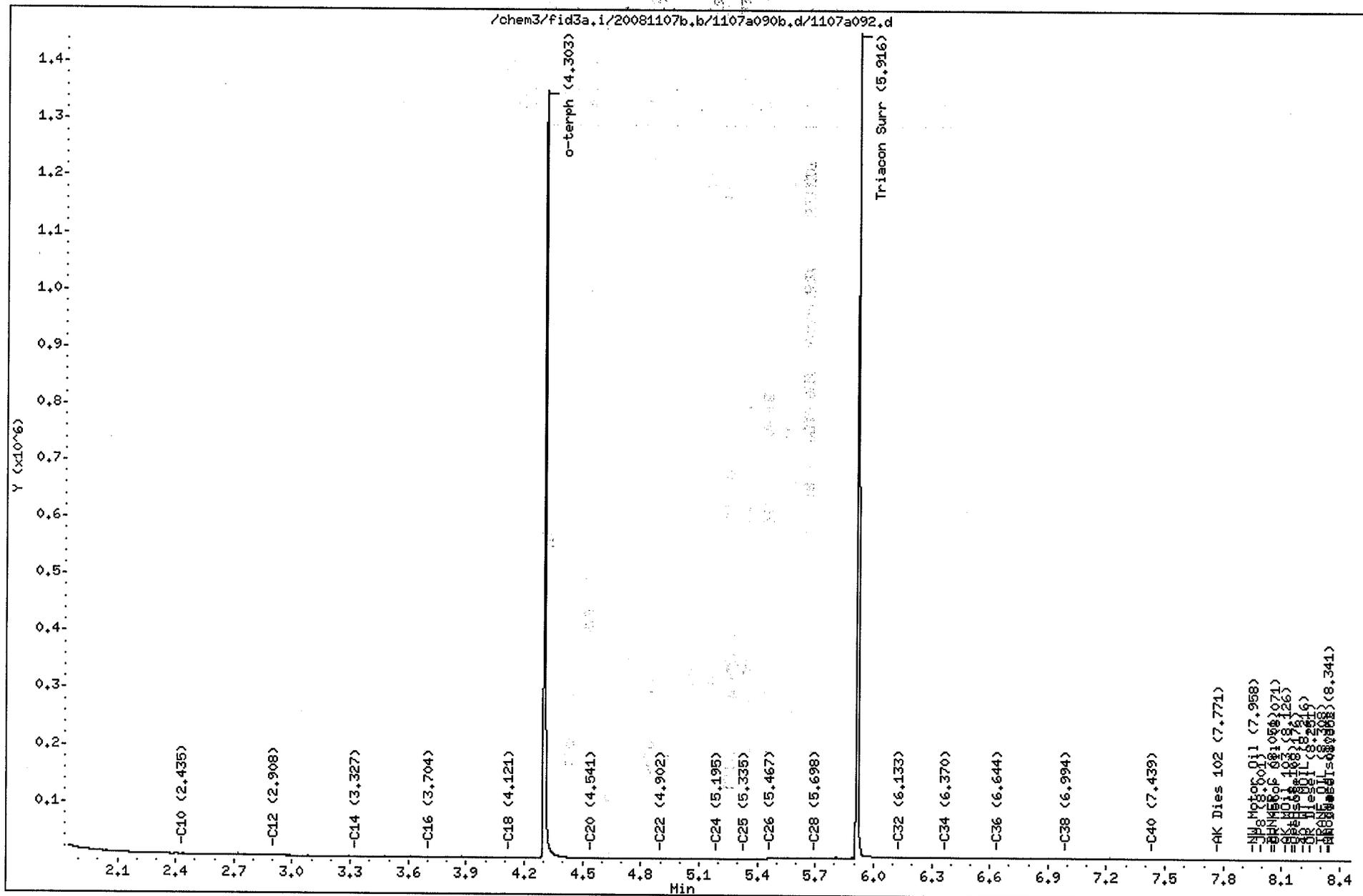
Sample Info: NY44HBS1

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a093.d ARI ID: NY44A  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP16-3-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 11:33  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.778	-0.012	271383	347367	GAS (Tol-C12)	1282355	32
C8	1.895	0.006	14675	17385	DIESEL (C12-C24)	213423	13
C10	2.436	0.001	4626	8858	M.OIL (C24-C38)	780584	62
C12	2.909	0.000	2371	2371	AK-102 (C10-C25)	311376	14
C14	3.320	-0.002	1741	620	AK-103 (C25-C36)	678771	74
C16	3.706	0.005	1380	2133	OR.DIES (C10-C28)	433717	20
C18	4.125	0.000	1238	1800	OR.MOIL (C28-C40)	792324	85
C20	4.546	0.002	1654	2174	JET-A (C10-C18)	195675	11
C22	4.903	0.003	1936	2099	MIN.OIL (C24-C38)	780584	61
C24	5.201	0.000	3927	3338	MSPiRIT (Tol-C12)	1282355	81
C25	5.340	0.003	8123	12154			
C26	5.463	-0.001	3718	3547			
C28	5.696	-0.002	6195	6043			
C32	6.130	-0.001	11167	15271			
C34	6.366	-0.001	23690	24360			
Filter Peak	8.445	-0.001	4645	2686	JP-4 (Tol-C14)	1324232	117
C36	6.642	-0.004	7683	11220	CREOSOT (C8-C22)	478732	77
C38	6.992	-0.002	5674	3617			
C40	7.441	0.000	5097	4372	BUNKERC (C10-C38)	1087117	122
AZDIESEL (C10-C22)			234317	15			
AZMOIL (C22-C32)			404709	63			

*Solvent haul*  
*AL PL*  
*11/12/08*  
*220*

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	869798	41.9	93.1
Triacontane	811933	41.6	92.5

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b,b/1107a090b,d/1107a093,d

Date : 08-NOV-2008 11:33

Client ID: TDP16-3-081105

Sample Info: NY44A

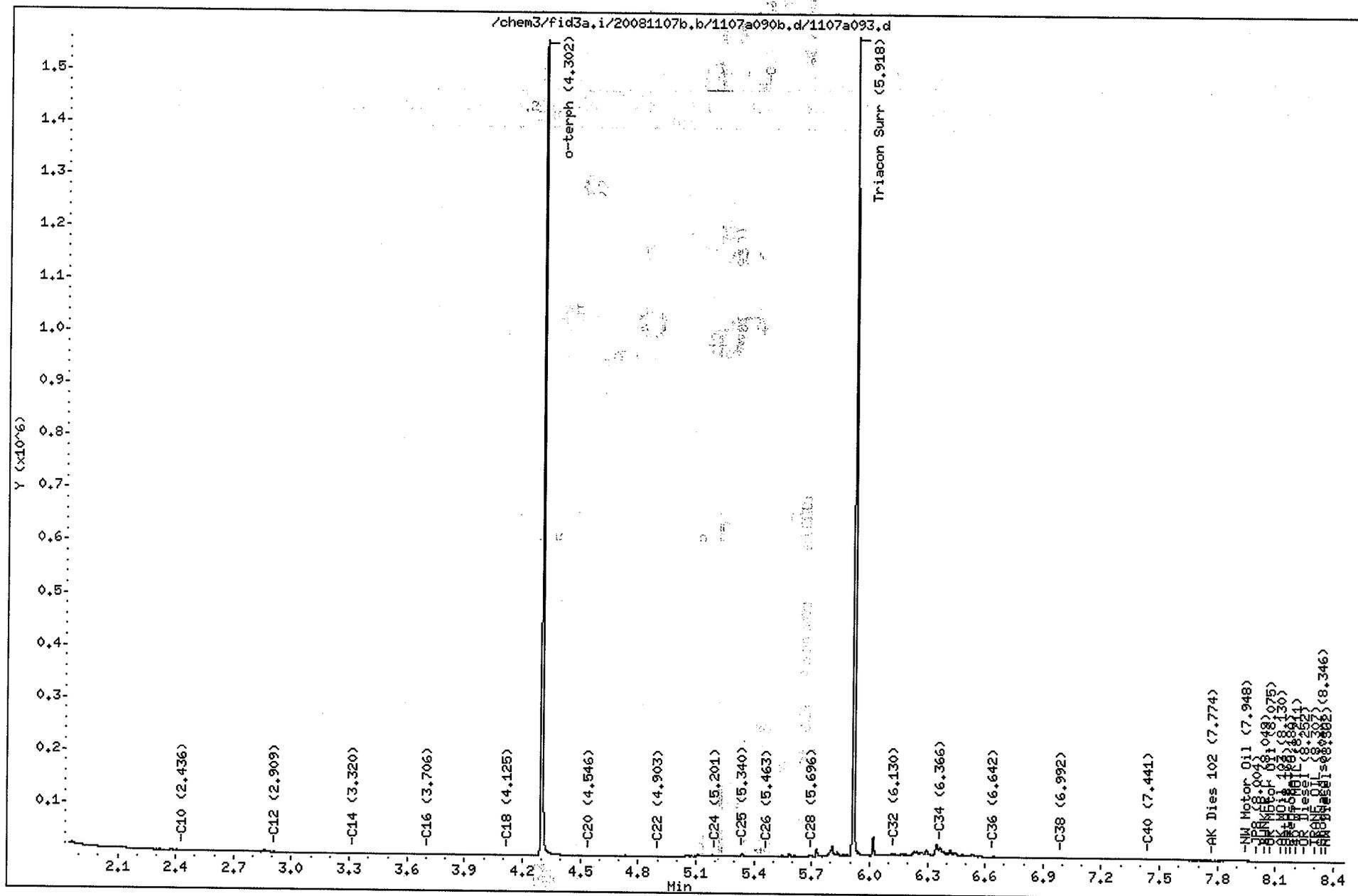
Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0,25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a094.d ARI ID: NY44B  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP17-4-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 11:48  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.798	0.007	232035	258564	GAS (Tol-C12)	937353	24
C8	1.895	0.005	14918	11606	DIESEL (C12-C24)	149625	9
C10	2.436	0.001	4614	10781	M.OIL (C24-C38)	490129	39
C12	2.909	0.000	2263	2767	AK-102 (C10-C25)	252908	12
C14	3.322	-0.001	1483	906	AK-103 (C25-C36)	375435	41
C16	3.701	-0.001	1074	213	OR.DIES (C10-C28)	323250	15
C18	4.124	-0.002	810	475	OR.MOIL (C28-C40)	549455	59
C20	4.548	0.004	1066	400	JET-A (C10-C18)	180664	11
C22	4.900	0.000	1122	287	MIN.OIL (C24-C38)	490129	38
C24	5.205	0.003	1860	1968	MSPIRIT (Tol-C12)	937353	59
C25	5.339	0.002	2338	3249			
C26	5.468	0.004	2350	2743			
C28	5.700	0.001	3936	5501			
C32	6.136	0.005	7412	11461			
C34	6.363	-0.005	6477	8318			
Filter Peak	8.453	0.007	4475	2676	JP-4 (Tol-C14)	973230	86
C36	6.644	-0.002	5832	4401	CREOSOT (C8-C22)	447785	72
C38	6.990	-0.004	5344	3516			
C40	7.446	0.005	4919	2352	BUNKERC (C10-C38)	738047	83
AZDIESEL (C10-C22)			196806	12			
AZMOIL (C22-C32)			217749	34			

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	857931	41.3	91.9
Triacotane	809153	41.5	92.2

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a094.d

Date : 08-NOV-2008 11:48

Client ID: TDP17-4-081105

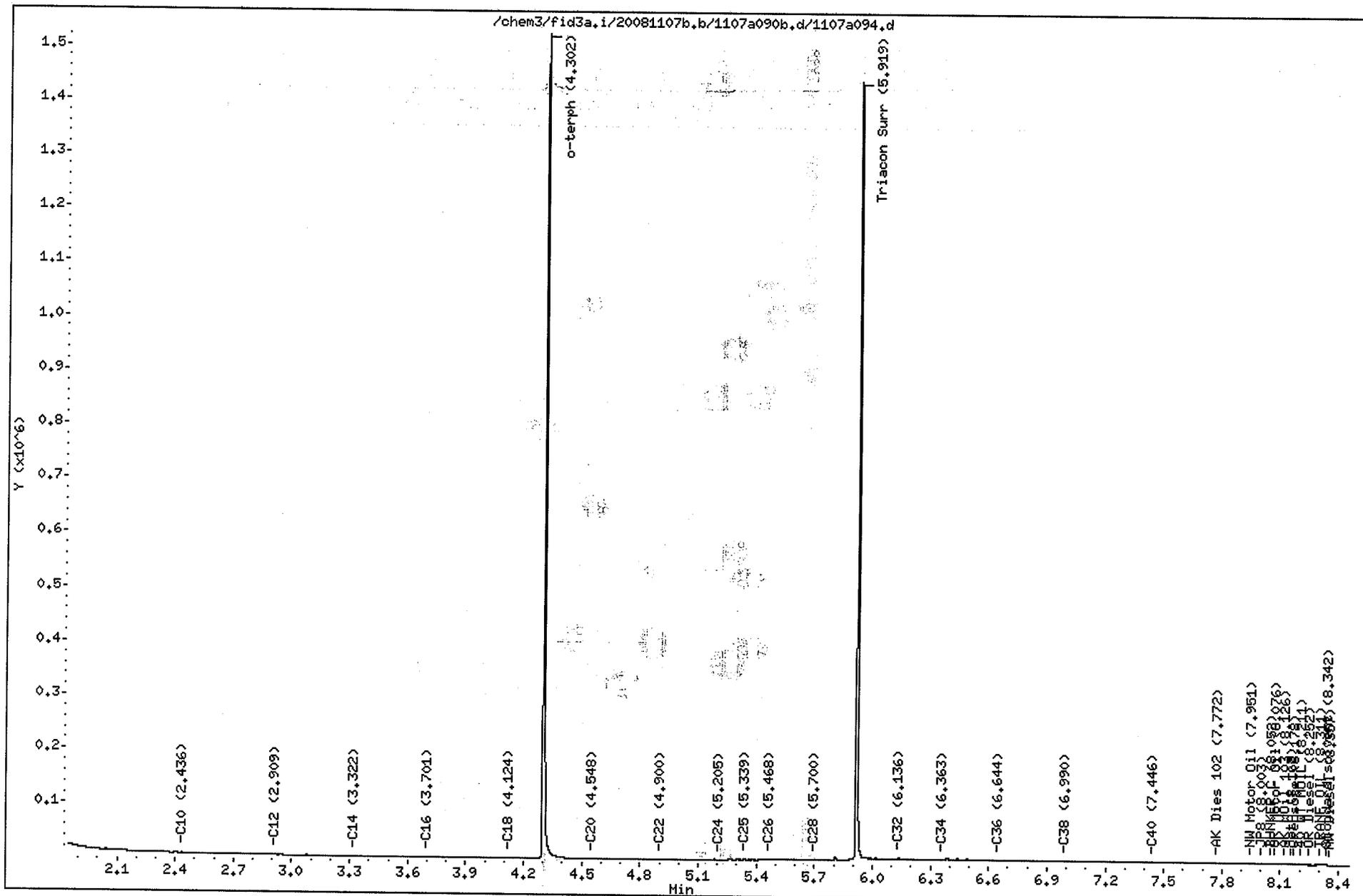
Sample Info: NY44B

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a095.d ARI ID: NY44BDUP  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.mClient ID: TDP17-4-081105 DUP  
 Instrument: fid3a.i Injection: 08-NOV-2008 12:03  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.790	0.000	237426	320103	GAS (Tol-C12)	666555	17
C8	1.891	0.002	15015	10912	DIESEL (C12-C24)	146197	9
C10	2.435	0.000	4650	9174	M.OIL (C24-C38)	451405	36
C12	2.909	0.000	2242	3101	AK-102 (C10-C25)	248043	12
C14	3.321	-0.001	1463	555	AK-103 (C25-C36)	349840	38
C16	3.702	0.000	1068	169	OR.DIES (C10-C28)	312767	15
C18	4.130	0.004	801	142	OR.MOIL (C28-C40)	502755	54
C20	4.542	-0.002	1064	401	JET-A (C10-C18)	179596	10
C22	4.897	-0.003	1107	394	MIN.OIL (C24-C38)	451405	35
C24	5.205	0.004	1929	1952	MSPiRiT (Tol-C12)	666555	42
C25	5.340	0.003	2362	3151			
C26	5.468	0.004	2226	3695			
C28	5.702	0.003	3740	4709			
C32	6.144	0.013	7060	17121			
C34	6.366	-0.001	6251	9529			
Filter Peak	8.444	-0.001	4447	3631	JP-4 (Tol-C14)	705342	62
C36	6.644	-0.002	5601	5877	CREOSOT (C8-C22)	468478	75
C38	6.990	-0.004	5082	3551			
C40	7.442	0.001	4709	939	BUNKERC (C10-C38)	695515	78
AZDIESEL (C10-C22)			193801	12			
AZMOIL (C22-C32)			202082	31			

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	873875	42.1	93.6
Triacontane	820534	42.1	93.5

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a095.d

Date : 08-NOV-2008 12:03

Client ID: TDP17-4-081105 DUP

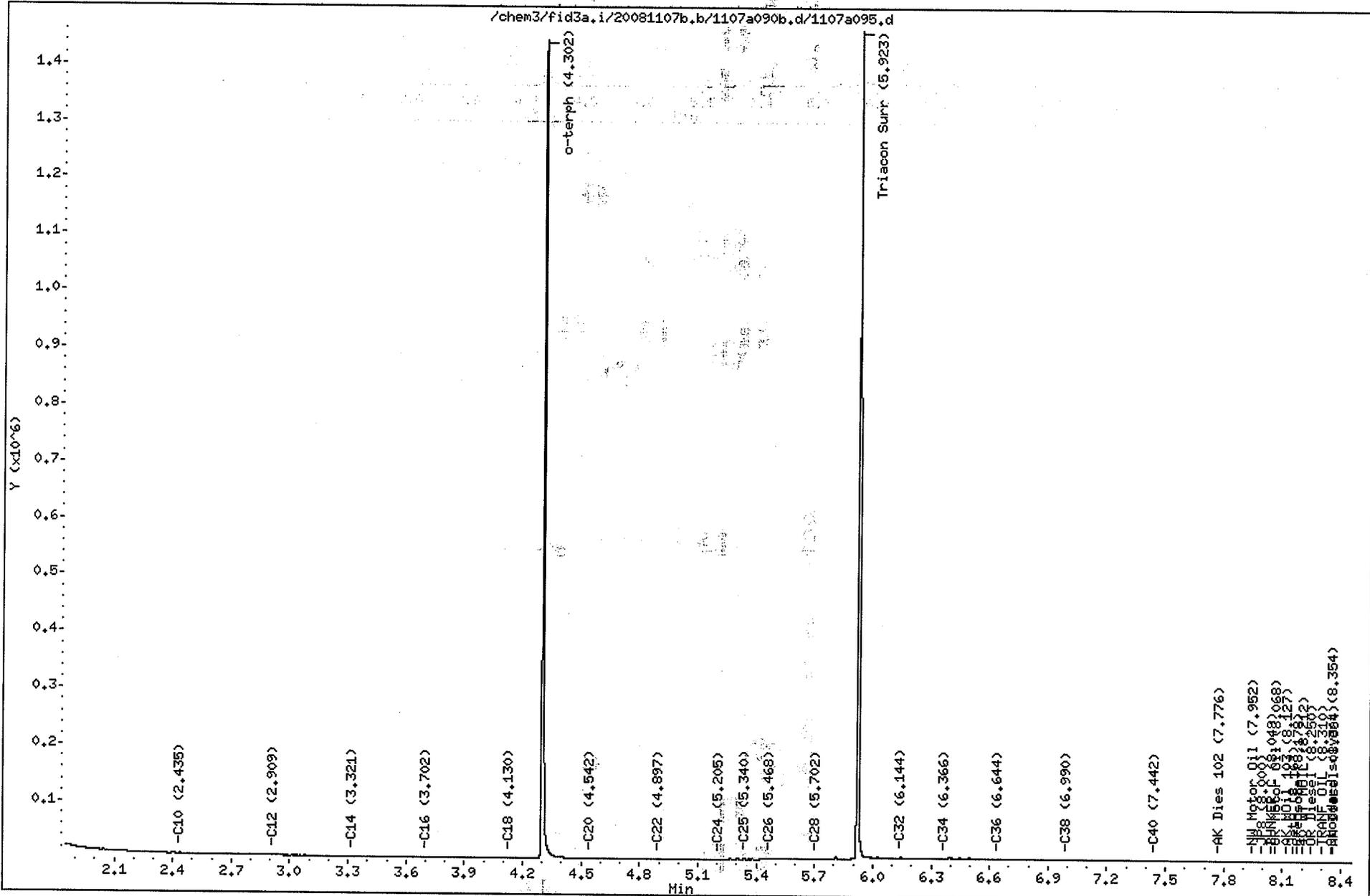
Instrument: fid3a.i

Sample Info: NY44BDUP

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a096.d ARI ID: NY44C  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP18-4-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 12:18  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.792	0.001	238944	336932	GAS (Tol-C12)	655244	17
C8	1.896	0.007	15057	17876	DIESEL (C12-C24)	194638	12
C10	2.435	0.000	4634	10927	M.OIL (C24-C38)	713938	57
C12	2.910	0.001	2236	2916	AK-102 (C10-C25)	298235	14
C14	3.323	0.001	1523	1222	AK-103 (C25-C36)	585340	64
C16	3.704	0.002	1188	709	OR.DIES (C10-C28)	419865	20
C18	4.124	-0.002	1092	453	OR.MOIL (C28-C40)	729184	78
C20	4.544	0.000	1604	223	JET-A (C10-C18)	183999	11
C22	4.898	-0.002	1998	822	MIN.OIL (C24-C38)	713938	56
C24	5.201	-0.001	3323	3716	MSPiRIT (Tol-C12)	655244	41
C25	5.337	-0.001	4866	7995			
C26	5.462	-0.002	4144	5192			
C28	5.694	-0.005	6482	6037			
C32	6.131	0.001	10181	2026			
C34	6.356	-0.011	11982	11247			
Filter Peak	8.449	0.004	4450	799	JP-4 (Tol-C14)	690555	61
C36	6.637	-0.009	10147	20396	CREOSOT (C8-C22)	466700	75
C38	6.996	0.001	6194	2816			
C40	7.441	0.000	5088	2637	BUNKERC (C10-C38)	1005445	113

AZDIESEL (C10-C22)	219056	14
AZMOIL (C22-C32)	359524	56

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	893398	43.1	95.7
Triacotane	849769	43.6	96.8

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b,b/1107a090b,d/1107a096.d

Date : 08-NOV-2008 12:18

Client ID: TDP18-4-081105

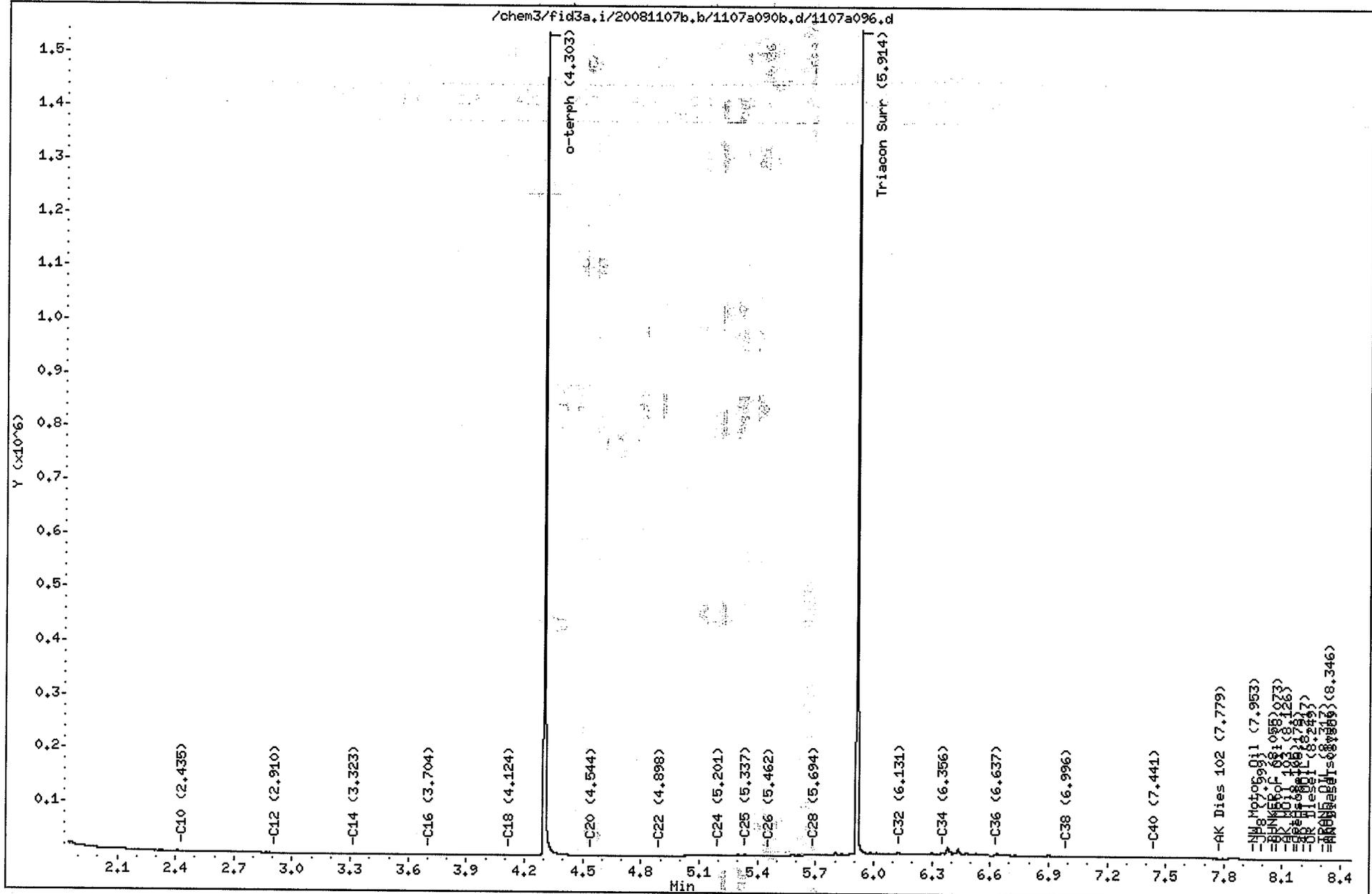
Sample Info: NY44C

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a097.d ARI ID: NY44D  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.mClient ID: TDP19-4-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 12:32  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.788	-0.003	267874	396589	GAS (Tol-C12)	922509	23
C8	1.898	0.008	15690	15982	DIESEL (C12-C24)	953020	56
C10	2.435	0.000	4907	7304	M.OIL (C24-C38)	5173319	410
C12	2.910	0.000	2687	2446	AK-102 (C10-C25)	1097672	51
C14	3.321	-0.001	2318	1183	AK-103 (C25-C36)	4357986	476
C16	3.697	-0.005	4255	4340	OR.DIES (C10-C28)	1979551	93
C18	4.122	-0.004	5275	1778	OR.MOIL (C28-C40)	4878693	521
C20	4.543	-0.002	8549	1679	JET-A (C10-C18)	350719	20
C22	4.898	-0.001	13619	10756	MIN.OIL (C24-C38)	5173319	403
C24	5.200	-0.001	19890	15719	MSPIRIT (Tol-C12)	922509	58
C25	5.336	-0.001	23990	7075			
C26	5.464	-0.001	28253	13919			
C28	5.696	-0.003	45543	23653			
C32	6.126	-0.004	72223	51645			
C34	6.373	0.005	59489	11711			
Filter Peak	8.443	-0.003	8498	2355	JP-4 (Tol-C14)	971709	86
C36	6.649	0.003	48752	24763	CREOSOT (C8-C22)	990436	159
C38	6.993	-0.001	42438	37079			
C40	7.443	0.002	21370	10796	BUNKERC (C10-C38)	6234231	698
AZDIESEL (C10-C22)			722144	45			
AZMOIL (C22-C32)			3038287	472			

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	881725	42.5	94.4
Triacantane	789726	40.5	90.0

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b,b/1107a090b,d/1107a097,d

Date : 08-NOV-2008 12:32

Client ID: TDP19-4-081105

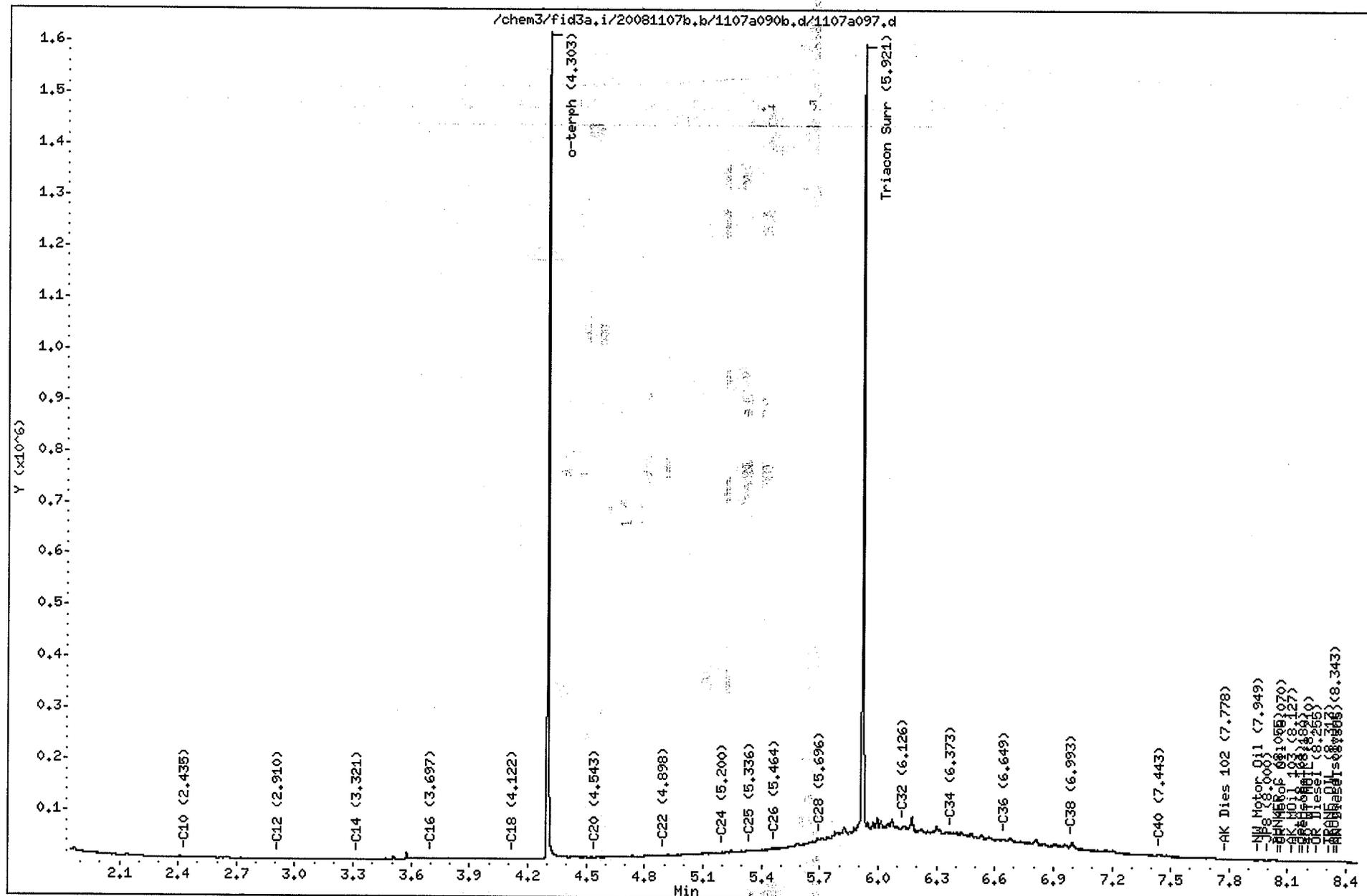
Sample Info: NY44D

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a100.d ARI ID: NY44E  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP20-3-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 13:17  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.781	-0.010	297791	482428	GAS (Tol-C12)	1049355	27
C8	1.894	0.005	16370	21578	DIESEL (C12-C24)	149127	9
C10	2.435	0.000	5027	6725	M.OIL (C24-C38)	445725	35
C12	2.909	0.000	2399	2658	AK-102 (C10-C25)	255687	12
C14	3.326	0.004	1574	404	AK-103 (C25-C36)	346944	38
C16	3.704	0.003	1110	641	OR.DIES (C10-C28)	310451	15
C18	4.123	-0.003	844	463	OR.MOIL (C28-C40)	509370	54
C20	4.550	0.006	1052	390	JET-A (C10-C18)	190576	11
C22	4.901	0.002	1043	551	MIN.OIL (C24-C38)	445725	35
C24	5.200	-0.002	1294	382	MSPRIT (Tol-C12)	1049355	66
C25	5.341	0.004	1541	1287			
C26	5.465	0.001	1835	1827			
C28	5.698	-0.001	3171	3538			
C32	6.136	0.006	14123	20188			
C34	6.369	0.002	5391	2252			
Filter Peak	8.445	0.000	4289	3582	JP-4 (Tol-C14)	1091111	96
C36	6.642	-0.004	4897	2639	CREOSOT (C8-C22)	479293	77
C38	6.997	0.003	4783	2377			
C40	7.437	-0.004	4656	2142	BUNKERC (C10-C38)	698249	78
AZDIESEL (C10-C22)			208830	13			
AZMOIL (C22-C32)			192383	30			

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	881215	42.5	94.4
Triacontane	831978	42.7	94.8

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a100.d

Date : 08-NOV-2008 13:17

Client ID: TDP20-3-081105

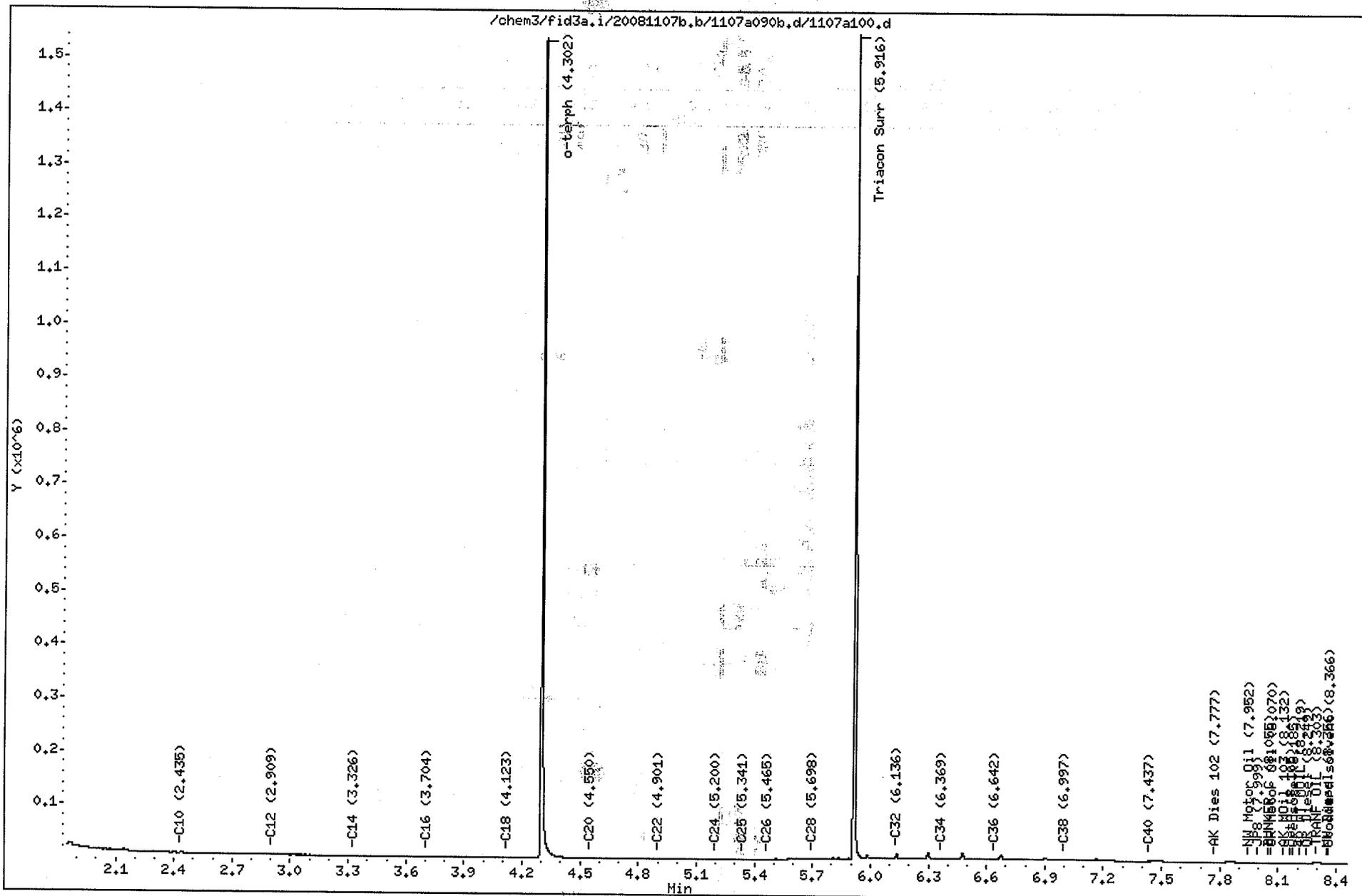
Sample Info: NY44E

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a102.d ARI ID: NY44F  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP21-3-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 13:46  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.793	0.002	248085	126484	GAS (Tol-C12)	685922	17
C8	1.893	0.003	17020	34242	DIESEL (C12-C24)	156863	9
C10	2.435	-0.001	5374	6535	M.OIL (C24-C38)	405758	32
C12	2.909	0.000	2623	2830	AK-102 (C10-C25)	271118	13
C14	3.319	-0.003	1698	905	AK-103 (C25-C36)	314344	34
C16	3.698	-0.004	1182	352	OR.DIES (C10-C28)	327970	15
C18	4.128	0.002	858	307	OR.MOIL (C28-C40)	453753	48
C20	4.549	0.005	1061	499	JET-A (C10-C18)	205629	12
C22	4.899	-0.001	1058	602	MIN.OIL (C24-C38)	405758	32
C24	5.208	0.006	1578	1692	MSPIRIT (Tol-C12)	685922	43
C25	5.340	0.003	1849	2460			
C26	5.467	0.002	2034	3126			
C28	5.698	-0.001	3414	4185			
C32	6.139	0.009	6569	13016			
C34	6.364	-0.004	5620	6637			
Filter Peak	8.450	0.004	4121	1480	JP-4 (Tol-C14)	728159	64
C36	6.649	0.003	4816	2590	CREOSOT (C8-C22)	536727	86
C38	6.991	-0.003	4631	2951			
C40	7.444	0.003	4347	1041	BUNKERC (C10-C38)	673541	75
AZDIESEL (C10-C22)			215465	13			
AZMOIL (C22-C32)			182875	28			

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M:Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	846824	40.8	90.7
Triacontane	794905	40.8	90.6

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a102.d

Date : 08-NOV-2008 13:46

Client ID: TDP21-3-081105

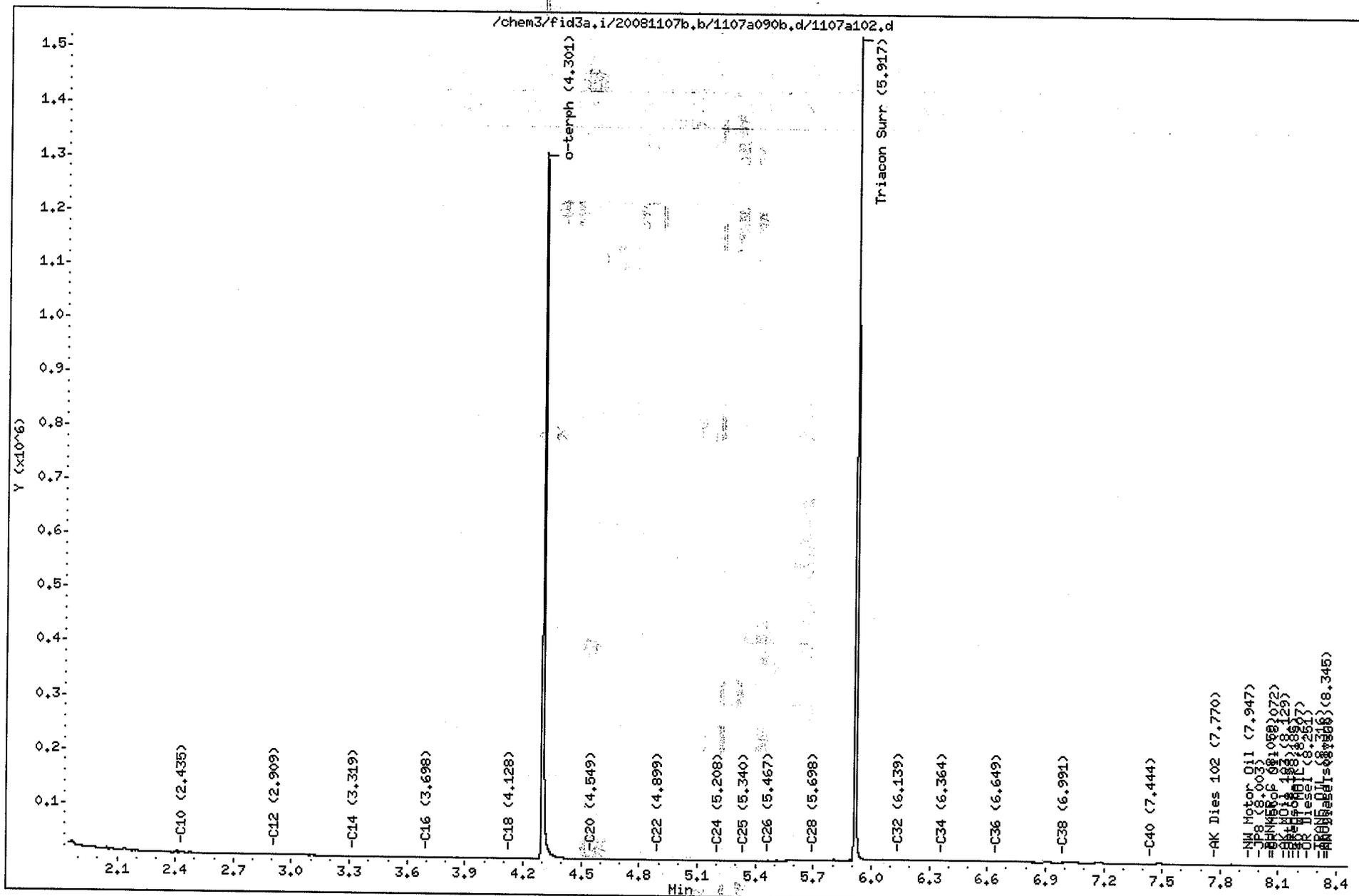
Sample Info: NY44F

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a103.d ARI ID: NY44G  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP22-3-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 14:01  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.802	0.012	217336	202019	GAS (Tol-C12)	1392317	35
C8	1.895	0.006	16018	1918	DIESEL (C12-C24)	315418	19
C10	2.436	0.001	5138	10572	M.OIL (C24-C38)	1108011	88
C12	2.910	0.001	2478	1606	AK-102 (C10-C25)	441860	21
C14	3.319	-0.003	1851	586	AK-103 (C25-C36)	937286	102
C16	3.704	0.003	1579	471	OR.DIES (C10-C28)	693045	33
C18	4.124	-0.001	1487	441	OR.MOIL (C28-C40)	1002918	107
C20	4.549	0.005	2391	2080	JET-A (C10-C18)	227883	13
C22	4.901	0.002	3943	3404	MIN.OIL (C24-C38)	1108011	86
C24	5.200	-0.001	6387	3356	MSPRIT (Tol-C12)	1392317	88
C25	5.332	-0.005	7850	4583			
C26	5.463	-0.001	8789	3122			
C28	5.702	0.003	11862	5131			
C32	6.125	-0.005	15553	21803			
C34	6.357	-0.010	12193	11227			
Filter Peak	8.449	0.004	4391	1754	JP-4 (Tol-C14)	1438799	127
C36	6.645	-0.001	9188	3631	CREOSOT (C8-C22)	606781	97
C38	6.992	-0.002	7199	2270			
C40	7.441	0.000	5658	3010	BUNKERC (C10-C38)	1533069	172
=====							
AZDIESEL (C10-C22)			302656	19			
AZMOIL (C22-C32)			733534	114			

Range Times: NW Diesel(2.959 - 5.251) NW Gas(1.740 - 2.959) NW M.Oil(5.251 - 7.044)  
 AK102(2.385 - 5.287) AK103(5.287 - 6.696) Jet A(2.385 - 4.176)

*ms 11/12/08*

Surrogate	Area	Amount	%Rec
o-Terphenyl	853875	41.1	91.4
Triacontane	771163	39.5	87.9

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

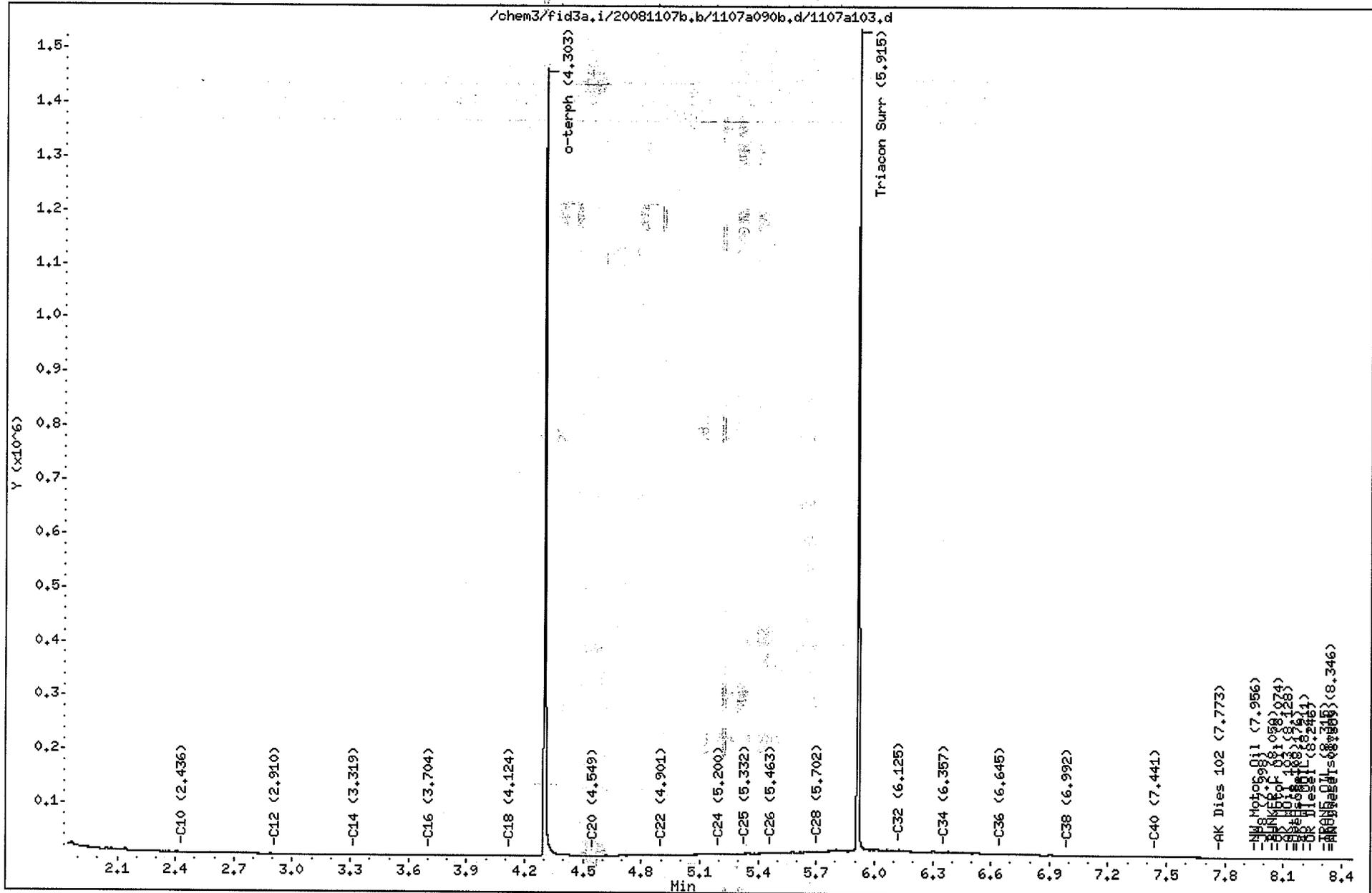
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Date : 08-NOV-2008 14:01  
Client ID: TDP22-3-081105  
Sample Info: NY44G

Instrument: fid3a.i

Operator: ms  
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a104.d ARI ID: NY44H  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.mClient ID: TDP23-3-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 14:16  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.813	0.022	203086	158235	GAS (Tol-C12)	518134	13
C8	1.865	-0.024	22227	45916	DIESEL (C12-C24)	203191	12
C10	2.436	0.000	5155	11496	M.OIL (C24-C38)	736170	58
C12	2.910	0.001	2394	1765	AK-102 (C10-C25)	313109	15
C14	3.321	-0.001	1598	1039	AK-103 (C25-C36)	595187	65
C16	3.701	-0.001	1237	245	OR.DIES (C10-C28)	437369	21
C18	4.126	0.000	1048	771	OR.MOIL (C28-C40)	751143	80
C20	4.554	0.009	1607	1333	JET-A (C10-C18)	199690	12
C22	4.901	0.001	1963	790	MIN.OIL (C24-C38)	736170	57
C24	5.200	-0.002	3052	3257	MSPiRIT (Tol-C12)	518134	33
C25	5.332	-0.006	3917	5072			
C26	5.455	-0.009	4232	4532			
C28	5.698	-0.001	6047	1321			
C32	6.135	0.004	8994	4094			
C34	6.375	0.007	8690	6314			
Filter Peak	8.448	0.003	4329	2578	JP-4 (Tol-C14)	559801	49
C36	6.651	0.004	9280	16504	CREOSOT (C8-C22)	518593	83
C38	6.996	0.002	6080	1809			
C40	7.435	-0.006	5288	1154	BUNKERC (C10-C38)	1041860	117
=====							
AZDIESEL (C10-C22)			235413	15			
AZMOIL (C22-C32)			406300	63			

Range Times: NW Diesel(2.959 - 5.251) NW Gas(1.740 - 2.959) NW M.Oil(5.251 - 7.044)  
 AK102(2.385 - 5.287) AK103(5.287 - 6.696) Jet A(2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	874509	42.1	93.6
Triacontane	800606	41.1	91.2

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a105.d ARI ID: NY441  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP24-11-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 14:30  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.821	0.030	183995	143435	GAS (Tol-C12)	513921	13
C8	1.898	0.008	16537	12185	DIESEL (C12-C24)	214256	13
C10	2.437	0.001	5289	8366	M.OIL (C24-C38)	705378	56
C12	2.909	0.000	2747	3401	AK-102 (C10-C25)	334389	16
C14	3.315	-0.008	1738	1135	AK-103 (C25-C36)	571143	62
C16	3.702	0.000	1415	306	OR.DIES (C10-C28)	468161	22
C18	4.127	0.001	1080	978	OR.MOIL (C28-C40)	700759	75
C20	4.553	0.009	1639	1978	JET-A (C10-C18)	219303	13
C22	4.903	0.003	1996	2183	MIN.OIL (C24-C38)	705378	55
C24	5.200	-0.002	3485	4373	MSPRIT (Tol-C12)	513921	32
C25	5.333	-0.005	4832	5789			
C26	5.457	-0.007	5115	8198			
C28	5.700	0.001	6365	1393			
C32	6.133	0.003	8862	1238			
C34	6.361	-0.007	9258	3497			
Filter Peak	8.452	0.006	4180	1583	JP-4 (Tol-C14)	560102	49
C36	6.641	-0.005	7217	1435	CREOSOT (C8-C22)	541624	87
C38	7.001	0.007	5941	3295			
C40	7.439	-0.002	5183	1339	BUNKERC (C10-C38)	1032656	116
AZDIESEL (C10-C22)			257305	16			
AZMOIL (C22-C32)			381579	59			

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	832826	40.1	89.2
Triacontane	805648	41.3	91.8

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a105.d

Date : 08-NOV-2008 14:30

Client ID: TDP24-11-081105

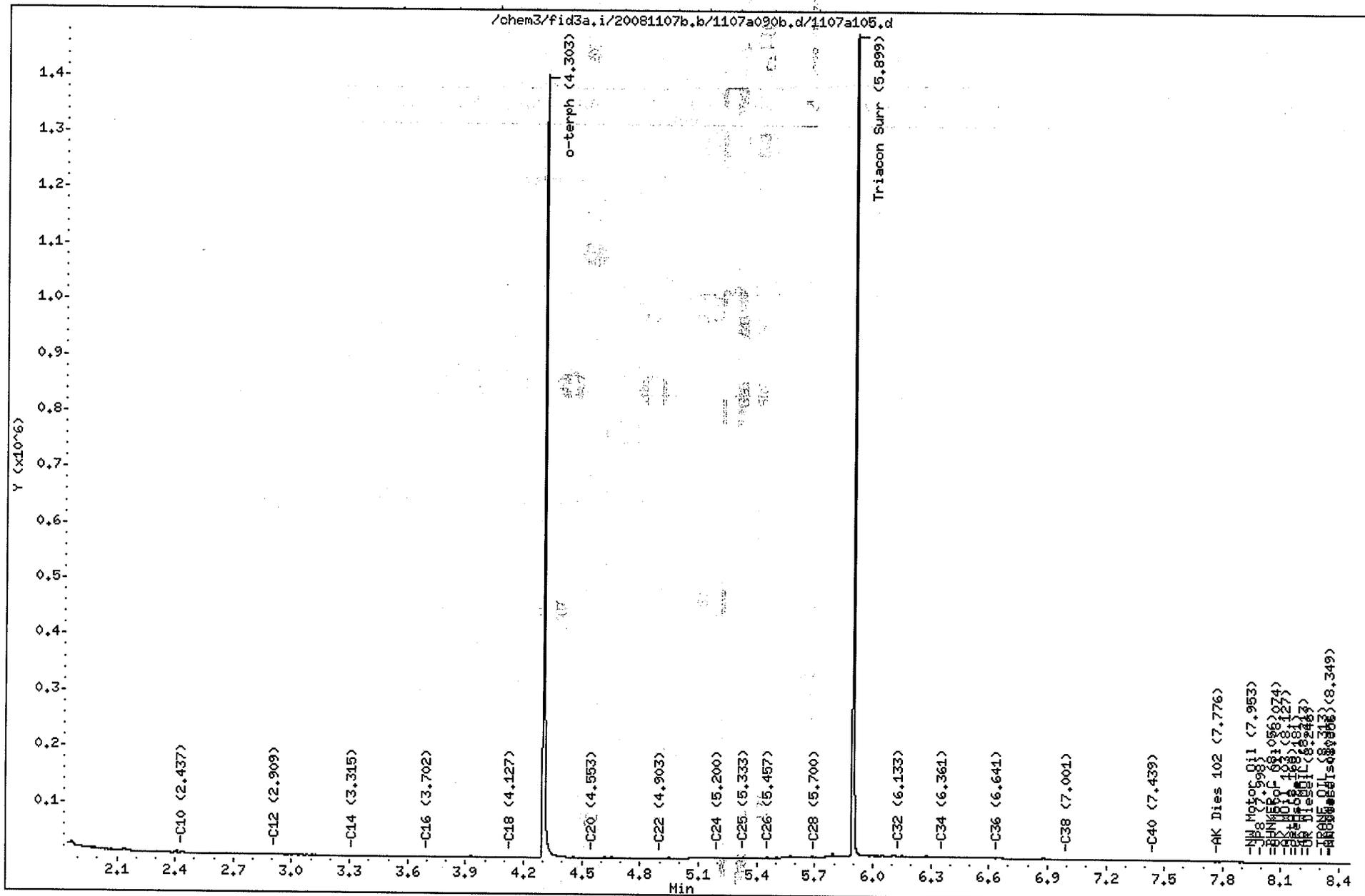
Sample Info: NY441

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a107.d ARI ID: NY44J  
 Method: /chem3/fid3a.i/20081107b.b/1107a090b.d/ftphfid3a.m Client ID: TDP25-9-081105  
 Instrument: fid3a.i Injection: 08-NOV-2008 15:00  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/12/2008  
 Macro: FID:3A111208

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.790	0.000	239559	158163	GAS (Tol-C12)	836837	21
C8	1.890	0.001	16640	11794	DIESEL (C12-C24)	1351112	80
C10	2.436	0.000	5414	12450	M.OIL (C24-C38)	6513744	516
C12	2.909	0.000	2707	3832	AK-102 (C10-C25)	1548711	72
C14	3.325	0.003	3465	1702	AK-103 (C25-C36)	5639028	616
C16	3.705	0.003	4845	2904	OR.DIES (C10-C28)	3040930	144
C18	4.131	0.005	5953	1890	OR.MOIL (C28-C40)	5550093	592
C20	4.545	0.000	11479	7031	JET-A (C10-C18)	409321	24
C22	4.897	-0.003	20687	11265	MIN.OIL (C24-C38)	6513744	508
C24	5.198	-0.004	34152	27649	MSPRIT (Tol-C12)	836837	53
C25	5.335	-0.002	39837	14190			
C26	5.460	-0.004	52055	21369			
C28	5.699	0.000	76467	24225			
C32	6.126	-0.005	88331	55042			
C34	6.369	0.002	66019	10435			
Filter Peak	8.443	-0.003	8437	5164	JP-4 (Tol-C14)	905258	80
C36	6.647	0.001	48172	8561	CREOSOT (C8-C22)	1253167	201
C38	6.994	0.000	33607	7224			
C40	7.438	-0.004	19060	7754	BUNKERC (C10-C38)	7980743	893
=====							
AZDIESEL (C10-C22)			949850	59			
AZMOIL (C22-C32)			4368865	679			
=====							

Range Times: NW Diesel (2.959 - 5.251) NW Gas (1.740 - 2.959) NW M.Oil (5.251 - 7.044)  
 AK102 (2.385 - 5.287) AK103 (5.287 - 6.696) Jet A (2.385 - 4.176)

Surrogate	Area	Amount	%Rec
o-Terphenyl	857942	41.3	91.9
Triacontane	784559	40.2	89.4

*ms 11/12/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	39499.8	12-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107b.b/1107a090b.d/1107a107.d

Date : 08-NOV-2008 15:00

Client ID: TDP25-9-081105

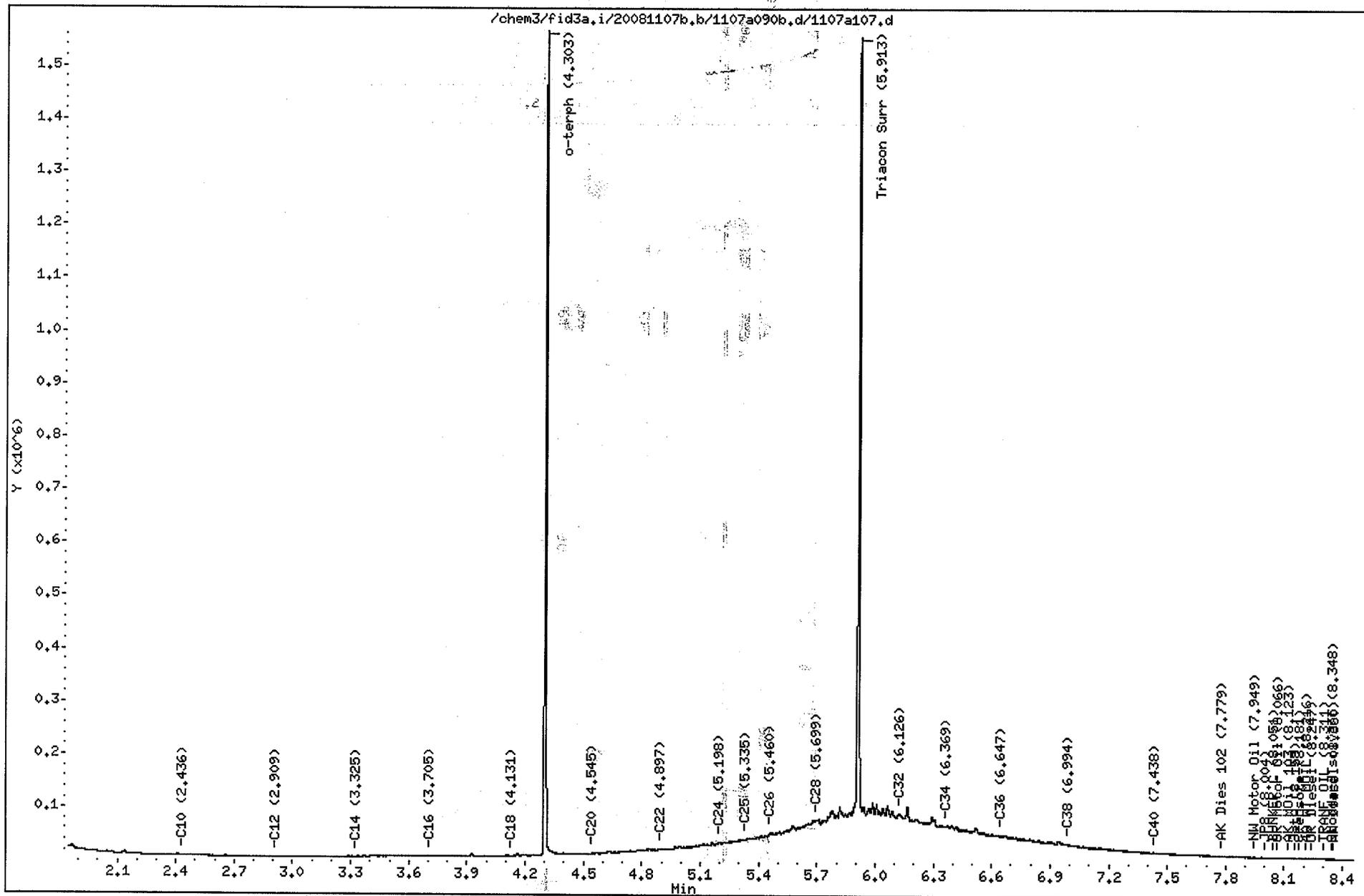
Sample Info: NY44J

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

<u>Client ID</u>	<u>O-TER TOT OUT</u>	
TDP16-3-081105	93.1%	0
110708MB	91.1%	0
TDP17-4-081105	91.9%	0
TDP17-4-081105 DP	93.6%	0
TDP18-4-081105	95.7%	0
TDP19-4-081105	94.4%	0
TDP20-3-081105	94.4%	0
TDP21-3-081105	90.7%	0
TDP22-3-081105	91.4%	0
TDP23-3-081105	93.6%	0
TDP24-11-081105	89.2%	0
TDP25-9-081105	91.9%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(68-122)

(50-150)

Prep Method: SW3550B  
Log Number Range: 08-30162 to 08-30171

**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/05/08

ARI Job: NY44  
Project: PHASE II  
025173

ARI ID	Client ID	Sample Amt	Final Vol	Basis	Prep Date
08-30162-NY44A	TDP16-3-081105	7.91 g	5.00 mL	D	11/07/08
08-30163-110708MB	Method Blank	10.0 g	5.00 mL	-	11/07/08
08-30163-NY44B	TDP17-4-081105	7.60 g	5.00 mL	D	11/07/08
08-30163-NY44BDP	TDP17-4-081105	7.60 g	5.00 mL	D	11/07/08
08-30164-NY44C	TDP18-4-081105	7.52 g	5.00 mL	D	11/07/08
08-30165-NY44D	TDP19-4-081105	7.35 g	5.00 mL	D	11/07/08
08-30166-NY44E	TDP20-3-081105	7.63 g	5.00 mL	D	11/07/08
08-30167-NY44F	TDP21-3-081105	9.07 g	5.00 mL	D	11/07/08
08-30168-NY44G	TDP22-3-081105	9.19 g	5.00 mL	D	11/07/08
08-30169-NY44H	TDP23-3-081105	9.14 g	5.00 mL	D	11/07/08
08-30170-NY44I	TDP24-11-081105	7.29 g	5.00 mL	D	11/07/08
08-30171-NY44J	TDP25-9-081105	9.75 g	5.00 mL	D	11/07/08

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 1

Matrix: Water

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Data Release Authorized: 

Reported: 11/11/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-110708 08-30172	Method Blank	11/07/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	75.5%
NY44K 08-30172	TDP16-GW-081105 HC ID: ---	11/07/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	84.3%
NY44L 08-30173	TDP18-GW-081105 HC ID: ---	11/07/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	84.9%
NY44M 08-30174	TDP25-GW-081105 HC ID: ---	11/07/08	11/07/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	77.2%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a012.d ARI ID: NY44MBW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 15:37  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.797	0.002	63548	79057	GAS (Tol-C12)	599695	25
C8	1.892	0.000	24302	57176	DIESEL (C12-C24)	219767	13
C10	2.438	-0.007	6996	13734	M.OIL (C24-C38)	751629	60
C12	2.912	-0.001	3177	2647	AK-102 (C10-C25)	374193	17
C14	3.329	0.004	2093	374	AK-103 (C25-C36)	578160	63
C16	3.710	0.006	1608	849	OR.DIES (C10-C28)	484558	23
C18	4.127	-0.003	1160	367	OR.MOIL (C28-C40)	847765	90
C20	4.546	-0.001	1608	1202	JET-A (C10-C18)	263058	15
C22	4.904	0.002	1510	598	MIN.OIL (C24-C38)	751629	59
C24	5.203	-0.005	2397	1986	MSPIRIT (Tol-C12)	599695	38
C25	5.350	0.005	2904	2787			
C26	5.470	-0.005	3474	1578			
C28	5.711	-0.004	5373	4019			
C32	6.158	0.002	9462	2812			
C34	6.395	-0.002	9485	1703			
Filter Peak	8.449	0.001	7514	3151	JP-4 (Tol-C14)	653413	58
C36	6.683	0.004	8826	4406	CREOSOT (C8-C22)	706305	113
C38	7.030	0.000	8296	5122			
C40	7.485	-0.002	7904	6429	BUNKERC (C10-C38)	1118666	125
AZDIESEL (C10-C22)			293211	18			
AZMOIL (C22-C32)			346955	54			

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	704662	34.0	75.5
Triacantane	640679	32.9	73.0

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a015.d ARI ID: NY44K  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 16:22 ✓  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.790	-0.005	52478	67814	GAS (Tol-C12)	590082	25
C8	1.885	-0.006	20888	20017	DIESEL (C12-C24)	1320659	78
C10	2.437	-0.007	6601	14924	M.OIL (C24-C38)	863332	68
C12	2.909	-0.003	6573	4933	AK-102 (C10-C25)	1534675	71
C14	3.328	0.003	8493	3429	AK-103 (C25-C36)	705537	77
C16	3.707	0.003	12378	8759	OR.DIES (C10-C28)	1724435	81
C18	4.135	0.005	9944	5845	OR.MOIL (C28-C40)	856092	91
C20	4.553	0.005	7394	5177	JET-A (C10-C18)	1103872	64
C22	4.903	0.001	6705	2780	MIN.OIL (C24-C38)	863332	67
C24	5.208	0.000	6617	5289	MSPRIT (Tol-C12)	590082	37
C25	5.346	0.001	6867	3582			
C26	5.474	-0.001	6837	5727			
C28	5.712	-0.003	8204	15611			
C32	6.157	0.001	10644	15507			
C34	6.400	0.003	9819	8217			
Filter Peak	8.445	-0.003	7221	3742	JP-4 (Tol-C14)	758430	67
C36	6.682	0.003	9495	9577	CREOSOT (C8-C22)	1708820	274
C38	7.028	-0.001	8058	4655			
C40	7.484	-0.004	7576	6503	BUNKERC (C10-C38)	2382122	267
=====							
AZDIESEL (C10-C22)			1371246	85			
AZMOIL (C22-C32)			528820	82			

Range Times: NW Diesel (2.962 - 5.258) NW Gas (1.745 - 2.962) NW M.Oil (5.258 - 7.080)  
 AK102 (2.395 - 5.295) AK103 (5.295 - 6.729) Jet A (2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	787212	37.9	84.3
Triacontane	695488	35.7	79.3

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a015.d

Date : 07-NOV-2008 16:22

Client ID:

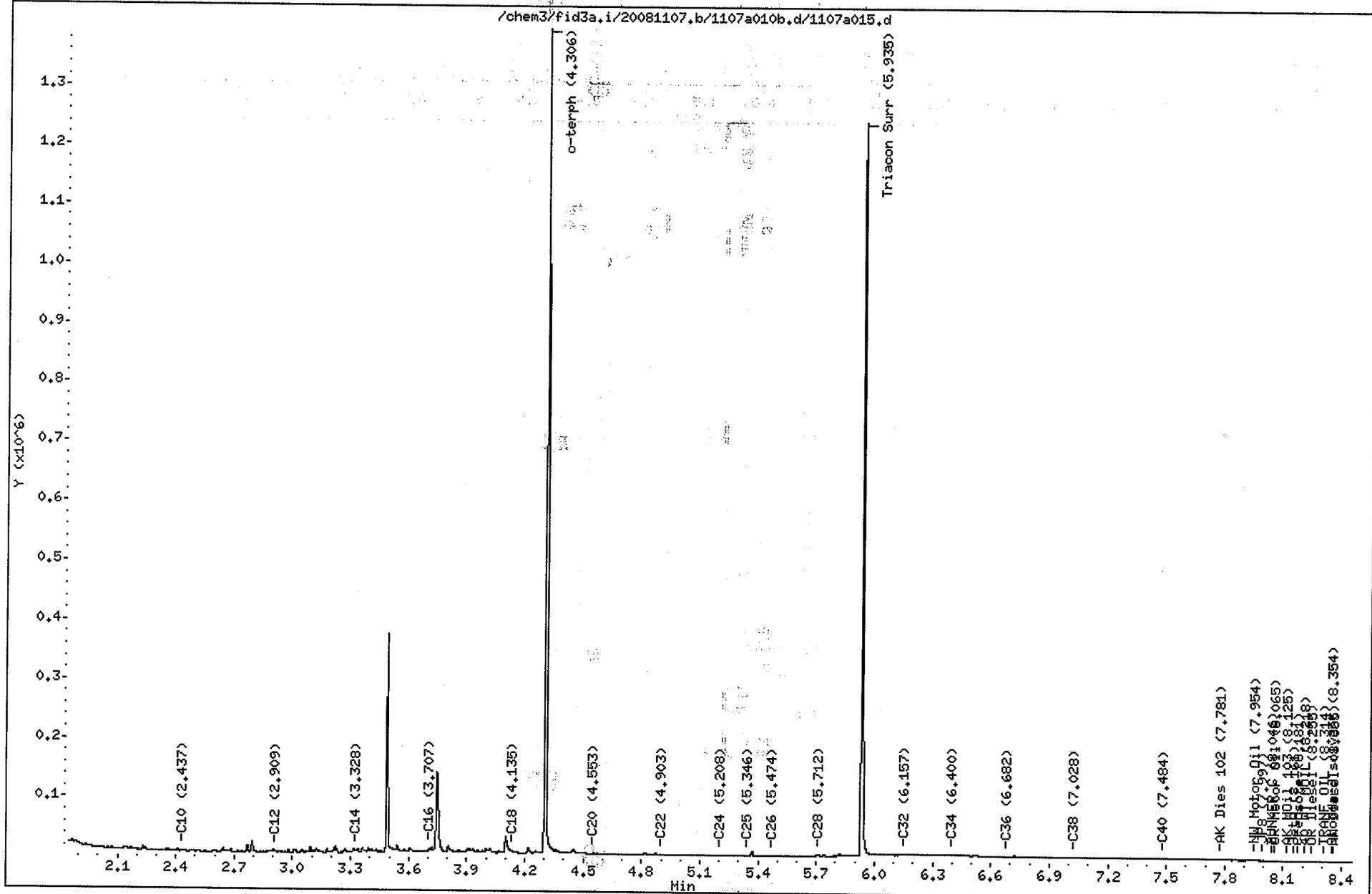
Sample Info: NY44K

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a016.d ARI ID: NY44L  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 16:37  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.788	-0.007	49260	67343	GAS (Tol-C12)	573073	24
C8	1.885	-0.006	22560	19147	DIESEL (C12-C24)	1172700	69
C10	2.437	-0.007	7213	16289	M.OIL (C24-C38)	1177017	93
C12	2.908	-0.004	4529	3191	AK-102 (C10-C25)	1378368	64
C14	3.324	-0.001	13352	11444	AK-103 (C25-C36)	963681	105
C16	3.704	0.000	8366	3973	OR.DIES (C10-C28)	1698537	80
C18	4.131	0.001	8302	5327	OR.MOIL (C28-C40)	1082859	116
C20	4.548	0.000	9115	3034	JET-A (C10-C18)	783730	46
C22	4.903	0.001	9664	2105	MIN.OIL (C24-C38)	1177017	92
C24	5.207	-0.001	12191	10739	MSPRIT (Tol-C12)	573073	36
C25	5.346	0.001	11456	13631			
C26	5.475	0.000	10956	9454			
C28	5.715	0.000	12640	9151			
C32	6.158	0.002	16048	27143			
C34	6.395	-0.002	14258	5109			
Filter Peak	8.450	0.003	7729	3234	JP-4 (Tol-C14)	747970	66
C36	6.679	0.000	12384	8062	CREOSOT (C8-C22)	1497264	240
C38	7.029	0.000	9677	1352			
C40	7.490	0.003	8711	1911	BUNKERC (C10-C38)	2533281	283
AZDIESEL (C10-C22)			1136597	71			
AZMOIL (C22-C32)			800803	124			

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	793137	38.2	84.9
Triacontane	729405	37.4	83.1

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a016.d

Date : 07-NOV-2008 16:37

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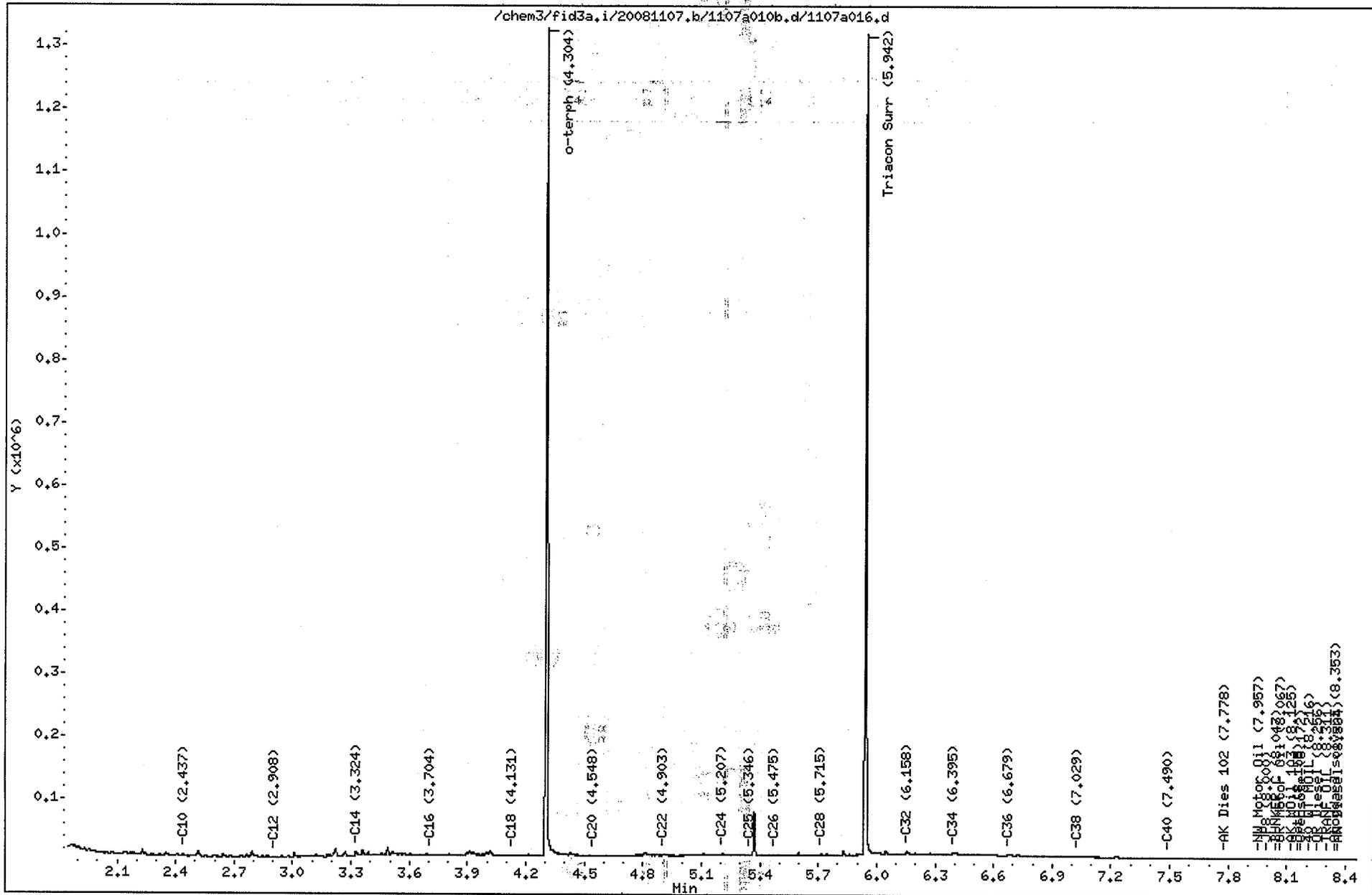
Instrument: fid3a.i

Sample Info: NY44L

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a017.d ARI ID: NY44M  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 16:51 ✓  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.789	-0.006	52483	46327	GAS (Tol-C12)	806836	34
C8	1.884	-0.007	21836	15947	DIESEL (C12-C24)	1044905	62
C10	2.445	0.000	7673	6305	M.OIL (C24-C38)	1253510	99
C12	2.911	-0.001	5026	2497	AK-102 (C10-C25)	1321929	61
C14	3.328	0.003	5741	4300	AK-103 (C25-C36)	1038114	113
C16	3.705	0.001	6184	2053	OR.DIES (C10-C28)	1665667	79
C18	4.130	0.000	6769	937	OR.MOIL (C28-C40)	1103579	118
C20	4.547	-0.001	8601	3529	JET-A (C10-C18)	706945	41
C22	4.902	-0.001	10416	5435	MIN.OIL (C24-C38)	1253510	98
C24	5.206	-0.002	12458	12466	MSPRIT (Tol-C12)	806836	51
C25	5.343	-0.002	12544	6437			
C26	5.473	-0.002	12623	8464			
C28	5.720	0.005	12841	2286			
C32	6.152	-0.003	14995	14432			
C34	6.392	-0.005	12908	2573			
Filter Peak	8.446	-0.002	7589	2120	JP-4 (Tol-C14)	920340	81
C36	6.678	-0.001	10906	8900	CREOSOT (C8-C22)	1467535	235
C38	7.029	-0.001	9162	5850			
C40	7.492	0.004	8267	5770	BUNKERC (C10-C38)	2549807	285
AZDIESEL (C10-C22)			1025563	64			
AZMOIL (C22-C32)			901216	140			

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	720920	34.7	77.2
Triacontane	667510	34.2	76.1

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a017.d

Date : 07-NOV-2008 16:51

Client ID:

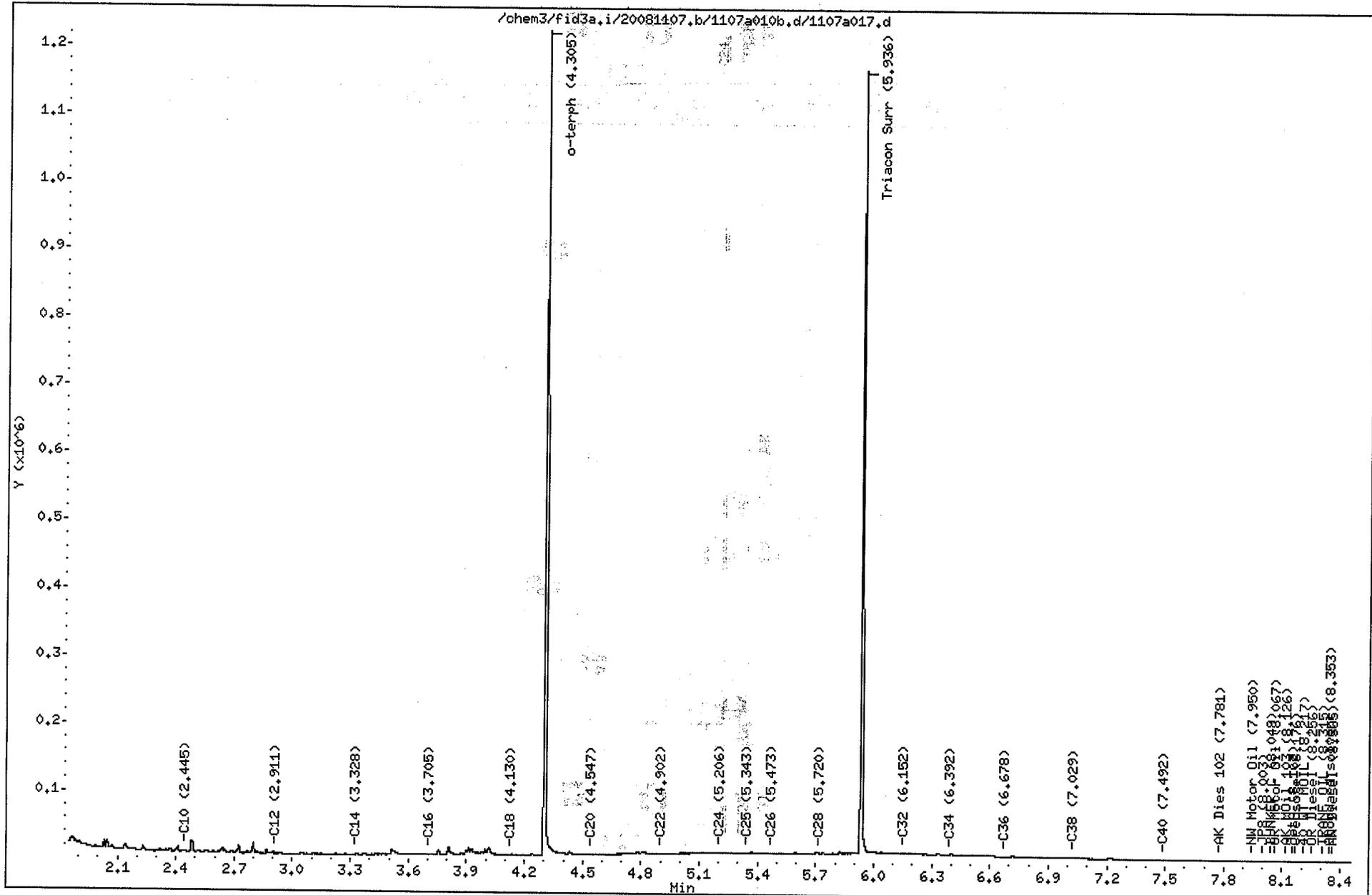
Sample Info: NY44M

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-110708	75.5%	0
LCS-110708	75.2%	0
LCSD-110708	85.4%	0
TDP16-GW-081105	84.3%	0
TDP18-GW-081105	84.9%	0
TDP25-GW-081105	77.2%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 08-30172 to 08-30174

ORGANICS ANALYSIS DATA SHEET  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1

Sample ID: LCS-110708  
 LCS/LCSD

Lab Sample ID: LCS-110708  
 LIMS ID: 08-30172  
 Matrix: Water  
 Data Release Authorized: *[Signature]*  
 Reported: 11/11/08

QC Report No: NY44-The Boeing Company  
 Project: PHASE II  
 025173  
 Date Sampled: 11/05/08  
 Date Received: 11/05/08

Date Extracted LCS/LCSD: 11/07/08

Sample Amount LCS: 500 mL  
 LCSD: 500 mL

Date Analyzed LCS: 11/07/08 15:52  
 LCSD: 11/07/08 16:07

Final Extract Volume LCS: 1.0 mL  
 LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS  
 LCSD: FID/MS

Dilution Factor LCS: 1.00  
 LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.03	3.00	67.7%	2.26	3.00	75.3%	10.7%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	75.2%	85.4%

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

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a013.d ARI ID: NY44LCSW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 15:52  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.789	-0.006	61229	74304	GAS (Tol-C12)	3480497	148
C8	1.887	-0.005	29440	28198	DIESEL (C12-C24)	17178872	1016
C10	2.444	-0.001	131880	92975	M.OIL (C24-C38)	976627	77
C12	2.913	0.000	482153	276441	AK-102 (C10-C25)	19826314	920
C14	3.325	0.000	726285	374686	AK-103 (C25-C36)	756853	83
C16	3.705	0.001	738340	527891	OR.DIES (C10-C28)	20154128	952
C18	4.131	0.001	505582	355928	OR.MOIL (C28-C40)	795129	85
C20	4.548	0.000	376643	293209	JET-A (C10-C18)	14736558	860
C22	4.904	0.001	152780	125392	MIN.OIL (C24-C38)	976627	76
C24	5.207	0.000	66387	58867	MSPRIT (Tol-C12)	3480497	220
C25	5.345	0.000	38971	34661			
C26	5.475	0.000	23903	33562			
C28	5.713	-0.002	9995	12383			
C32	6.156	0.001	8887	1242			
C34	6.393	-0.004	9327	7074			
Filter Peak	8.452	0.004	7720	1848	JP-4 (Tol-C14)	7393850	651
C36	6.679	0.000	8747	3141	CREOSOT (C8-C22)	19895655	3191
C38	7.026	-0.003	8193	3434			
C40	7.485	-0.003	7979	3346	BUNKERC (C10-C38)	20747753	2322
=====							
AZDIESEL (C10-C22)			18842987	1173			
AZMOIL (C22-C32)			1150155	179			

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

Surrogate	Area	Amount	%Rec
o-Terphenyl	701852	33.8	75.2
Triacontane	647165	33.2	73.7

*ms 11/11/08*

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a013.d

Date : 07-NOV-2008 15:52

Client ID:

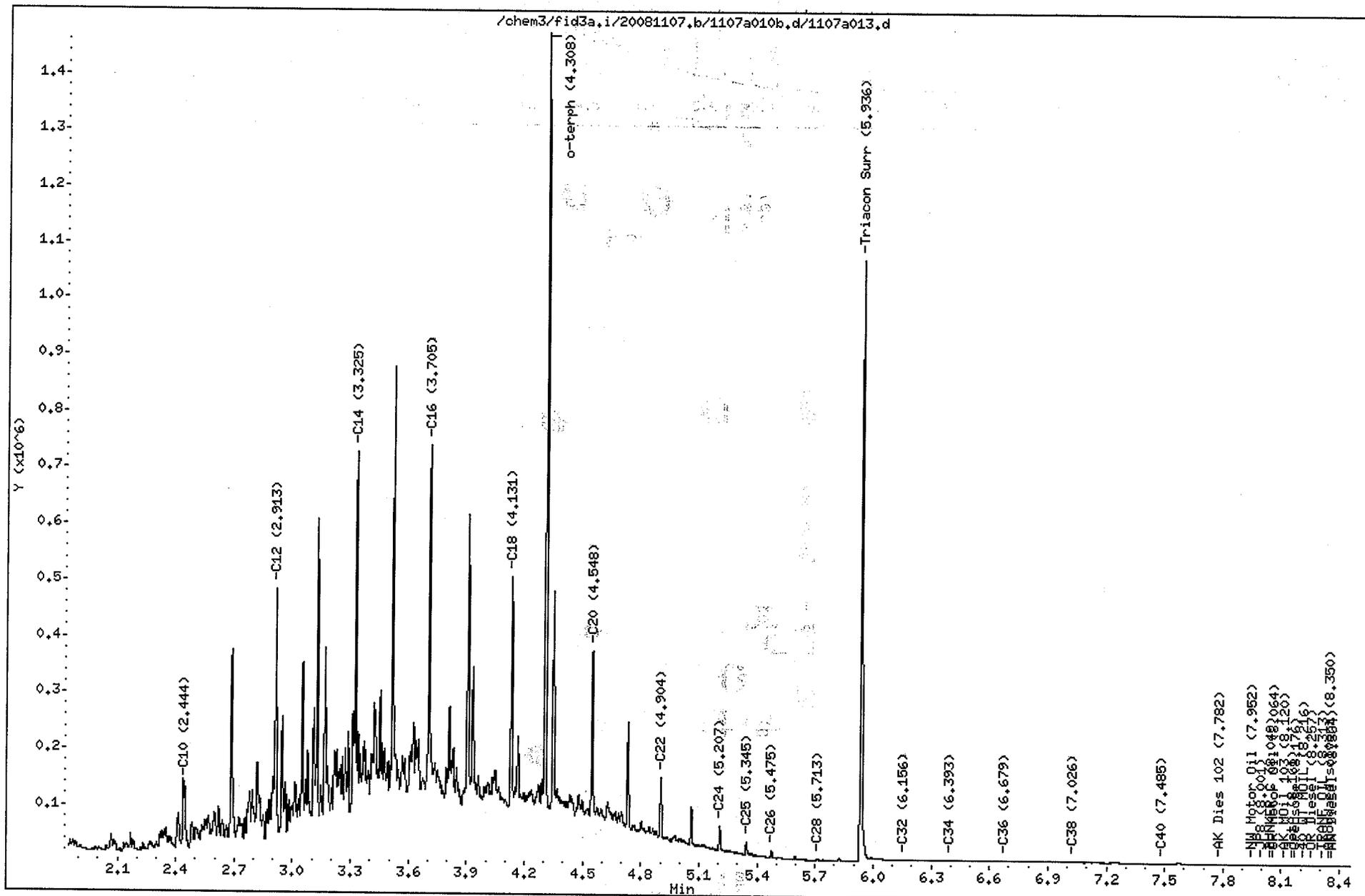
Sample Info: NY44LCSW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a014.d ARI ID: NY44LCSDW1  
 Method: /chem3/fid3a.i/20081107.b/1107a010b.d/ftphfid3a.m Client ID:  
 Instrument: fid3a.i Injection: 07-NOV-2008 16:07  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/11/2008  
 Macro: FID:3A111108

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.798	0.003	69173	75322	GAS (Tol-C12)	3681649	156
C8	1.895	0.003	34406	31679	DIESEL (C12-C24)	19096748	1129
C10	2.446	0.001	124222	100353	M.OIL (C24-C38)	951024	75
C12	2.913	0.001	482455	300522	AK-102 (C10-C25)	21885769	1016
C14	3.326	0.001	805134	392971	AK-103 (C25-C36)	787064	86
C16	3.706	0.002	829976	606725	OR.DIES (C10-C28)	22226111	1050
C18	4.133	0.003	564350	421687	OR.MOIL (C28-C40)	762330	81
C20	4.549	0.002	421886	348819	JET-A (C10-C18)	16124098	941
C22	4.903	0.000	174767	139096	MIN.OIL (C24-C38)	951024	74
C24	5.204	-0.004	72450	69322	MSPiRIT (Tol-C12)	3681649	233
C25	5.340	-0.005	43477	52897			
C26	5.469	-0.006	26838	33888			
C28	5.722	0.007	7670	1221			
C32	6.157	0.002	8884	2482			
C34	6.398	0.001	9061	3438			
Filter Peak	8.443	-0.004	7580	4384	JP-4 (Tol-C14)	7958483	700
C36	6.686	0.006	8452	1854	CREOSOT (C8-C22)	21967537	3524
C38	7.031	0.002	8022	2561			
C40	7.490	0.003	7725	2158	BUNKERC (C10-C38)	22802249	2552
AZDIESEL (C10-C22)		20828380	1297				
AZMOIL (C22-C32)		1253651	195				

Range Times: NW Diesel(2.962 - 5.258) NW Gas(1.745 - 2.962) NW M.Oil(5.258 - 7.080)  
 AK102(2.395 - 5.295) AK103(5.295 - 6.729) Jet A(2.395 - 4.180)

*ms 11/11/08*

Surrogate	Area	Amount	%Rec
o-Terphenyl	797489	38.4	85.4
Triacotane	733111	37.6	83.5

Analyte	RF	Curve Date
o-Terph Surr	20751.8	04-NOV-2008
Triacon Surr	19500.9	07-NOV-2008
Gas	23556.5	11-NOV-2008
Diesel	16911.5	04-NOV-2008
Motor Oil	12615.8	07-NOV-2008
AK102	21543.0	04-NOV-2008
AK103	9153.0	04-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	17141.6	04-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	21174.8	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081107.b/1107a010b.d/1107a014.d

Date : 07-NOV-2008 16:07

Client ID:

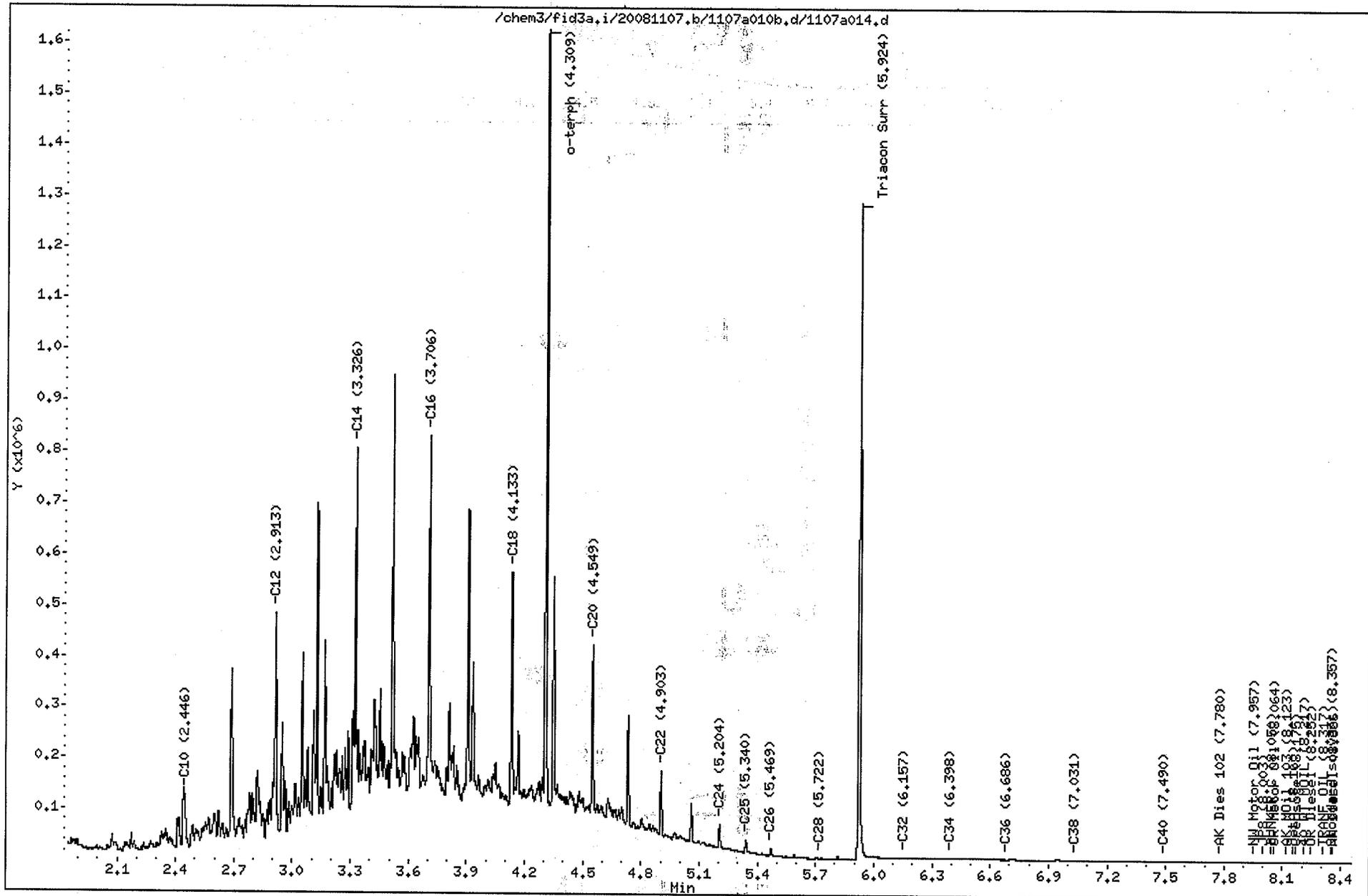
Sample Info: NY44LCSDW1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Water  
Date Received: 11/05/08

ARI Job: NY44  
Project: PHASE II  
025173

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
08-30172-110708MB	Method Blank	500 mL	1.00 mL	11/07/08
08-30172-110708LCS	Lab Control	500 mL	1.00 mL	11/07/08
08-30172-110708LCSD	Lab Control Dup	500 mL	1.00 mL	11/07/08
08-30172-NY44K	TDP16-GW-081105	500 mL	1.00 mL	11/07/08
08-30173-NY44L	TDP18-GW-081105	500 mL	1.00 mL	11/07/08
08-30174-NY44M	TDP25-GW-081105	500 mL	1.00 mL	11/07/08

**ORGANICS ANALYSIS DATA SHEET**  
**TOTAL DIESEL RANGE HYDROCARBONS**  
 NWTPHD by GC/FID  
 Page 1 of 1  
 Matrix: Soil

QC Report No: NY44-The Boeing Company  
 Project: PHASE II  
 025173  
 Date Received: 11/05/08

Data Release Authorized:  
 Reported: 11/21/08

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-111408	Method Blank	11/14/08	11/20/08	1.00	Diesel	5.0	< 5.0 U
08-30165	HC ID: ---		FID3A	1.0	Motor Oil o-Terphenyl	10	< 10 U 100%
NY44D	TDP19-4-081105	11/14/08	11/20/08	1.00	Diesel	6.6	23
08-30165	HC ID: DRO/MOTOR OIL		FID3A	1.0	Motor Oil o-Terphenyl	13	110 93.1%
NY44J	TDP25-9-081105	11/14/08	11/20/08	1.00	Diesel	26	61
08-30171	HC ID: DRO/MOTOR OIL		FID3A	5.0	Motor Oil o-Terphenyl	52	340 91.4%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.  
 DL-Dilution of extract prior to analysis.  
 RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.  
 Motor Oil quantitation on total peaks in the range from C24 to C38.  
 HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/21/08

Data file: /chem3/fid3a.i/20081119.b/1119a043.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY44MBS1  
Client ID:  
Injection: 20-NOV-2008 05:29  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.001	75275	74570	GAS (Tol-C12)	1154042	18
C8	1.875	0.001	28923	19667	DIESEL (C12-C24)	179420	12
C10	2.416	-0.004	11772	13731	M.OIL (C24-C38)	357485	30
C12	2.893	-0.002	4318	3382	AK-102 (C10-C25)	402042	21
C14	3.310	0.002	2192	1738	AK-103 (C25-C36)	289652	29
C16	3.690	0.006	1252	638	OR.DIES (C10-C28)	467594	24
C18	4.102	0.001	598	106	OR.MOIL (C28-C40)	367232	36
C20	4.507	-0.009	979	840	JET-A (C10-C18)	337414	20
C22	4.887	0.014	1056	963	MIN.OIL (C24-C38)	357485	28
C24	5.174	-0.002	1336	1026	MSPIRIT (Tol-C12)	1154042	73
C25	5.308	-0.004	1658	1150			
C26	5.437	-0.002	2082	1765			
C28	5.680	0.006	3162	1904			
C32	6.100	-0.002	4801	4107			
C34	6.333	-0.002	4256	1260			
Filter Peak	8.441	-0.007	2399	1432	JP-4 (Tol-C14)	1221764	108
C36	6.603	-0.003	3795	2319	CREOSOT (C8-C22)	992848	159
C38	6.937	-0.002	3232	1340			
C40	7.369	-0.003	2846	1921	BUNKERC (C10-C38)	756280	85
AZDIESEL (C10-C22)			318855	20			
AZMOIL (C22-C32)			183327	28			

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) Jet A (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	779696	45.0	100.0
Triacontane	697441	41.9	93.1

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a,i/20081119,b/1119a043,d

Date : 20-NOV-2008 05:29

Client ID:

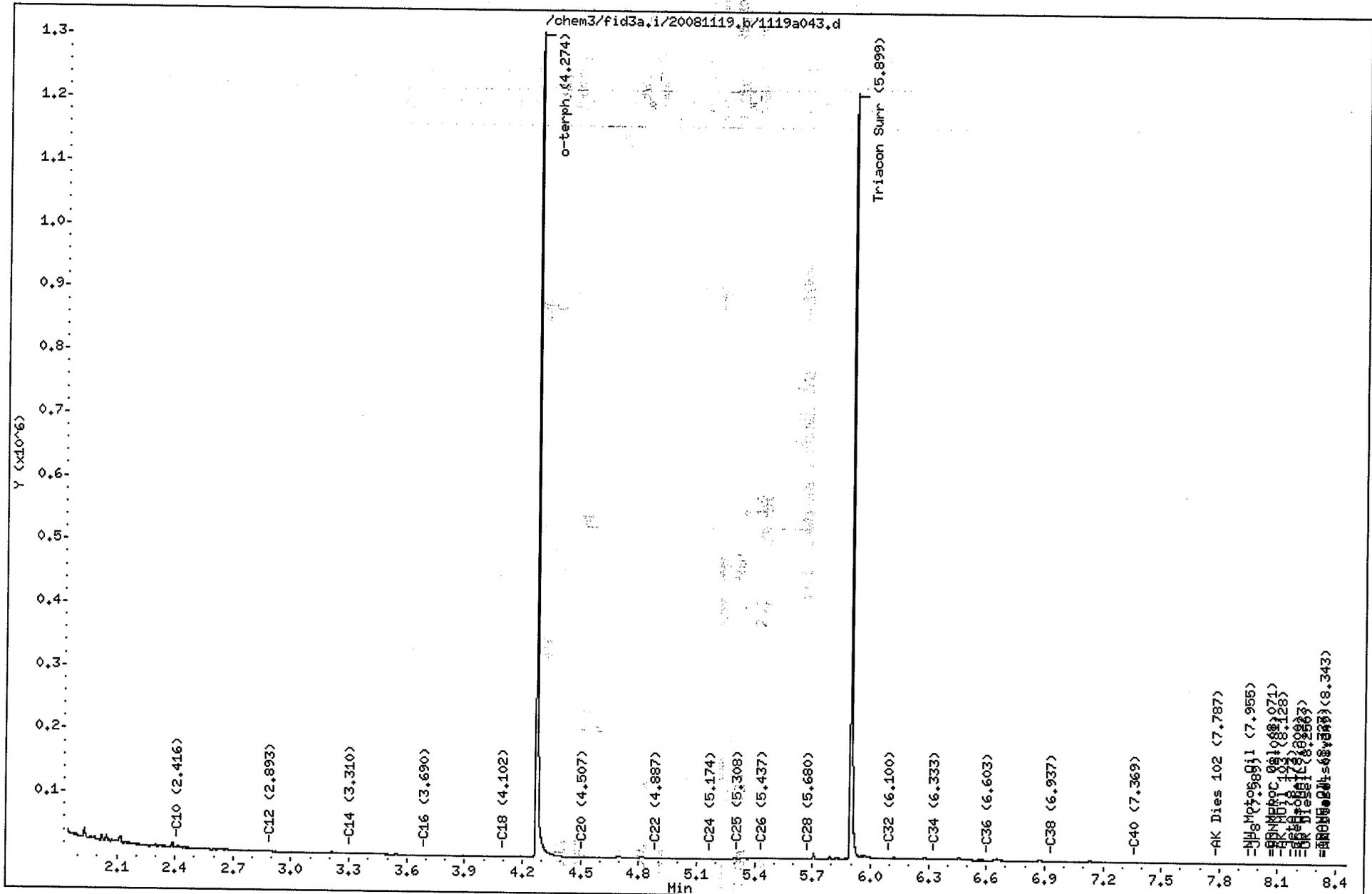
Sample Info: NY44HBS1

Column phase: ZB1-HT

Instrument: fid3a,i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

*pc*  
*11/21/08*

Data file: /chem3/fid3a.i/20081119.b/1119a075.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY44D  
Client ID:  
Injection: 20-NOV-2008 13:15  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.003	128137	101625	GAS (Tol-C12)	1180585	18
C8	1.873	-0.001	27768	27604	DIESEL (C12-C24)	2629076	174
C10	2.418	-0.002	13657	25878	M.OIL (C24-C38)	9454485	806
C12	2.893	-0.003	9959	8354	AK-102 (C10-C25)	3083003	162
C14	3.306	-0.002	10867	7632	AK-103 (C25-C36)	8419064	832
C16	3.681	-0.003	12488	10316	OR.DIES (C10-C28)	5423020	277
C18	4.096	-0.004	14835	17794	OR.MOIL (C28-C40)	7667306	760
C20	4.515	-0.001	25245	23485	JET-A (C10-C18)	957360	57
C22	4.872	0.000	44012	53616	MIN.OIL (C24-C38)	9454485	737
C24	5.182	0.006	67746	68923	MSPERIT (Tol-C12)	1180585	75
C25	5.321	0.008	103268	88216			
C26	5.442	0.002	79428	54408			
C28	5.677	0.003	109686	33919			
C32	6.099	-0.003	131561	79236			
C34	6.341	0.007	91297	28125			
Filter Peak	8.445	-0.003	9449	4618	JP-4 (Tol-C14)	1338330	118
C36	6.609	0.004	62349	47243	CREOSOT (C8-C22)	2685883	431
C38	6.935	-0.004	38405	9815			
C40	7.369	-0.003	22333	9938	BUNKERC (C10-C38)	12388037	1386
=====							
AZDIESEL (C10-C22)			2025219	126			
AZMOIL (C22-C32)			6666363	1035			
=====							

*770*  
*Mc*

Range Times: NW Diesel(2.946 - 5.226) NW Gas(1.724 - 2.946) NW M.OIL(5.226 - 6.989)  
AK102(2.370 - 5.262) AK103(5.262 - 6.655) Jet A(2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	725306	41.9	93.1
Triacotane	664211	39.9	88.6

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119.b/1119a075.d

Date : 20-NOV-2008 13:15

Client ID:

Sample Info: NY44D

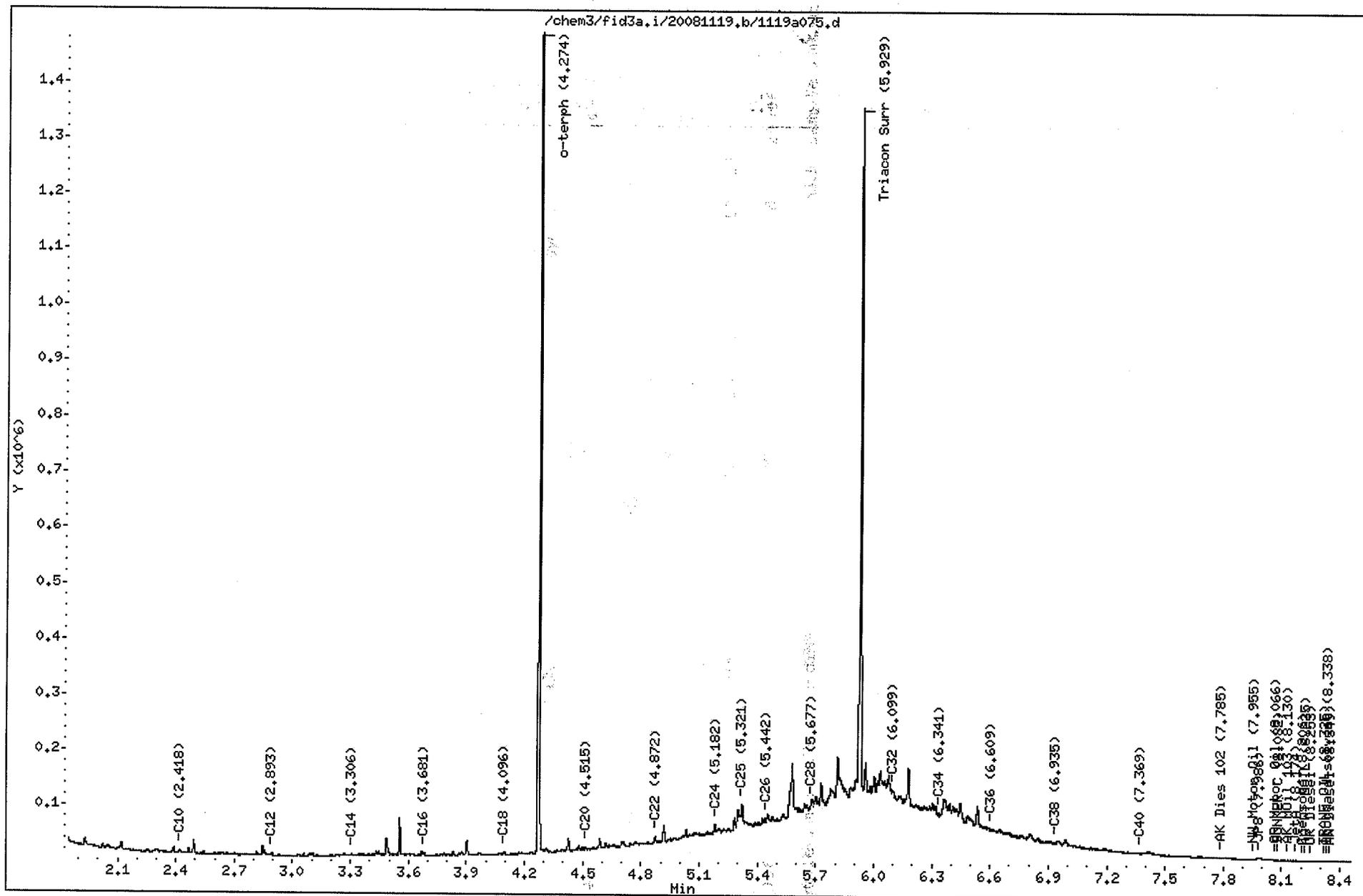
Column phase: ZB1-HT

Page 1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



PC  
11/21/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081119.b/1119a047.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY44J  
Client ID:  
Injection: 20-NOV-2008 06:27  
Dilution Factor: 5

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	70250	65244	GAS (Tol-C12)	1121255	17
C8	1.874	0.001	30028	26025	DIESEL (C12-C24)	1787128	118
C10	2.427	0.007	11301	8625	M.OIL (C24-C38)	7663446	653
C12	2.893	-0.003	4970	3769	AK-102 (C10-C25)	2134720	112
C14	3.308	0.000	4683	2732	AK-103 (C25-C36)	6722707	664
C16	3.686	0.003	6052	4147	OR.DIES (C10-C28)	4026612	205
C18	4.097	-0.004	7803	4033	OR.MOIL (C28-C40)	6352522	629
C20	4.515	-0.002	14654	10384	JET-A (C10-C18)	633887	38
C22	4.874	0.001	26415	8384	MIN.OIL (C24-C38)	7663446	598
C24	5.173	-0.003	43518	51586	MSPIRIT (Tol-C12)	1121255	71
C25	5.311	-0.001	49905	10932			
C26	5.437	-0.002	64503	39851			
C28	5.672	-0.002	90572	10810			
C32	6.109	-0.007	107709	74665			
C34	6.332	-0.002	76575	27354			
Filter Peak	8.446	-0.002	8379	2649	JP-4 (Tol-C14)	1228749	108
C36	6.606	0.001	56109	8924	CREOSOT (C8-C22)	2009402	322
C38	6.941	0.002	39032	7669			
C40	7.370	-0.002	22419	6991	BUNKERC (C10-C38)	9691162	1084
AZDIESEL (C10-C22)			1317087	82			
AZMOIL (C22-C32)			5406607	840			

Range Times: NW Diesel(2.946 - 5.226) NW Gas(1.724 - 2.946) NW M.Oil(5.226 - 6.989)  
AK102(2.370 - 5.262) AK103(5.262 - 6.655) Jet A(2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	142627	8.2	91.5
Triacontane	123418	7.4	82.4

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119.b/1119a047.d

Date : 20-NOV-2008 06:27

Client ID:

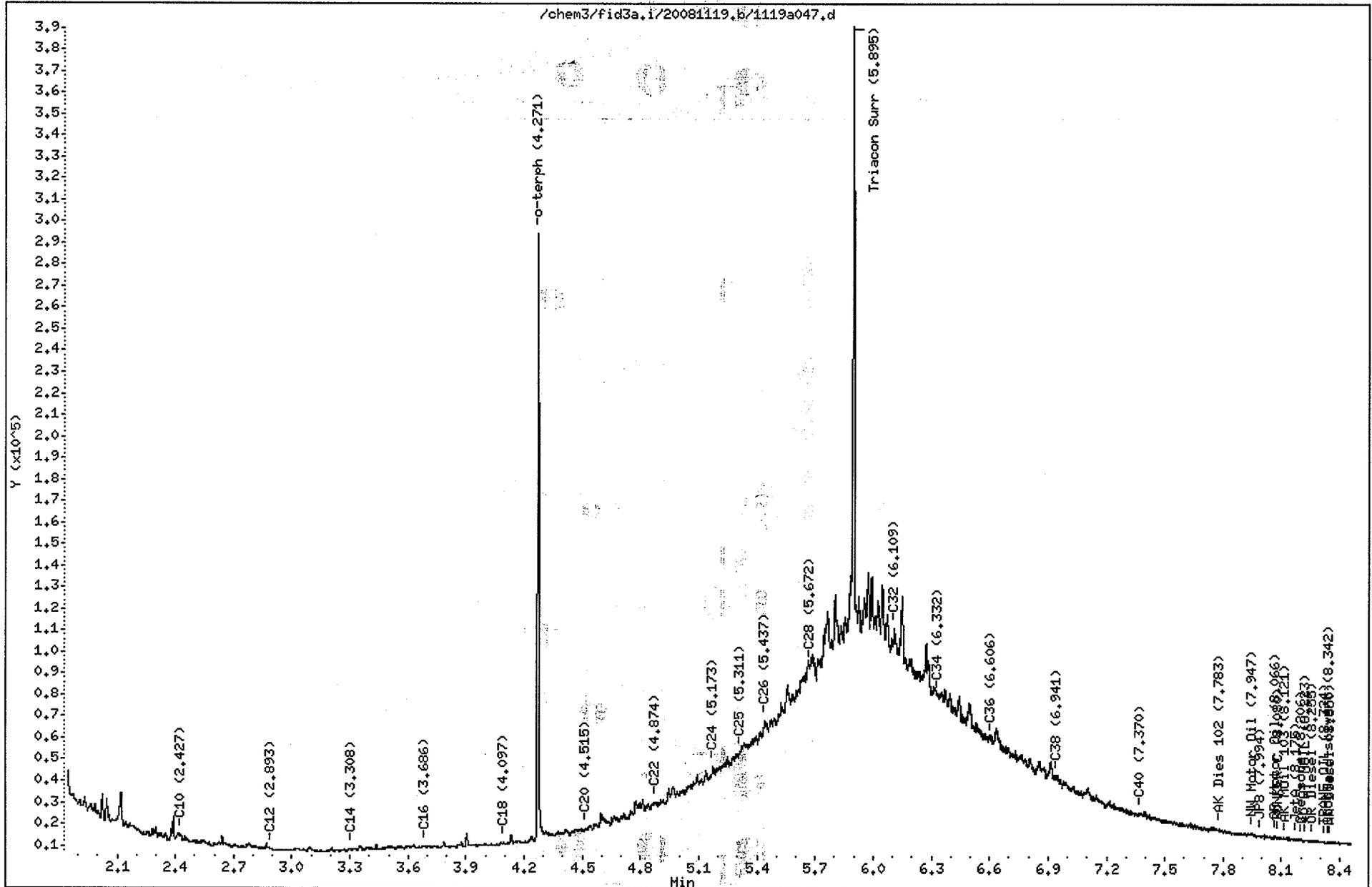
Instrument: fid3a.i

Sample Info: NY44J,5

Operator: ms

Column phase: ZB1-HT

Column diameter: 0.25



**TPHD SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
111408MBS	100%	0
111408LCS	101%	0
111408LCSD	98.9%	0
TDP19-4-081105	93.1%	0
TDP25-9-081105	91.4%	0

**LCS/MB LIMITS      QC LIMITS**

(OTER) = o-Terphenyl

(52-121)

(48-119)

Prep Method: SW3546  
Log Number Range: 08-30165 to 08-30171

**ORGANICS ANALYSIS DATA SHEET**

NWTPHD by GC/FID

Page 1 of 1

Sample ID: LCS-111408

LCS/LCSD

Lab Sample ID: LCS-111408

LIMS ID: 08-30165

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/14/08

Sample Amount LCS: 10.0 g

LCSD: 10.0 g

Date Analyzed LCS: 11/20/08 05:43

Final Extract Volume LCS: 1.0 mL

LCSD: 11/20/08 05:58

LCSD: 1.0 mL

Instrument/Analyst LCS: FID3A/PKC

Dilution Factor LCS: 1.00

LCSD: FID3A/PKC

LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	124	150	82.7%	123	150	82.0%	0.8%

**TPHD Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	101%	98.9%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.

Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/21/08

Data file: /chem3/fid3a.i/20081119.b/1119a044.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY44LCSS1  
Client ID:  
Injection: 20-NOV-2008 05:43  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.002	115035	142231	GAS (Tol-C12)	5173256	79
C8	1.871	-0.003	54401	52461	DIESEL (C12-C24)	18789553	1241
C10	2.418	-0.003	315399	178563	M.OIL (C24-C38)	592425	51
C12	2.894	-0.002	633860	336663	AK-102 (C10-C25)	22411276	1180
C14	3.307	-0.001	823639	380694	AK-103 (C25-C36)	504767	50
C16	3.683	-0.001	811872	595081	OR.DIES (C10-C28)	22710651	1158
C18	4.102	0.002	540114	410963	OR.MOIL (C28-C40)	326342	32
C20	4.517	0.000	420794	292179	JET-A (C10-C18)	16964961	1008
C22	4.872	0.000	173499	126489	MIN.OIL (C24-C38)	592425	46
C24	5.175	-0.001	74119	52215	MSPiRIT (Tol-C12)	5173256	327
C25	5.310	-0.002	42352	46961			
C26	5.439	-0.001	23938	29534			
C28	5.673	-0.001	8102	9572			
C32	6.111	0.009	6089	10249			
C34	6.338	0.004	3560	2479			
Filter Peak	8.448	0.000	2368	943	JP-4 (Tol-C14)	9584191	844
C36	6.608	0.003	3170	1449	CREOSOT (C8-C22)	22927032	3677
C38	6.938	-0.001	2868	1825			
C40	7.373	0.001	2717	865	BUNKERC (C10-C38)	22969386	2570
AZDIESEL (C10-C22)			21234148	1322			
AZMOIL (C22-C32)			1116874	173			

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) Jet A (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	787910	45.5	101.1
Triacontane	705946	42.4	94.2

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119.b/1119a044.d

Date : 20-NOV-2008 05:43

Client ID:

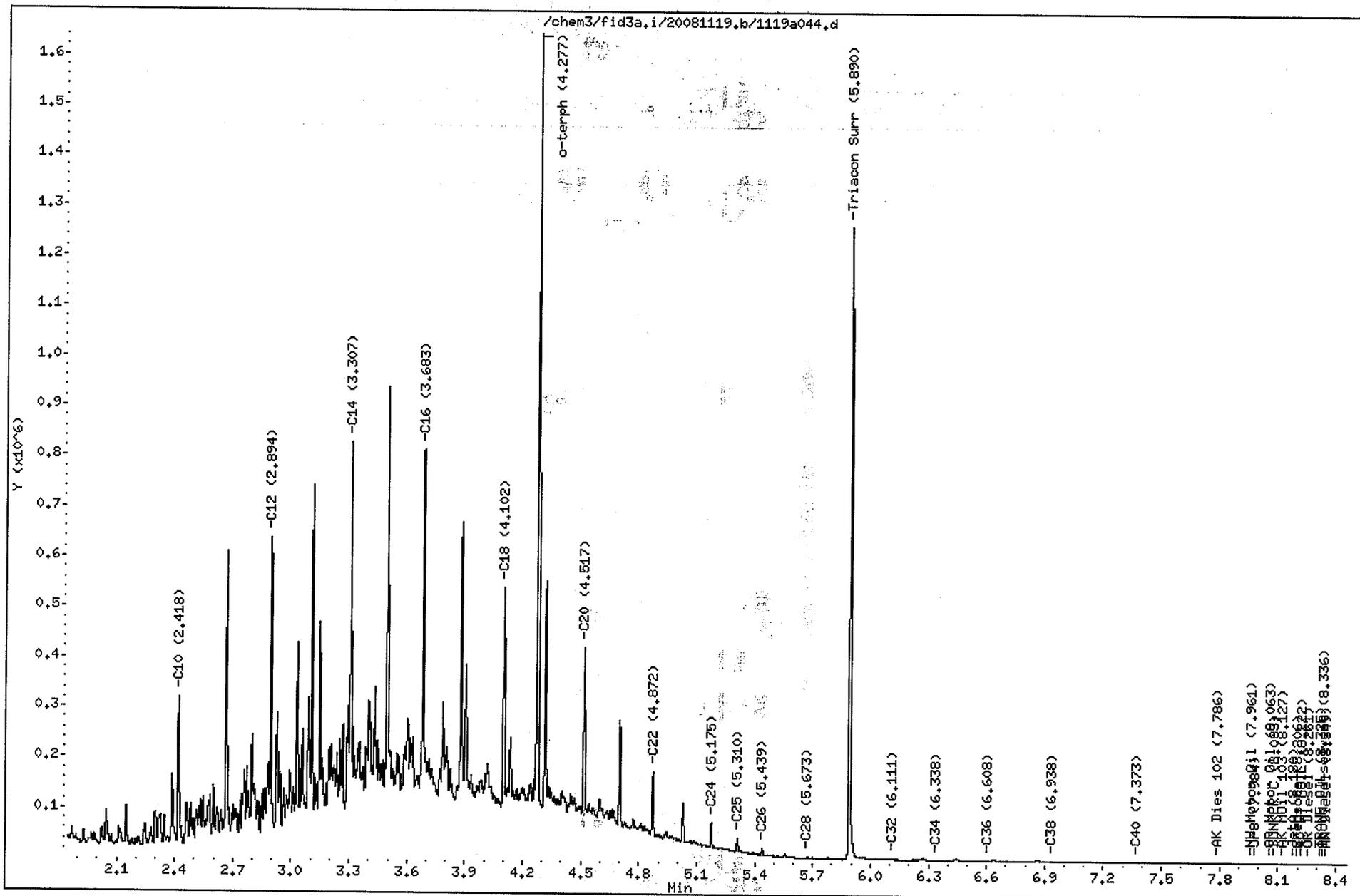
Sample Info: NY44LCSS1

Column phase: ZB1-HT

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/2/08

Data file: /chem3/fid3a.i/20081119.b/1119a045.d  
Method: /chem3/fid3a.i/20081119.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/20/2008  
Macro: FID:3A111308

ARI ID: NY44LCSDS1  
Client ID:  
Injection: 20-NOV-2008 05:58  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.002	157101	153367	GAS (Tol-C12)	5112551	78
C8	1.871	-0.002	51989	51172	DIESEL (C12-C24)	18653313	1232
C10	2.418	-0.002	309734	175482	M.OIL (C24-C38)	607894	52
C12	2.894	-0.002	610088	332689	AK-102 (C10-C25)	22266571	1173
C14	3.307	0.000	789993	382035	AK-103 (C25-C36)	510775	50
C16	3.684	0.000	814667	575833	OR.DIES (C10-C28)	22577906	1151
C18	4.103	0.002	536354	408349	OR.MOIL (C28-C40)	305708	30
C20	4.518	0.001	405955	313972	JET-A (C10-C18)	16706957	993
C22	4.872	0.000	180358	137023	MIN.OIL (C24-C38)	607894	47
C24	5.177	0.001	73782	54785	MSPiRIT (Tol-C12)	5112551	323
C25	5.313	0.000	42907	46549			
C26	5.442	0.003	24189	20845			
C28	5.678	0.004	7926	9318			
C32	6.105	-0.003	3543	1195			
C34	6.333	-0.001	3316	2376			
Filter Peak	8.447	-0.001	2218	704	JP-4 (Tol-C14)	9493193	836
C36	6.604	-0.001	2977	1719	CREOSOT (C8-C22)	22780524	3654
C38	6.940	0.002	2680	480			
C40	7.374	0.002	2518	1553	BUNKERC (C10-C38)	22824939	2554
AZDIESEL (C10-C22)			21123379	1315			
AZMOIL (C22-C32)			1100559	171			

Range Times: NW Diesel (2.946 - 5.226) NW Gas (1.724 - 2.946) NW M.Oil (5.226 - 6.989)  
AK102 (2.370 - 5.262) AK103 (5.262 - 6.655) Jet A (2.370 - 4.150)

Surrogate	Area	Amount	%Rec
o-Terphenyl	771104	44.5	98.9
Triacontane	699736	42.0	93.4

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081119.b/1119a045.d

Date : 20-NOV-2008 05:58

Client ID:

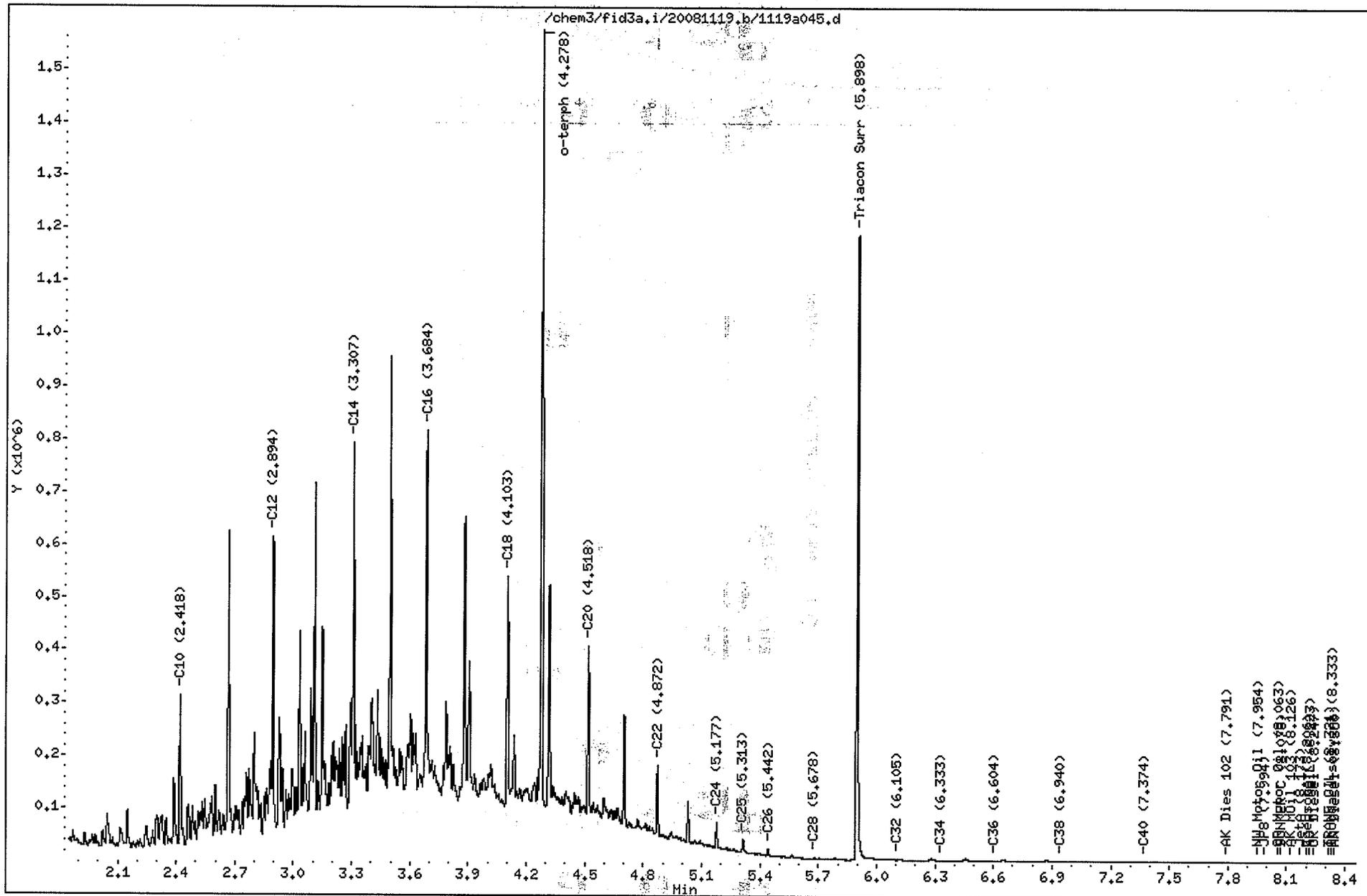
Instrument: fid3a.i

Sample Info: NY44LCSDS1

Operator: ms

Column phase: ZB1-HT

Column diameter: 0.25



**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/05/08

ARI Job: NY44  
Project: PHASE II  
025173

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
08-30165-111408MB1	Method Blank	10.0 g	1.00 mL	-	11/14/08
08-30165-111408LCS1	Lab Control	10.0 g	1.00 mL	-	11/14/08
08-30165-111408LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	11/14/08
08-30165-NY44D	TDP19-4-081105	7.56 g	1.00 mL	D	11/14/08
08-30171-NY44J	TDP25-9-081105	9.71 g	1.00 mL	D	11/14/08

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP16-3-081105

**SAMPLE**

Lab Sample ID: NY44A

LIMS ID: 08-30162

Matrix: Soil

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 74.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	7	7	
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.3	0.3	U
3050B	11/12/08	6010B	11/20/08	7440-47-3	Chromium	0.7	18.1	
3050B	11/12/08	6010B	11/20/08	7440-50-8	Copper	0.3	28.8	
3050B	11/12/08	6010B	11/20/08	7439-92-1	Lead	3	4	
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP17-4-081105  
SAMPLE

Lab Sample ID: NY44B

LIMS ID: 08-30163

Matrix: Soil

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 74.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	7	7	
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.3	0.3	U
3050B	11/12/08	6010B	11/20/08	7440-47-3	Chromium	0.7	21.3	
3050B	11/12/08	6010B	11/20/08	7440-50-8	Copper	0.3	34.3	
3050B	11/12/08	6010B	11/20/08	7439-92-1	Lead	3	5	
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.11	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP18-4-081105

SAMPLE

Lab Sample ID: NY44C

LIMS ID: 08-30164

Matrix: Soil

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 75.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	6	12	
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.3	0.6	
3050B	11/12/08	6010B	11/20/08	7440-47-3	Chromium	0.6	26.1	
3050B	11/12/08	6010B	11/20/08	7439-92-1	Lead	3	28	
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.23	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP19-4-081105

SAMPLE

Lab Sample ID: NY44D

LIMS ID: 08-30165

Matrix: Soil

Data Release Authorized 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 75.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	6	6	U
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.3	0.3	U
3050B	11/12/08	6010B	11/20/08	7440-47-3	Chromium	0.6	12.9	
3050B	11/12/08	6010B	11/20/08	7440-50-8	Copper	0.3	16.4	
3050B	11/12/08	6010B	11/20/08	7439-92-1	Lead	3	30	
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.07	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP20-3-081105

SAMPLE

Lab Sample ID: NY44E

LIMS ID: 08-30166

Matrix: Soil

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 75.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	6	6	U
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.3	0.3	U
3050B	11/12/08	6010B	11/20/08	<b>7440-47-3</b>	<b>Chromium</b>	0.6	<b>14.5</b>	
3050B	11/12/08	6010B	11/20/08	<b>7439-92-1</b>	<b>Lead</b>	3	<b>3</b>	
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP21-3-081105

SAMPLE

Lab Sample ID: NY44F

LIMS ID: 08-30167

Matrix: Soil

Data Release Authorized 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 89.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	5	5	U
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.2	0.3	
3050B	11/12/08	6010B	11/20/08	7440-47-3	Chromium	0.5	15.1	
3050B	11/12/08	6010B	11/20/08	7440-50-8	Copper	0.2	13.3	
3050B	11/12/08	6010B	11/20/08	7439-92-1	Lead	2	2	U
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP22-3-081105  
SAMPLE

Lab Sample ID: NY44G

LIMS ID: 08-30168

Matrix: Soil

Data Release Authorized 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 89.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	5	5	U
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/12/08	6010B	11/20/08	<b>7440-47-3</b>	<b>Chromium</b>	0.5	<b>24.0</b>	
3050B	11/12/08	6010B	11/20/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>15.6</b>	
3050B	11/12/08	6010B	11/20/08	<b>7439-92-1</b>	<b>Lead</b>	2	<b>4</b>	
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.04	0.04	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP23-3-081105  
SAMPLE

Lab Sample ID: NY44H

LIMS ID: 08-30169

Matrix: Soil

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 89.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	5	5	U
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/12/08	6010B	11/20/08	<b>7440-47-3</b>	<b>Chromium</b>	0.5	<b>24.6</b>	
3050B	11/12/08	6010B	11/20/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>17.7</b>	
3050B	11/12/08	6010B	11/20/08	<b>7439-92-1</b>	<b>Lead</b>	2	<b>11</b>	
CLP	11/12/08	7471A	11/14/08	<b>7439-97-6</b>	<b>Mercury</b>	0.05	<b>0.11</b>	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP25-9-081105  
SAMPLE

Lab Sample ID: NY44J

LIMS ID: 08-30171

Matrix: Soil

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Percent Total Solids: 94.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	5	5	U
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/12/08	6010B	11/20/08	7440-47-3	Chromium	0.5	35.8	
3050B	11/12/08	6010B	11/20/08	7440-50-8	Copper	0.2	14.3	
3050B	11/12/08	6010B	11/20/08	7439-92-1	Lead	2	2	
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.04	0.04	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP19-4-081105

DUPLICATE

Lab Sample ID: NY44D

LIMS ID: 08-30165

Matrix: Soil

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	6 U	10	50.0%	+/- 6	L
Cadmium	6010B	0.3 U	0.5	50.0%	+/- 0.3	L
Chromium	6010B	12.9	19.8	42.2%	+/- 20%	*
Copper	6010B	16.4	30.6	60.4%	+/- 20%	*
Lead	6010B	30	70	80.0%	+/- 20%	*
Mercury	7471A	0.07	0.08	13.3%	+/- 0.05	L

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET  
TOTAL METALS  
Page 1 of 1

Sample ID: TDP19-4-081105  
MATRIX SPIKE

Lab Sample ID: NY44D  
LIMS ID: 08-30165  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	6 U	267	260	103%	
Cadmium	6010B	0.3 U	60.9	64.9	93.8%	
Chromium	6010B	12.9	82.5	64.9	107%	
Copper	6010B	16.4	94.4	64.9	120%	
Lead	6010B	30	305	260	106%	
Mercury	7471A	0.07	0.57	0.476	105%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: LAB CONTROL**

Page 1 of 1

Lab Sample ID: NY44LCS

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30167

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: NA

Reported: 11/21/08

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	211	200	106%	
Cadmium	6010B	48.9	50.0	97.8%	
Chromium	6010B	50.9	50.0	102%	
Copper	6010B	52.0	50.0	104%	
Lead	6010B	217	200	108%	
Mercury	7471A	1.07	1.00	107%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: NY44MB

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30167

Project: PHASE II

Matrix: Soil

025173

Data Release Authorized: 

Date Sampled: NA

Reported: 11/21/08

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/12/08	6010B	11/20/08	7440-38-2	Arsenic	5	5	U
3050B	11/12/08	6010B	11/20/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/12/08	6010B	11/20/08	7440-47-3	Chromium	0.5	0.5	U
3050B	11/12/08	6010B	11/20/08	7440-50-8	Copper	0.2	0.2	U
3050B	11/12/08	6010B	11/20/08	7439-92-1	Lead	2	2	U
CLP	11/12/08	7471A	11/14/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP16-GW-081105

SAMPLE

Lab Sample ID: NY44K

LIMS ID: 08-30172

Matrix: Water

Data Release Authorized 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/14/08	7440-38-2	Arsenic	0.2	35.0	
6010B	11/10/08	6010B	11/20/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/20/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/20/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: TDP18-GW-081105

SAMPLE

Lab Sample ID: NY44L

LIMS ID: 08-30173

Matrix: Water

Data Release Authorized: 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/14/08	7440-38-2	Arsenic	0.2	1.8	
6010B	11/10/08	6010B	11/20/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/20/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/20/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP25-GW-081105  
SAMPLE

Lab Sample ID: NY44M

LIMS ID: 08-30174

Matrix: Water

Data Release Authorized 

Reported: 11/21/08

QC Report No: NY44-The Boeing Company

Project: PHASE II

025173

Date Sampled: 11/05/08

Date Received: 11/05/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/14/08	7440-38-2	Arsenic	0.2	4.0	
6010B	11/10/08	6010B	11/20/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/20/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/20/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: TDP16-GW-081105  
DUPLICATE

Lab Sample ID: NY44K  
LIMS ID: 08-30172  
Matrix: Water  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	35.0	35.5	1.4%	+/- 20%	
Cadmium	6010B	2 U	2 U	0.0%	+/- 2	L
Chromium	6010B	5 U	5 U	0.0%	+/- 5	L
Copper	6010B	2 U	2 U	0.0%	+/- 2	L
Lead	200.8	1 U	1 U	0.0%	+/- 1	L
Mercury	7470A	0.1 U	0.1 U	0.0%	+/- 0.1	L

Reported in µg/L

\*-Control Limit Not Met  
L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: TDP16-GW-081105  
MATRIX SPIKE

Lab Sample ID: NY44K  
LIMS ID: 08-30172  
Matrix: Water  
Data Release Authorized:   
Reported: 11/21/08

QC Report No: NY44-The Boeing Company  
Project: PHASE II  
025173  
Date Sampled: 11/05/08  
Date Received: 11/05/08

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	35.0	57.1	25.0	88.4%	
Cadmium	6010B	2.00 U	492	500	98.4%	
Chromium	6010B	5.00 U	491	500	98.2%	
Copper	6010B	2.00 U	524	500	105%	
Lead	200.8	1.00 U	23.0	25.0	92.0%	
Mercury	7470A	0.100 U	1.04	1.00	104%	

Reported in µg/L

N-Control Limit Not Met  
H-% Recovery Not Applicable, Sample Concentration Too High  
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NY44LCS

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30173

Project: PHASE II

Matrix: Water

025173

Data Release Authorized: *[Signature]*

Date Sampled: NA

Reported: 11/21/08

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	23.3	25.0	93.2%	
Cadmium	6010B	488	500	97.6%	
Chromium	6010B	490	500	98.0%	
Copper	6010B	490	500	98.0%	
Lead	200.8	23	25	92.0%	
Mercury	7470A	2.2	2.0	110%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS**

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: NY44MB

QC Report No: NY44-The Boeing Company

LIMS ID: 08-30173

Project: PHASE II

Matrix: Water

025173

Data Release Authorized 

Date Sampled: NA

Reported: 11/21/08

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/14/08	7440-38-2	Arsenic	0.2	0.2	U
6010B	11/10/08	6010B	11/20/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/20/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/20/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/14/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

November 25, 2008

Tim Syverson  
Landau Associates, Inc.  
130 Second Ave  
Edmonds, WA 98020

**RE: Project: Boeing Thompson Seattle/Phase II, 025173**  
**ARI Job No.: NY64**

Dear Tim:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, the analytical results for the above referenced project. Analytical Resources, Inc. (ARI) accepted eight soil samples, six water samples, and a trip blank on November 6, 2008. Four coolers were received with temperatures of 3.4, 5.0, 5.4 and 8.6°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM PAHs, PCBs, NWTPH-HCID, NWTPH-Dx, Total, Dissolved, and TCLP Metals, as requested. Please note that the SIM PAH analysis was cancelled for all soil samples.

**Volatiles Analyses:** Continuing Calibrations had compounds outside of the 20% control limit for the 11/10/08, 11/12/08, and 11/13/08 volatiles analyses, but were accepted outliers under ARI SOPs. No further corrective action was taken.

The internal standard percent differences of d4-1,4-Dichlorobenzene were outside the control limits for samples **TDP28-11-081106** and **TDP31-12-081106**. The samples were re-analyzed and all internal standard percent differences were within control limits. Both sets of data have been included in this report for your review. No further corrective action was required.

The 5 mL purge LCS percent recovery of Chloroethane was outside the control limits high for **LCS-111008**. The LCSD percent recovery was within control limits. No further corrective action was required.

**Semivolatiles Analyses:** The LCS and LCSD percent recoveries of Benzoic Acid fell outside the control limits for **LCS-111208**. No further corrective action is required for this compound as it is a known poor performer.

Several LCSD percent recoveries were outside the control limits high for **LCS-111208**. All LCS percent recoveries were within control limits. No further corrective action was required.

The LCS percent recovery of 2,4-Dinitrotoluene was outside the control limits high for **LCS-111108**. The LCSD percent recovery was within control limits. No further corrective action was required.

***There were no anomalies associated with the SIM PAH analysis.***



## Analytical Resources, Incorporated

Analytical Chemists and Consultants

*There were no anomalies associated with the PCBs analyses.*

**NWTPH-HCID Analyses:** Please note that all samples that were detected for Diesel or Motor Oil were re-analyzed by method NWTPH-Dx.

**NWTPH-Dx Analyses:** All water samples were extracted and analyzed outside the method recommended holding times per client request.

**Metal Analyses:** The duplicate relative percent difference lead was outside the control limit for sample **TPD26-8-081106**. All other quality control parameters were met for lead. No further corrective action was required.

Barium was present in the TCLP method blank at a level that was greater than the reporting limit. No further corrective action was required.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

NY64

- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

5.48.6 5.0,3.4

Date 11/6/08  
 Page 1 of 1



# Chain-of-Custody Record

Project Name Boring Thompson Project No. 023173

Project Location/Event Phase II

Sampler's Name Elizabeth Poole

Project Contact Kathryn Hawley

Send Results To K Hawley, T Siverson, A Halverson

Testing Parameters: TAN/ACID, NITRA Metals, VOCs Metals, ACBS, SVECS, PAAH SIM, DIS Metals, ICP Metals, Metals Metals

Turnaround Time  
 Standard  
 Accelerated  
 \_\_\_\_\_

Sample I.D.	Date	Time	Matrix	No. of Containers	TAN/ACID	NITRA Metals	VOCs Metals	ACBS	SVECS	PAAH SIM	DIS Metals	ICP Metals	Metals Metals	Observations/Comments
TDP26.8.081106	11/6/08	735	S	7	X	X	X	X	X					<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input checked="" type="checkbox"/> preserved w/methanol <input checked="" type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal water samples field filtered  Other <u>TH Sump 081106</u> <u>Not field filtered</u>
TDP27.11.081106		815			X	X	X							
TDP28.11.081106		845			X	X	X	X	X					
TDP29.11.081106		1145			X	X	X	X	X					
TDP30.11.081106		1035			X	X	X							
TDP31.12.081106		1100			X	X	X	X	X					
TDP32.11.081106		1130	↓	↓	X	X								
TDP26.GW.081106		0815	W	16	X	X	X	X	X	X				
TDP28.GW.081106		0910			X	X	X	X	X	X				
TDP29.GW.081106		1200			X	X	X	X	X	X				
TDP31.GW.081106		1130			X	X	X	X	X	X				
TH Sump.081106		1500	↓	10	X	X	X							
TH Drum.1. Soil		1500	S	7	X	X	X	X	X		X			
TH Drum.2. Water		1345	W	16	X	X	X	X	X	X		X		

Special Shipment/Handling or Storage Requirements \_\_\_\_\_

Method of Shipment \_\_\_\_\_

<b>Relinquished by</b> <u>M. Brunner</u> Signature <u>Mark Brunner</u> Printed Name <u>Landau Associates</u> Company Date <u>11/6/08</u> Time <u>1636</u>	<b>Received by</b> <u>Kimberly Figg</u> Signature <u>Kimberly Figg</u> Printed Name <u>ARI</u> Company Date <u>11/06/08</u> Time <u>1636</u>	<b>Relinquished by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____	<b>Received by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____
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Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Boeing

Project Name: Phase II

VOC No: \_\_\_\_\_

Delivered by: Hand

Assigned ARI Job No: NY64

Tracking No: \_\_\_\_\_

## Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? YES  NO
- Were custody papers properly filled out (ink, signed, etc.) YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) 3, 4, 5, 4, 8, 6, 5°C

Cooler Accepted by: KR Date: 11/06/08 Time: 1636

**Complete custody forms and attach all shipping documents**

## Log-In Phase:

- Was a temperature blank included in the cooler? YES  NO
- What kind of packing material was used? BW
- Was sufficient ice used (if appropriate)? YES  NO
- Were all bottles sealed in individual plastic bags? YES  NO
- Did all bottles arrive in good condition (unbroken)? YES  NO
- Were all bottle labels complete and legible? YES  NO
- Did all bottle labels and tags agree with custody papers? YES  NO
- Were all bottles used correct for the requested analyses? YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) YES  NO
- Were all VOC vials free of air bubbles? NA YES  NO
- Was sufficient amount of sample sent in each bottle? YES  NO  *one sample*

Samples Logged by: AV Date: 11/7/08 Time: 935

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

## Plain discrepancies or negative responses:

There were 3 extra samples marked TDP26.8.081106  
And TDP26.8.081106 was missing 3, so they were  
logged as TDP26.8.081106. TH Drum 1. Soil has one  
extra vial. Trip blanks added to the end

By: \_\_\_\_\_

Date: \_\_\_\_\_

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP26-8-081106

Page 1 of 1

SAMPLE

Lab Sample ID: NY64A

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30261

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized: 

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.00 g-dry-wt

Date Analyzed: 11/12/08 16:48

Purge Volume: 5.0 mL

Moisture: 17.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.7	< 0.7	U
74-83-9	Bromomethane	0.7	< 0.7	U
75-01-4	Vinyl Chloride	0.7	< 0.7	U
75-00-3	Chloroethane	0.7	< 0.7	U
75-09-2	Methylene Chloride	1.4	< 1.4	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.6</b>	<b>39</b>	
75-15-0	Carbon Disulfide	0.7	< 0.7	U
75-35-4	1,1-Dichloroethene	0.7	< 0.7	U
75-34-3	1,1-Dichloroethane	0.7	< 0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>0.7</b>	<b>5.1</b>	
67-66-3	Chloroform	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>3.6</b>	<b>4.2</b>	
71-55-6	1,1,1-Trichloroethane	0.7	< 0.7	U
56-23-5	Carbon Tetrachloride	0.7	< 0.7	U
108-05-4	Vinyl Acetate	3.6	< 3.6	U
75-27-4	Bromodichloromethane	0.7	< 0.7	U
78-87-5	1,2-Dichloropropane	0.7	< 0.7	U
10061-01-5	cis-1,3-Dichloropropene	0.7	< 0.7	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>0.7</b>	<b>66</b>	
124-48-1	Dibromochloromethane	0.7	< 0.7	U
79-00-5	1,1,2-Trichloroethane	0.7	< 0.7	U
71-43-2	Benzene	0.7	< 0.7	U
10061-02-6	trans-1,3-Dichloropropene	0.7	< 0.7	U
110-75-8	2-Chloroethylvinylether	3.6	< 3.6	U
75-25-2	Bromoform	0.7	< 0.7	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.6	< 3.6	U
591-78-6	2-Hexanone	3.6	< 3.6	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>0.7</b>	<b>1.0</b>	
79-34-5	1,1,2,2-Tetrachloroethane	0.7	< 0.7	U
108-88-3	Toluene	0.7	< 0.7	U
108-90-7	Chlorobenzene	0.7	< 0.7	U
100-41-4	Ethylbenzene	0.7	< 0.7	U
100-42-5	Styrene	0.7	< 0.7	U
75-69-4	Trichlorofluoromethane	0.7	< 0.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	< 1.4	U
1330-20-7	m,p-Xylene	0.7	< 0.7	U
95-47-6	o-Xylene	0.7	< 0.7	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	100%
Bromofluorobenzene	98.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP27-11-081106  
SAMPLE

Lab Sample ID: NY64B  
LIMS ID: 08-30262  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/14/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 11/12/08 17:15

Sample Amount: 5.40 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 13.2%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.9	< 0.9	U
74-83-9	Bromomethane	0.9	< 0.9	U
75-01-4	Vinyl Chloride	0.9	< 0.9	U
75-00-3	Chloroethane	0.9	< 0.9	U
75-09-2	Methylene Chloride	1.8	< 1.8	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.6</b>	<b>25</b>	
75-15-0	Carbon Disulfide	0.9	< 0.9	U
75-35-4	1,1-Dichloroethene	0.9	< 0.9	U
75-34-3	1,1-Dichloroethane	0.9	< 0.9	U
156-60-5	trans-1,2-Dichloroethene	0.9	< 0.9	U
156-59-2	cis-1,2-Dichloroethene	0.9	< 0.9	U
67-66-3	Chloroform	0.9	< 0.9	U
107-06-2	1,2-Dichloroethane	0.9	< 0.9	U
78-93-3	2-Butanone	4.6	< 4.6	U
71-55-6	1,1,1-Trichloroethane	0.9	< 0.9	U
56-23-5	Carbon Tetrachloride	0.9	< 0.9	U
108-05-4	Vinyl Acetate	4.6	< 4.6	U
75-27-4	Bromodichloromethane	0.9	< 0.9	U
78-87-5	1,2-Dichloropropane	0.9	< 0.9	U
10061-01-5	cis-1,3-Dichloropropene	0.9	< 0.9	U
79-01-6	Trichloroethene	0.9	< 0.9	U
124-48-1	Dibromochloromethane	0.9	< 0.9	U
79-00-5	1,1,2-Trichloroethane	0.9	< 0.9	U
71-43-2	Benzene	0.9	< 0.9	U
10061-02-6	trans-1,3-Dichloropropene	0.9	< 0.9	U
110-75-8	2-Chloroethylvinylether	4.6	< 4.6	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.6	< 4.6	U
591-78-6	2-Hexanone	4.6	< 4.6	U
127-18-4	Tetrachloroethene	0.9	< 0.9	U
79-34-5	1,1,2,2-Tetrachloroethane	0.9	< 0.9	U
108-88-3	Toluene	0.9	< 0.9	U
108-90-7	Chlorobenzene	0.9	< 0.9	U
100-41-4	Ethylbenzene	0.9	< 0.9	U
100-42-5	Styrene	0.9	< 0.9	U
75-69-4	Trichlorofluoromethane	0.9	< 0.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	< 1.8	U
1330-20-7	m,p-Xylene	0.9	< 0.9	U
95-47-6	o-Xylene	0.9	< 0.9	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	109%
d8-Toluene	99.7%
Bromofluorobenzene	97.6%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP28-11-081106

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**SAMPLE**

Lab Sample ID: NY64C

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30263

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized:

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.25 g-dry-wt

Date Analyzed: 11/12/08 17:42

Purge Volume: 5.0 mL

Moisture: 22.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	1.9	< 1.9	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.8</b>	<b>72</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>1.0</b>	<b>14</b>	
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>1.0</b>	<b>5.4</b>	
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>4.8</b>	<b>14</b>	
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	4.8	< 4.8	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	4.8	< 4.8	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.8	< 4.8	U
591-78-6	2-Hexanone	4.8	< 4.8	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
<b>108-88-3</b>	<b>Toluene</b>	<b>1.0</b>	<b>1.4</b>	
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	1.9	< 1.9	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	95.1%
Bromofluorobenzene	78.4%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP28-11-081106

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REANALYSIS

Lab Sample ID: NY64C

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30263

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized: 

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 6.40 g-dry-wt

Date Analyzed: 11/13/08 14:36

Purge Volume: 5.0 mL

Moisture: 22.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
75-09-2	Methylene Chloride	1.6	< 1.6	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.9</b>	<b>48</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.8</b>	<b>14</b>	
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>0.8</b>	<b>4.4</b>	
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>3.9</b>	<b>8.8</b>	
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	3.9	< 3.9	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
71-43-2	Benzene	0.8	< 0.8	U
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	3.9	< 3.9	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.9	< 3.9	U
591-78-6	2-Hexanone	3.9	< 3.9	U
127-18-4	Tetrachloroethene	0.8	< 0.8	U
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
<b>108-88-3</b>	<b>Toluene</b>	<b>0.8</b>	<b>1.2</b>	
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	< 1.6	U
1330-20-7	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	95.2%
d8-Toluene	94.9%
Bromofluorobenzene	82.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP29-11-081106

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SAMPLE

Lab Sample ID: NY64D

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30264

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized:

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.11 g-dry-wt

Date Analyzed: 11/12/08 18:09

Purge Volume: 5.0 mL

Moisture: 17.3%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.7	< 0.7	U
74-83-9	Bromomethane	0.7	< 0.7	U
75-01-4	Vinyl Chloride	0.7	< 0.7	U
75-00-3	Chloroethane	0.7	< 0.7	U
75-09-2	Methylene Chloride	1.4	< 1.4	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.5</b>	<b>95</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.7</b>	<b>22</b>	
75-35-4	1,1-Dichloroethene	0.7	< 0.7	U
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>0.7</b>	<b>0.7</b>	
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
156-59-2	cis-1,2-Dichloroethene	0.7	< 0.7	U
67-66-3	Chloroform	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>3.5</b>	<b>20</b>	
71-55-6	1,1,1-Trichloroethane	0.7	< 0.7	U
56-23-5	Carbon Tetrachloride	0.7	< 0.7	U
108-05-4	Vinyl Acetate	3.5	< 3.5	U
75-27-4	Bromodichloromethane	0.7	< 0.7	U
78-87-5	1,2-Dichloropropane	0.7	< 0.7	U
10061-01-5	cis-1,3-Dichloropropene	0.7	< 0.7	U
79-01-6	Trichloroethene	0.7	< 0.7	U
124-48-1	Dibromochloromethane	0.7	< 0.7	U
79-00-5	1,1,2-Trichloroethane	0.7	< 0.7	U
71-43-2	Benzene	0.7	< 0.7	U
10061-02-6	trans-1,3-Dichloropropene	0.7	< 0.7	U
110-75-8	2-Chloroethylvinylether	3.5	< 3.5	U
75-25-2	Bromoform	0.7	< 0.7	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.5	< 3.5	U
591-78-6	2-Hexanone	3.5	< 3.5	U
127-18-4	Tetrachloroethene	0.7	< 0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	0.7	< 0.7	U
<b>108-88-3</b>	<b>Toluene</b>	<b>0.7</b>	<b>0.9</b>	
108-90-7	Chlorobenzene	0.7	< 0.7	U
100-41-4	Ethylbenzene	0.7	< 0.7	U
100-42-5	Styrene	0.7	< 0.7	U
75-69-4	Trichlorofluoromethane	0.7	< 0.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	< 1.4	U
1330-20-7	m,p-Xylene	0.7	< 0.7	U
95-47-6	o-Xylene	0.7	< 0.7	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	97.8%
d8-Toluene	95.6%
Bromofluorobenzene	82.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP30-11-081106

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**SAMPLE**

Lab Sample ID: NY64E

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30265

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized: 

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.64 g-dry-wt

Date Analyzed: 11/12/08 18:36

Purge Volume: 5.0 mL

Moisture: 34.5%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.2	< 2.2	U
67-64-1	<b>Acetone</b>	<b>5.4</b>	<b>83</b>	
75-15-0	<b>Carbon Disulfide</b>	<b>1.1</b>	<b>22</b>	
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	<b>1,1-Dichloroethane</b>	<b>1.1</b>	<b>1.4</b>	
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
78-93-3	<b>2-Butanone</b>	<b>5.4</b>	<b>16</b>	
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.4	< 5.4	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
71-43-2	Benzene	1.1	< 1.1	U
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.4	< 5.4	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.4	< 5.4	U
591-78-6	2-Hexanone	5.4	< 5.4	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
108-88-3	Toluene	1.1	< 1.1	U
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2	< 2.2	U
1330-20-7	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	97.1%
d8-Toluene	97.3%
Bromofluorobenzene	86.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP31-12-081106

Page 1 of 1

SAMPLE

Lab Sample ID: NY64F

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30266

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized: 

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.76 g-dry-wt

Date Analyzed: 11/12/08 19:02

Purge Volume: 5.0 mL

Moisture: 22.5%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.9	< 0.9	U
74-83-9	Bromomethane	0.9	< 0.9	U
75-01-4	Vinyl Chloride	0.9	< 0.9	U
75-00-3	Chloroethane	0.9	< 0.9	U
75-09-2	Methylene Chloride	1.7	< 1.7	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.3</b>	<b>47</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.9</b>	<b>4.8</b>	
75-35-4	1,1-Dichloroethene	0.9	< 0.9	U
75-34-3	1,1-Dichloroethane	0.9	< 0.9	U
156-60-5	trans-1,2-Dichloroethene	0.9	< 0.9	U
156-59-2	cis-1,2-Dichloroethene	0.9	< 0.9	U
67-66-3	Chloroform	0.9	< 0.9	U
107-06-2	1,2-Dichloroethane	0.9	< 0.9	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>4.3</b>	<b>7.3</b>	
71-55-6	1,1,1-Trichloroethane	0.9	< 0.9	U
56-23-5	Carbon Tetrachloride	0.9	< 0.9	U
108-05-4	Vinyl Acetate	4.3	< 4.3	U
75-27-4	Bromodichloromethane	0.9	< 0.9	U
78-87-5	1,2-Dichloropropane	0.9	< 0.9	U
10061-01-5	cis-1,3-Dichloropropene	0.9	< 0.9	U
79-01-6	Trichloroethene	0.9	< 0.9	U
124-48-1	Dibromochloromethane	0.9	< 0.9	U
79-00-5	1,1,2-Trichloroethane	0.9	< 0.9	U
71-43-2	Benzene	0.9	< 0.9	U
10061-02-6	trans-1,3-Dichloropropene	0.9	< 0.9	U
110-75-8	2-Chloroethylvinylether	4.3	< 4.3	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.3	< 4.3	U
591-78-6	2-Hexanone	4.3	< 4.3	U
127-18-4	Tetrachloroethene	0.9	< 0.9	U
79-34-5	1,1,2,2-Tetrachloroethane	0.9	< 0.9	U
<b>108-88-3</b>	<b>Toluene</b>	<b>0.9</b>	<b>6.0</b>	
108-90-7	Chlorobenzene	0.9	< 0.9	U
100-41-4	Ethylbenzene	0.9	< 0.9	U
100-42-5	Styrene	0.9	< 0.9	U
75-69-4	Trichlorofluoromethane	0.9	< 0.9	U
<b>76-13-1</b>	<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>1.7</b>	<b>16</b>	
<b>1330-20-7</b>	<b>m,p-Xylene</b>	<b>0.9</b>	<b>1.6</b>	
<b>95-47-6</b>	<b>o-Xylene</b>	<b>0.9</b>	<b>3.0</b>	

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	111%
d8-Toluene	85.5%
Bromofluorobenzene	84.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP31-12-081106

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REANALYSIS

Lab Sample ID: NY64F

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30266

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized:

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.42 g-dry-wt

Date Analyzed: 11/13/08 15:03

Purge Volume: 5.0 mL

Moisture: 22.5%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.9	< 0.9	U
74-83-9	Bromomethane	0.9	< 0.9	U
75-01-4	Vinyl Chloride	0.9	< 0.9	U
75-00-3	Chloroethane	0.9	< 0.9	U
75-09-2	Methylene Chloride	1.8	< 1.8	U
67-64-1	Acetone	4.6	29	
75-15-0	Carbon Disulfide	0.9	2.7	
75-35-4	1,1-Dichloroethene	0.9	< 0.9	U
75-34-3	1,1-Dichloroethane	0.9	< 0.9	U
156-60-5	trans-1,2-Dichloroethene	0.9	< 0.9	U
156-59-2	cis-1,2-Dichloroethene	0.9	< 0.9	U
67-66-3	Chloroform	0.9	< 0.9	U
107-06-2	1,2-Dichloroethane	0.9	< 0.9	U
78-93-3	2-Butanone	4.6	< 4.6	U
71-55-6	1,1,1-Trichloroethane	0.9	< 0.9	U
56-23-5	Carbon Tetrachloride	0.9	< 0.9	U
108-05-4	Vinyl Acetate	4.6	< 4.6	U
75-27-4	Bromodichloromethane	0.9	< 0.9	U
78-87-5	1,2-Dichloropropane	0.9	< 0.9	U
10061-01-5	cis-1,3-Dichloropropene	0.9	< 0.9	U
79-01-6	Trichloroethene	0.9	< 0.9	U
124-48-1	Dibromochloromethane	0.9	< 0.9	U
79-00-5	1,1,2-Trichloroethane	0.9	< 0.9	U
71-43-2	Benzene	0.9	< 0.9	U
10061-02-6	trans-1,3-Dichloropropene	0.9	< 0.9	U
110-75-8	2-Chloroethylvinylether	4.6	< 4.6	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.6	< 4.6	U
591-78-6	2-Hexanone	4.6	< 4.6	U
127-18-4	Tetrachloroethene	0.9	< 0.9	U
79-34-5	1,1,2,2-Tetrachloroethane	0.9	< 0.9	U
108-88-3	Toluene	0.9	< 0.9	U
108-90-7	Chlorobenzene	0.9	< 0.9	U
100-41-4	Ethylbenzene	0.9	< 0.9	U
100-42-5	Styrene	0.9	< 0.9	U
75-69-4	Trichlorofluoromethane	0.9	< 0.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	2.6	
1330-20-7	m,p-Xylene	0.9	< 0.9	U
95-47-6	o-Xylene	0.9	< 0.9	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.5%
d8-Toluene	98.5%
Bromofluorobenzene	87.7%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP32-11-081106

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SAMPLE

Lab Sample ID: NY64G

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30267

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized:

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 7.32 g-dry-wt

Date Analyzed: 11/12/08 19:29

Purge Volume: 5.0 mL

Moisture: 9.9%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.7	< 0.7	U
74-83-9	Bromomethane	0.7	< 0.7	U
75-01-4	Vinyl Chloride	0.7	< 0.7	U
75-00-3	Chloroethane	0.7	< 0.7	U
75-09-2	Methylene Chloride	1.4	< 1.4	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.4</b>	<b>15</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.7</b>	<b>0.9</b>	
75-35-4	1,1-Dichloroethene	0.7	< 0.7	U
75-34-3	1,1-Dichloroethane	0.7	< 0.7	U
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
156-59-2	cis-1,2-Dichloroethene	0.7	< 0.7	U
67-66-3	Chloroform	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
78-93-3	2-Butanone	3.4	< 3.4	U
71-55-6	1,1,1-Trichloroethane	0.7	< 0.7	U
56-23-5	Carbon Tetrachloride	0.7	< 0.7	U
108-05-4	Vinyl Acetate	3.4	< 3.4	U
75-27-4	Bromodichloromethane	0.7	< 0.7	U
78-87-5	1,2-Dichloropropane	0.7	< 0.7	U
10061-01-5	cis-1,3-Dichloropropene	0.7	< 0.7	U
79-01-6	Trichloroethene	0.7	< 0.7	U
124-48-1	Dibromochloromethane	0.7	< 0.7	U
79-00-5	1,1,2-Trichloroethane	0.7	< 0.7	U
71-43-2	Benzene	0.7	< 0.7	U
10061-02-6	trans-1,3-Dichloropropene	0.7	< 0.7	U
110-75-8	2-Chloroethylvinylether	3.4	< 3.4	U
75-25-2	Bromoform	0.7	< 0.7	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.4	< 3.4	U
591-78-6	2-Hexanone	3.4	< 3.4	U
127-18-4	Tetrachloroethene	0.7	< 0.7	U
79-34-5	1,1,2,2-Tetrachloroethane	0.7	< 0.7	U
108-88-3	Toluene	0.7	< 0.7	U
108-90-7	Chlorobenzene	0.7	< 0.7	U
100-41-4	Ethylbenzene	0.7	< 0.7	U
100-42-5	Styrene	0.7	< 0.7	U
75-69-4	Trichlorofluoromethane	0.7	< 0.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	< 1.4	U
1330-20-7	m,p-Xylene	0.7	< 0.7	U
95-47-6	o-Xylene	0.7	< 0.7	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	99.3%
Bromofluorobenzene	99.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TH-DRUM1-SOIL

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SAMPLE

Lab Sample ID: NY64M

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30273

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized:

Date Sampled: 11/06/08

Reported: 11/14/08

Date Received: 11/06/08

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.48 g-dry-wt

Date Analyzed: 11/12/08 19:56

Purge Volume: 5.0 mL

Moisture: 13.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.9	< 0.9	U
74-83-9	Bromomethane	0.9	< 0.9	U
75-01-4	Vinyl Chloride	0.9	< 0.9	U
75-00-3	Chloroethane	0.9	< 0.9	U
75-09-2	Methylene Chloride	1.8	< 1.8	U
<b>67-64-1</b>	<b>Acetone</b>	<b>4.6</b>	<b>45</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.9</b>	<b>4.3</b>	
75-35-4	1,1-Dichloroethene	0.9	< 0.9	U
75-34-3	1,1-Dichloroethane	0.9	< 0.9	U
156-60-5	trans-1,2-Dichloroethene	0.9	< 0.9	U
156-59-2	cis-1,2-Dichloroethene	0.9	< 0.9	U
67-66-3	Chloroform	0.9	< 0.9	U
107-06-2	1,2-Dichloroethane	0.9	< 0.9	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>4.6</b>	<b>7.1</b>	
71-55-6	1,1,1-Trichloroethane	0.9	< 0.9	U
56-23-5	Carbon Tetrachloride	0.9	< 0.9	U
108-05-4	Vinyl Acetate	4.6	< 4.6	U
75-27-4	Bromodichloromethane	0.9	< 0.9	U
78-87-5	1,2-Dichloropropane	0.9	< 0.9	U
10061-01-5	cis-1,3-Dichloropropene	0.9	< 0.9	U
79-01-6	Trichloroethene	0.9	< 0.9	U
124-48-1	Dibromochloromethane	0.9	< 0.9	U
79-00-5	1,1,2-Trichloroethane	0.9	< 0.9	U
71-43-2	Benzene	0.9	< 0.9	U
10061-02-6	trans-1,3-Dichloropropene	0.9	< 0.9	U
110-75-8	2-Chloroethylvinylether	4.6	< 4.6	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.6	< 4.6	U
591-78-6	2-Hexanone	4.6	< 4.6	U
127-18-4	Tetrachloroethene	0.9	< 0.9	U
79-34-5	1,1,2,2-Tetrachloroethane	0.9	< 0.9	U
108-88-3	Toluene	0.9	< 0.9	U
108-90-7	Chlorobenzene	0.9	< 0.9	U
100-41-4	Ethylbenzene	0.9	< 0.9	U
100-42-5	Styrene	0.9	< 0.9	U
75-69-4	Trichlorofluoromethane	0.9	< 0.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	< 1.8	U
1330-20-7	m,p-Xylene	0.9	< 0.9	U
95-47-6	o-Xylene	0.9	< 0.9	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	97.8%
d8-Toluene	98.5%
Bromofluorobenzene	92.1%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-111208	Method Blank	Low	100%	101%	98.3%	NA	0
LCS-111208	Lab Control	Low	95.6%	101%	99.8%	NA	0
LCSD-111208	Lab Control Dup	Low	94.7%	99.9%	99.8%	NA	0
NY64A	TDP26-8-081106	Low	108%	100%	98.9%	NA	0
NY64B	TDP27-11-081106	Low	109%	99.7%	97.6%	NA	0
NY64C	TDP28-11-081106	Low	102%	95.1%	78.4%	NA	0
NY64CRE	TDP28-11-081106	Low	95.2%	94.9%	82.9%	NA	0
NY64D	TDP29-11-081106	Low	97.8%	95.6%	82.8%	NA	0
NY64E	TDP30-11-081106	Low	97.1%	97.3%	86.2%	NA	0
MB-111308	Method Blank	Low	90.6%	101%	97.5%	NA	0
LCS-111308	Lab Control	Low	91.6%	101%	100%	NA	0
LCSD-111308	Lab Control Dup	Low	93.5%	100%	100%	NA	0
NY64F	TDP31-12-081106	Low	111%	85.5%	84.5%	NA	0
NY64FRE	TDP31-12-081106	Low	98.5%	98.5%	87.7%	NA	0
NY64G	TDP32-11-081106	Low	102%	99.3%	99.8%	NA	0
NY64M	TH-DRUM1-SOIL	Low	97.8%	98.5%	92.1%	NA	0

SW8260B	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	75-120	76-120	72-134	69-120
(TOL) = d8-Toluene	80-122	80-120	78-124	80-120
(BFB) = Bromofluorobenzene	79-120	80-120	66-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	79-120	80-120

Log Number Range: 08-30261 to 08-30273

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111208

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-111208

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30261

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized:

Date Sampled: NA

Reported: 11/14/08

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCSD: FINN5/PAB

LCSD: 5.00 g-dry-wt

Date Analyzed LCS: 11/12/08 10:39

Purge Volume LCS: 5.0 mL

LCSD: 11/12/08 11:13

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	44.0	50.0	88.0%	47.4	50.0	94.8%	7.4%
Bromomethane	35.6	50.0	71.2%	38.5	50.0	77.0%	7.8%
Vinyl Chloride	45.4	50.0	90.8%	49.9	50.0	99.8%	9.4%
Chloroethane	42.7	50.0	85.4%	47.8	50.0	95.6%	11.3%
Methylene Chloride	45.7	50.0	91.4%	48.8	50.0	97.6%	6.6%
Acetone	202	250	80.8%	212	250	84.8%	4.8%
Carbon Disulfide	57.6	50.0	115%	63.0	50.0	126%	9.0%
1,1-Dichloroethene	50.0	50.0	100%	54.3	50.0	109%	8.2%
1,1-Dichloroethane	48.0	50.0	96.0%	52.1	50.0	104%	8.2%
trans-1,2-Dichloroethene	48.3	50.0	96.6%	52.5	50.0	105%	8.3%
cis-1,2-Dichloroethene	49.0	50.0	98.0%	53.2	50.0	106%	8.2%
Chloroform	47.2	50.0	94.4%	50.0	50.0	100%	5.8%
1,2-Dichloroethane	42.8	50.0	85.6%	44.8	50.0	89.6%	4.6%
2-Butanone	228	250	91.2%	244	250	97.6%	6.8%
1,1,1-Trichloroethane	46.5	50.0	93.0%	49.9	50.0	99.8%	7.1%
Carbon Tetrachloride	44.8	50.0	89.6%	48.4	50.0	96.8%	7.7%
Vinyl Acetate	50.5	50.0	101%	54.4	50.0	109%	7.4%
Bromodichloromethane	49.0	50.0	98.0%	52.5	50.0	105%	6.9%
1,2-Dichloropropane	46.7	50.0	93.4%	49.8	50.0	99.6%	6.4%
cis-1,3-Dichloropropene	50.2	50.0	100%	53.6	50.0	107%	6.6%
Trichloroethene	47.1	50.0	94.2%	50.2	50.0	100%	6.4%
Dibromochloromethane	53.2	50.0	106%	56.2	50.0	112%	5.5%
1,1,2-Trichloroethane	46.9	50.0	93.8%	50.3	50.0	101%	7.0%
Benzene	49.3	50.0	98.6%	52.9	50.0	106%	7.0%
trans-1,3-Dichloropropene	50.1	50.0	100%	54.3	50.0	109%	8.0%
2-Chloroethylvinylether	52.5	50.0	105%	55.0	50.0	110%	4.7%
Bromoform	51.8	50.0	104%	57.3	50.0	115%	10.1%
4-Methyl-2-Pentanone (MIBK)	221	250	88.4%	246	250	98.4%	10.7%
2-Hexanone	200	250	80.0%	228	250	91.2%	13.1%
Tetrachloroethene	47.5	50.0	95.0%	51.2	50.0	102%	7.5%
1,1,2,2-Tetrachloroethane	46.9	50.0	93.8%	50.9	50.0	102%	8.2%
Toluene	47.0	50.0	94.0%	50.2	50.0	100%	6.6%
Chlorobenzene	48.4	50.0	96.8%	52.0	50.0	104%	7.2%
Ethylbenzene	51.0	50.0	102%	55.0	50.0	110%	7.5%
Styrene	49.7	50.0	99.4%	53.8	50.0	108%	7.9%
Trichlorofluoromethane	45.4	50.0	90.8%	49.4	50.0	98.8%	8.4%
1,1,2-Trichloro-1,2,2-trifluoroetha	48.2	50.0	96.4%	52.0	50.0	104%	7.6%
m,p-Xylene	99.0	100	99.0%	107	100	107%	7.8%
o-Xylene	47.6	50.0	95.2%	51.5	50.0	103%	7.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111208

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111208

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30261

Project: BOEING THOMPSON

Matrix: Soil

023173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
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Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	95.6%	94.7%
d8-Toluene	101%	99.9%
Bromofluorobenzene	99.8%	99.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-111308

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111308

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30266

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 11/14/08

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCS D: FINN5/PAB

LCS D: 5.00 g-dry-wt

Date Analyzed LCS: 11/13/08 11:25

Purge Volume LCS: 5.0 mL

LCS D: 11/13/08 12:03

LCS D: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS D	Spike Added-LCS D	LCS D Recovery	RPD
Chloromethane	43.8	50.0	87.6%	37.8	50.0	75.6%	14.7%
Bromomethane	36.0	50.0	72.0%	30.3	50.0	60.6%	17.2%
Vinyl Chloride	47.7	50.0	95.4%	39.7	50.0	79.4%	18.3%
Chloroethane	44.4	50.0	88.8%	39.2	50.0	78.4%	12.4%
Methylene Chloride	46.7	50.0	93.4%	42.2	50.0	84.4%	10.1%
Acetone	204	250	81.6%	186	250	74.4%	9.2%
Carbon Disulfide	62.7	50.0	125%	53.2	50.0	106%	16.4%
1,1-Dichloroethene	52.3	50.0	105%	45.0	50.0	90.0%	15.0%
1,1-Dichloroethane	50.2	50.0	100%	43.6	50.0	87.2%	14.1%
trans-1,2-Dichloroethene	51.8	50.0	104%	44.6	50.0	89.2%	14.9%
cis-1,2-Dichloroethene	51.5	50.0	103%	46.1	50.0	92.2%	11.1%
Chloroform	49.0	50.0	98.0%	42.7	50.0	85.4%	13.7%
1,2-Dichloroethane	42.9	50.0	85.8%	40.7	50.0	81.4%	5.3%
2-Butanone	217	250	86.8%	221	250	88.4%	1.8%
1,1,1-Trichloroethane	49.5	50.0	99.0%	41.7	50.0	83.4%	17.1%
Carbon Tetrachloride	48.4	50.0	96.8%	40.1	50.0	80.2%	18.8%
Vinyl Acetate	48.6	50.0	97.2%	47.6	50.0	95.2%	2.1%
Bromodichloromethane	51.0	50.0	102%	45.7	50.0	91.4%	11.0%
1,2-Dichloropropane	48.4	50.0	96.8%	43.8	50.0	87.6%	10.0%
cis-1,3-Dichloropropene	52.0	50.0	104%	46.8	50.0	93.6%	10.5%
Trichloroethene	50.0	50.0	100%	43.0	50.0	86.0%	15.1%
Dibromochloromethane	53.0	50.0	106%	49.7	50.0	99.4%	6.4%
1,1,2-Trichloroethane	46.6	50.0	93.2%	45.3	50.0	90.6%	2.8%
Benzene	53.2	50.0	106%	46.7	50.0	93.4%	13.0%
trans-1,3-Dichloropropene	51.6	50.0	103%	47.6	50.0	95.2%	8.1%
2-Chloroethylvinylether	52.0	50.0	104%	49.9	50.0	99.8%	4.1%
Bromoform	52.9	50.0	106%	50.6	50.0	101%	4.4%
4-Methyl-2-Pentanone (MIBK)	214	250	85.6%	219	250	87.6%	2.3%
2-Hexanone	186	250	74.4%	192	250	76.8%	3.2%
Tetrachloroethene	53.0	50.0	106%	44.0	50.0	88.0%	18.6%
1,1,2,2-Tetrachloroethane	45.9	50.0	91.8%	44.5	50.0	89.0%	3.1%
Toluene	49.9	50.0	99.8%	43.6	50.0	87.2%	13.5%
Chlorobenzene	52.0	50.0	104%	45.3	50.0	90.6%	13.8%
Ethylbenzene	55.2	50.0	110%	46.8	50.0	93.6%	16.5%
Styrene	52.7	50.0	105%	46.7	50.0	93.4%	12.1%
Trichlorofluoromethane	47.4	50.0	94.8%	37.3	50.0	74.6%	23.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	56.4	50.0	113%	42.6	50.0	85.2%	27.9%
m,p-Xylene	105	100	105%	92.1	100	92.1%	13.1%
o-Xylene	50.7	50.0	101%	43.9	50.0	87.8%	14.4%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: LCS-111308  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-111308  
LIMS ID: 08-30266  
Matrix: Soil

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Analyte	LCS	Spike	LCS	LCS	LCS	Spike	LCS	RPD
		Added-LCS	Recovery			Added-LCS	Recovery	

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCS
d4-1,2-Dichloroethane	91.6%	93.5%
d8-Toluene	101%	100%
Bromofluorobenzene	100%	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-111208

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-111208

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30261

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized:

Date Sampled: NA

Reported: 11/14/08

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 11/12/08 11:40

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	101%
Bromofluorobenzene	98.3%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
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Sample ID: MB-111308  
METHOD BLANK

Lab Sample ID: MB-111308  
LIMS ID: 08-30266  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/14/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: FINN5/PAB  
Date Analyzed: 11/13/08 12:29

Sample Amount: 5.00 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	90.6%
d8-Toluene	101%
Bromofluorobenzene	97.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP26-GW-081106

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**SAMPLE**

Lab Sample ID: NY64H

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30268

Project: BOEING THOMPSON

Matrix: Water

023173

Data Release Authorized: *MW*

Date Sampled: 11/06/08

Reported: 11/12/08

Date Received: 11/06/08

Instrument/Analyst: NT3/JZ

Sample Amount: 5.00 mL

Date Analyzed: 11/10/08 14:39

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
<b>75-01-4</b>	<b>Vinyl Chloride</b>	<b>1.0</b>	<b>140</b>	
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
<b>75-35-4</b>	<b>1,1-Dichloroethene</b>	<b>1.0</b>	<b>1.0</b>	
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>1.0</b>	<b>4.0</b>	
<b>156-60-5</b>	<b>trans-1,2-Dichloroethene</b>	<b>1.0</b>	<b>7.6</b>	
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>1.0</b>	<b>480</b>	<b>E</b>
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
<b>71-55-6</b>	<b>1,1,1-Trichloroethane</b>	<b>1.0</b>	<b>1.2</b>	
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>1.0</b>	<b>240</b>	<b>E</b>
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
<b>127-18-4</b>	<b>Tetrachloroethene</b>	<b>1.0</b>	<b>1.9</b>	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	2.0	< 2.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	105%
d8-Toluene	92.3%
Bromofluorobenzene	92.7%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP26-GW-081106  
DILUTION

Lab Sample ID: NY64H  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized: *MMW*  
Reported: 11/12/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Instrument/Analyst: NT3/JZ  
Date Analyzed: 11/10/08 17:00

Sample Amount: 0.500 mL  
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	10	< 10	U
74-83-9	Bromomethane	10	< 10	U
<b>75-01-4</b>	<b>Vinyl Chloride</b>	<b>10</b>	<b>140</b>	
75-00-3	Chloroethane	10	< 10	U
75-09-2	Methylene Chloride	20	< 20	U
67-64-1	Acetone	50	< 50	U
75-15-0	Carbon Disulfide	10	< 10	U
75-35-4	1,1-Dichloroethene	10	< 10	U
75-34-3	1,1-Dichloroethane	10	< 10	U
156-60-5	trans-1,2-Dichloroethene	10	< 10	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>10</b>	<b>460</b>	
67-66-3	Chloroform	10	< 10	U
107-06-2	1,2-Dichloroethane	10	< 10	U
78-93-3	2-Butanone	50	< 50	U
71-55-6	1,1,1-Trichloroethane	10	< 10	U
56-23-5	Carbon Tetrachloride	10	< 10	U
108-05-4	Vinyl Acetate	50	< 50	U
75-27-4	Bromodichloromethane	10	< 10	U
78-87-5	1,2-Dichloropropane	10	< 10	U
10061-01-5	cis-1,3-Dichloropropene	10	< 10	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>10</b>	<b>240</b>	
124-48-1	Dibromochloromethane	10	< 10	U
79-00-5	1,1,2-Trichloroethane	10	< 10	U
71-43-2	Benzene	10	< 10	U
10061-02-6	trans-1,3-Dichloropropene	10	< 10	U
110-75-8	2-Chloroethylvinylether	50	< 50	U
75-25-2	Bromoform	10	< 10	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	50	< 50	U
591-78-6	2-Hexanone	50	< 50	U
127-18-4	Tetrachloroethene	10	< 10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	< 10	U
108-88-3	Toluene	10	< 10	U
108-90-7	Chlorobenzene	10	< 10	U
100-41-4	Ethylbenzene	10	< 10	U
100-42-5	Styrene	10	< 10	U
75-69-4	Trichlorofluoromethane	10	< 10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	20	< 20	U
1330-20-7	m,p-Xylene	20	< 20	U
95-47-6	o-Xylene	10	< 10	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	104%
d8-Toluene	95.3%
Bromofluorobenzene	92.1%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP28-GW-081106

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**SAMPLE**

Lab Sample ID: NY64I

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30269

Project: BOEING THOMPSON

Matrix: Water

023173

Data Release Authorized: *MMW*

Date Sampled: 11/06/08

Reported: 11/12/08

Date Received: 11/06/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/10/08 20:37

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>0.2</b>	<b>1.0</b>	
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	130%
d8-Toluene	99.5%
Bromofluorobenzene	89.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TDP29-GW-081106  
SAMPLE

Lab Sample ID: NY64J  
LIMS ID: 08-30270  
Matrix: Water  
Data Release Authorized: *MW*  
Reported: 11/12/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Instrument/Analyst: NT5/JZ  
Date Analyzed: 11/10/08 19:15

Sample Amount: 20.0 mL  
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	0.4	
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	133%
d8-Toluene	98.2%
Bromofluorobenzene	87.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TDP31-GW-081106

Page 1 of 1

**SAMPLE**

Lab Sample ID: NY64K

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30271

Project: BOEING THOMPSON

Matrix: Water

023173

Data Release Authorized: *MW*

Date Sampled: 11/06/08

Reported: 11/12/08

Date Received: 11/06/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/10/08 19:43

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.2</b>	<b>0.4</b>	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>0.2</b>	<b>0.3</b>	
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
<b>76-13-1</b>	<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.2</b>	<b>0.4</b>	
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	134%
d8-Toluene	92.8%
Bromofluorobenzene	86.2%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TH-SUMP-081106  
SAMPLE



Lab Sample ID: NY64L

LIMS ID: 08-30272

Matrix: Water

Data Release Authorized: *WV*

Reported: 11/12/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Instrument/Analyst: NT3/JZ

Date Analyzed: 11/10/08 16:36

Sample Amount: 0.500 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	10	< 10	U
74-83-9	Bromomethane	10	< 10	U
75-01-4	Vinyl Chloride	10	< 10	U
75-00-3	Chloroethane	10	< 10	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>20</b>	<b>42</b>	
67-64-1	Acetone	50	< 50	U
75-15-0	Carbon Disulfide	10	< 10	U
75-35-4	1,1-Dichloroethene	10	< 10	U
75-34-3	1,1-Dichloroethane	10	< 10	U
156-60-5	trans-1,2-Dichloroethene	10	< 10	U
156-59-2	cis-1,2-Dichloroethene	10	< 10	U
67-66-3	Chloroform	10	< 10	U
107-06-2	1,2-Dichloroethane	10	< 10	U
78-93-3	2-Butanone	50	< 50	U
71-55-6	1,1,1-Trichloroethane	10	< 10	U
56-23-5	Carbon Tetrachloride	10	< 10	U
108-05-4	Vinyl Acetate	50	< 50	U
75-27-4	Bromodichloromethane	10	< 10	U
78-87-5	1,2-Dichloropropane	10	< 10	U
10061-01-5	cis-1,3-Dichloropropene	10	< 10	U
79-01-6	Trichloroethene	10	< 10	U
124-48-1	Dibromochloromethane	10	< 10	U
79-00-5	1,1,2-Trichloroethane	10	< 10	U
71-43-2	Benzene	10	< 10	U
10061-02-6	trans-1,3-Dichloropropene	10	< 10	U
110-75-8	2-Chloroethylvinylether	50	< 50	U
75-25-2	Bromoform	10	< 10	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	50	< 50	U
591-78-6	2-Hexanone	50	< 50	U
127-18-4	Tetrachloroethene	10	< 10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	< 10	U
<b>108-88-3</b>	<b>Toluene</b>	<b>10</b>	<b>29</b>	
108-90-7	Chlorobenzene	10	< 10	U
100-41-4	Ethylbenzene	10	< 10	U
<b>100-42-5</b>	<b>Styrene</b>	<b>10</b>	<b>11</b>	
75-69-4	Trichlorofluoromethane	10	< 10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	20	< 20	U
1330-20-7	m,p-Xylene	20	< 20	U
95-47-6	o-Xylene	10	< 10	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	103%
d8-Toluene	97.4%
Bromofluorobenzene	95.3%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TH-DRUM2-WATER  
SAMPLE

Lab Sample ID: NY64N

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30274

Project: BOEING THOMPSON

Matrix: Water

023173

Data Release Authorized: *mm*

Date Sampled: 11/06/08

Reported: 11/12/08

Date Received: 11/06/08

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/10/08 20:10

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>0.5</b>	<b>0.6</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>3.0</b>	<b>40</b>	
<b>75-15-0</b>	<b>Carbon Disulfide</b>	<b>0.2</b>	<b>0.6</b>	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
<b>67-66-3</b>	<b>Chloroform</b>	<b>0.2</b>	<b>2.3</b>	
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
<b>79-01-6</b>	<b>Trichloroethene</b>	<b>0.2</b>	<b>0.3</b>	
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
<b>108-88-3</b>	<b>Toluene</b>	<b>0.2</b>	<b>0.2</b>	
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	138%
d8-Toluene	98.5%
Bromofluorobenzene	85.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 1

Sample ID: TRIP BLANKS  
SAMPLE

Lab Sample ID: XXXO  
LIMS ID: 08-30275  
Matrix: Water  
Data Release Authorized: *mw*  
Reported: 11/12/08

QC Report No: XXX-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Instrument/Analyst: NT5/JZ  
Date Analyzed: 11/10/08 18:21

Sample Amount: 20.0 mL  
Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	127%
d8-Toluene	102%
Bromofluorobenzene	87.2%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-111008	Method Blank	5	103%	97.6%	94.1%	NA	0
LCS-111008	Lab Control	5	98.4%	98.3%	96.3%	NA	0
LCSD-111008	Lab Control Dup	5	97.2%	98.2%	97.2%	NA	0
NY64H	TDP26-GW-081106	5	105%	92.3%	92.7%	NA	0
NY64HDL	TDP26-GW-081106	5	104%	95.3%	92.1%	NA	0
NY64L	TH-SUMP-081106	5	103%	97.4%	95.3%	NA	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

79-120  
 80-120  
 80-120  
 80-120

80-120  
 80-120  
 72-120  
 80-124

Prep Method: SW5030B  
 Log Number Range: 08-30268 to 08-30274

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-111008	Method Blank	20	118%	102%	91.8%	NA	0
LCS-111008	Lab Control	20	111%	99.8%	98.0%	NA	0
LCSD-111008	Lab Control Dup	20	113%	99.5%	100%	NA	0
NY64I	TDP28-GW-081106	20	130%	99.5%	89.5%	NA	0
NY64J	TDP29-GW-081106	20	133%	98.2%	87.2%	NA	0
NY64K	TDP31-GW-081106	20	134%	92.8%	86.2%	NA	0
NY64N	TH-DRUM2-WATER	20	138%	98.5%	85.2%	NA	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

70-131  
 80-120  
 74-121  
 80-120

64-146  
 78-125  
 71-120  
 80-121

Prep Method: SW5030B  
 Log Number Range: 08-30268 to 08-30274

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: XXX-The Boeing Company  
Project: BOEING THOMPSON  
023173

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
XXXO	TRIP BLANKS	20	127%	102%	87.2%	NA	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
(TOL) = d8-Toluene  
(BFB) = Bromofluorobenzene  
(DCB) = d4-1,2-Dichlorobenzene

70-131  
80-120  
74-121  
80-120

64-146  
78-125  
71-120  
80-121

Prep Method: SW5030B  
Log Number Range: 08-30275 to 08-30275

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: LCS-111008  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-111008  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized: *MW*  
Reported: 11/12/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst LCS: NT3/JZ  
LCSD: NT3/JZ  
Date Analyzed LCS: 11/10/08 11:24  
LCSD: 11/10/08 11:54

Sample Amount LCS: 5.00 mL  
LCSD: 5.00 mL  
Purge Volume LCS: 5.0 mL  
LCSD: 5.0 mL

Analyte	Spike		LCS		LCSD		RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	
Chloromethane	48.4	50.0	96.8%	44.3	50.0	88.6%	8.8%
Bromomethane	48.3	50.0	96.6%	46.4	50.0	92.8%	4.0%
Vinyl Chloride	50.5	50.0	101%	45.8	50.0	91.6%	9.8%
Chloroethane	69.0	50.0	138%	63.7	50.0	127%	8.0%
Methylene Chloride	38.4	50.0	76.8%	38.1	50.0	76.2%	0.8%
Acetone	255	250	102%	258	250	103%	1.2%
Carbon Disulfide	40.7	50.0	81.4%	41.1	50.0	82.2%	1.0%
1,1-Dichloroethene	39.0	50.0	78.0%	39.6	50.0	79.2%	1.5%
1,1-Dichloroethane	48.3	50.0	96.6%	45.4	50.0	90.8%	6.2%
trans-1,2-Dichloroethene	45.5	50.0	91.0%	43.9	50.0	87.8%	3.6%
cis-1,2-Dichloroethene	49.8	50.0	99.6%	47.8	50.0	95.6%	4.1%
Chloroform	46.8	50.0	93.6%	44.3	50.0	88.6%	5.5%
1,2-Dichloroethane	46.0	50.0	92.0%	44.5	50.0	89.0%	3.3%
2-Butanone	291	250	116%	279	250	112%	4.2%
1,1,1-Trichloroethane	49.7	50.0	99.4%	46.2	50.0	92.4%	7.3%
Carbon Tetrachloride	50.2	50.0	100%	46.9	50.0	93.8%	6.8%
Vinyl Acetate	44.4	50.0	88.8%	43.5	50.0	87.0%	2.0%
Bromodichloromethane	44.7	50.0	89.4%	42.8	50.0	85.6%	4.3%
1,2-Dichloropropane	46.4	50.0	92.8%	44.6	50.0	89.2%	4.0%
cis-1,3-Dichloropropene	50.0	50.0	100%	48.2	50.0	96.4%	3.7%
Trichloroethene	48.6	50.0	97.2%	46.6	50.0	93.2%	4.2%
Dibromochloromethane	45.0	50.0	90.0%	43.4	50.0	86.8%	3.6%
1,1,2-Trichloroethane	46.3	50.0	92.6%	45.2	50.0	90.4%	2.4%
Benzene	49.7	50.0	99.4%	47.5	50.0	95.0%	4.5%
trans-1,3-Dichloropropene	48.3	50.0	96.6%	46.9	50.0	93.8%	2.9%
2-Chloroethylvinylether	43.3	50.0	86.6%	43.2	50.0	86.4%	0.2%
Bromoform	42.2	50.0	84.4%	41.6	50.0	83.2%	1.4%
4-Methyl-2-Pentanone (MIBK)	234	250	93.6%	230	250	92.0%	1.7%
2-Hexanone	232	250	92.8%	229	250	91.6%	1.3%
Tetrachloroethene	47.9	50.0	95.8%	45.1	50.0	90.2%	6.0%
1,1,2,2-Tetrachloroethane	44.6	50.0	89.2%	44.4	50.0	88.8%	0.4%
Toluene	46.8	50.0	93.6%	44.1	50.0	88.2%	5.9%
Chlorobenzene	47.9	50.0	95.8%	45.9	50.0	91.8%	4.3%
Ethylbenzene	46.4	50.0	92.8%	44.7	50.0	89.4%	3.7%
Styrene	44.0	50.0	88.0%	42.0	50.0	84.0%	4.7%
Trichlorofluoromethane	64.0	50.0	128%	56.0	50.0	112%	13.3%
1,1,2-Trichloro-1,2,2-trifluoroetha	43.2	50.0	86.4%	45.1	50.0	90.2%	4.3%
m,p-Xylene	98.9	100	98.9%	92.8	100	92.8%	6.4%
o-Xylene	50.4	50.0	101%	48.1	50.0	96.2%	4.7%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

LCS LCSD

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: LCS-111008  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-111008  
LIMS ID: 08-30268  
Matrix: Water

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery		Added-LCSD	Recovery			
d4-1,2-Dichloroethane			98.4%	97.2%					
d8-Toluene			98.3%	98.2%					
Bromofluorobenzene			96.3%	97.2%					

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 1 of 2



Sample ID: LCS-111008

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111008

LIMS ID: 08-30269

Matrix: Water

Data Release Authorized: *MMW*

Reported: 11/12/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT5/JZ

LCS: NT5/JZ

Date Analyzed LCS: 11/10/08 12:58

LCS: 11/10/08 13:49

Sample Amount LCS: 20.0 mL

LCS: 20.0 mL

Purge Volume LCS: 20.0 mL

LCS: 20.0 mL

Analyte	Spike		LCS		Spike		LCS		RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCS	Recovery	LCS		
Chloromethane	4.0	4.0	100%	4.2	4.0	105%	4.9%		
Bromomethane	4.6	4.0	115%	4.9	4.0	122%	6.3%		
Vinyl Chloride	4.0	4.0	100%	4.1	4.0	102%	2.5%		
Chloroethane	4.2	4.0	105%	4.5	4.0	112%	6.9%		
Methylene Chloride	3.6	4.0	90.0%	3.9	4.0	97.5%	8.0%		
Acetone	20.6	20.0	103%	20.2	20.0	101%	2.0%		
Carbon Disulfide	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%		
1,1-Dichloroethene	3.9	4.0	97.5%	4.1	4.0	102%	5.0%		
1,1-Dichloroethane	4.0	4.0	100%	4.1	4.0	102%	2.5%		
trans-1,2-Dichloroethene	3.9	4.0	97.5%	4.0	4.0	100%	2.5%		
cis-1,2-Dichloroethene	3.8	4.0	95.0%	4.0	4.0	100%	5.1%		
Chloroform	3.9	4.0	97.5%	4.1	4.0	102%	5.0%		
1,2-Dichloroethane	3.6	4.0	90.0%	3.8	4.0	95.0%	5.4%		
2-Butanone	19.6	20.0	98.0%	20.3	20.0	102%	3.5%		
1,1,1-Trichloroethane	3.8	4.0	95.0%	4.0	4.0	100%	5.1%		
Carbon Tetrachloride	3.6	4.0	90.0%	3.7	4.0	92.5%	2.7%		
Vinyl Acetate	3.4	4.0	85.0%	3.3	4.0	82.5%	3.0%		
Bromodichloromethane	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%		
1,2-Dichloropropane	3.6	4.0	90.0%	3.8	4.0	95.0%	5.4%		
cis-1,3-Dichloropropene	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%		
Trichloroethene	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%		
Dibromochloromethane	3.5	4.0	87.5%	3.6	4.0	90.0%	2.8%		
1,1,2-Trichloroethane	3.6	4.0	90.0%	3.8	4.0	95.0%	5.4%		
Benzene	3.7	4.0	92.5%	3.9	4.0	97.5%	5.3%		
trans-1,3-Dichloropropene	3.9	4.0	97.5%	4.0	4.0	100%	2.5%		
2-Chloroethylvinylether	3.6	4.0	90.0%	3.5	4.0	87.5%	2.8%		
Bromoform	3.8	4.0	95.0%	3.9	4.0	97.5%	2.6%		
4-Methyl-2-Pentanone (MIBK)	20.2	20.0	101%	19.9	20.0	99.5%	1.5%		
2-Hexanone	19.5	20.0	97.5%	18.9	20.0	94.5%	3.1%		
Tetrachloroethene	3.4	4.0	85.0%	3.5	4.0	87.5%	2.9%		
1,1,2,2-Tetrachloroethane	3.9	4.0	97.5%	3.9	4.0	97.5%	0.0%		
Toluene	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%		
Chlorobenzene	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%		
Ethylbenzene	3.7	4.0	92.5%	3.8	4.0	95.0%	2.7%		
Styrene	3.8	4.0	95.0%	4.0	4.0	100%	5.1%		
Trichlorofluoromethane	3.7	4.0	92.5%	3.9	4.0	97.5%	5.3%		
1,1,2-Trichloro-1,2,2-trifluoroethane	3.8	4.0	95.0%	3.8	4.0	95.0%	0.0%		
m,p-Xylene	7.7	8.0	96.2%	7.9	8.0	98.8%	2.6%		
o-Xylene	3.6	4.0	90.0%	3.8	4.0	95.0%	5.4%		

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

LCS LCS



## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Page 1 of 1

Sample ID: MB-111008

METHOD BLANK



Lab Sample ID: MB-111008

LIMS ID: 08-30268

Matrix: Water

Data Release Authorized: *mmw*

Reported: 11/12/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT3/JZ

Date Analyzed: 11/10/08 12:19

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	2.0	< 2.0	U
95-47-6	o-Xylene	1.0	< 1.0	U

Reported in  $\mu\text{g/L}$  (ppb)

## Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	97.6%
Bromofluorobenzene	94.1%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-111008

Page 1 of 1

METHOD BLANK

Lab Sample ID: MB-111008

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30269

Project: BOEING THOMPSON

Matrix: Water

023173

Data Release Authorized: *TWW*

Date Sampled: NA

Reported: 11/12/08

Date Received: NA

Instrument/Analyst: NT5/JZ

Sample Amount: 20.0 mL

Date Analyzed: 11/10/08 14:16

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	118%
d8-Toluene	102%
Bromofluorobenzene	91.8%

Sample ID: TDP26-8-081106  
SAMPLE

Lab Sample ID: NY64A  
LIMS ID: 08-30261  
Matrix: Soil  
Data Release Authorized: *WVW*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 15:01  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.48 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 17.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	< 59 U
111-44-4	Bis-(2-Chloroethyl) Ether	59	< 59 U
95-57-8	2-Chlorophenol	59	< 59 U
541-73-1	1,3-Dichlorobenzene	59	< 59 U
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	Benzyl Alcohol	59	< 59 U
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	2-Methylphenol	59	< 59 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	59	< 59 U
106-44-5	4-Methylphenol	59	< 59 U
621-64-7	N-Nitroso-Di-N-Propylamine	300	< 300 U
67-72-1	Hexachloroethane	59	< 59 U
98-95-3	Nitrobenzene	59	< 59 U
78-59-1	Isophorone	59	< 59 U
88-75-5	2-Nitrophenol	59	< 59 U
105-67-9	2,4-Dimethylphenol	59	< 59 U
65-85-0	Benzoic Acid	590	< 590 U
111-91-1	bis(2-Chloroethoxy) Methane	59	< 59 U
120-83-2	2,4-Dichlorophenol	300	< 300 U
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	Naphthalene	59	< 59 U
106-47-8	4-Chloroaniline	300	< 300 U
87-68-3	Hexachlorobutadiene	59	< 59 U
59-50-7	4-Chloro-3-methylphenol	300	< 300 U
91-57-6	2-Methylnaphthalene	59	< 59 U
77-47-4	Hexachlorocyclopentadiene	300	< 300 U
88-06-2	2,4,6-Trichlorophenol	300	< 300 U
95-95-4	2,4,5-Trichlorophenol	300	< 300 U
91-58-7	2-Chloronaphthalene	59	< 59 U
88-74-4	2-Nitroaniline	300	< 300 U
131-11-3	Dimethylphthalate	59	< 59 U
208-96-8	Acenaphthylene	59	< 59 U
99-09-2	3-Nitroaniline	300	< 300 U
83-32-9	Acenaphthene	59	< 59 U
51-28-5	2,4-Dinitrophenol	590	< 590 U
100-02-7	4-Nitrophenol	300	< 300 U
132-64-9	Dibenzofuran	59	< 59 U
606-20-2	2,6-Dinitrotoluene	300	< 300 U
121-14-2	2,4-Dinitrotoluene	300	< 300 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP26-8-081106  
SAMPLE

Lab Sample ID: NY64A  
LIMS ID: 08-30261  
Matrix: Soil  
Date Analyzed: 11/14/08 15:01

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	59	< 59 U
7005-72-3	4-Chlorophenyl-phenylether	59	< 59 U
86-73-7	Fluorene	59	< 59 U
100-01-6	4-Nitroaniline	300	< 300 U
534-52-1	4,6-Dinitro-2-Methylphenol	590	< 590 U
86-30-6	N-Nitrosodiphenylamine	59	< 59 U
101-55-3	4-Bromophenyl-phenylether	59	< 59 U
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	Phenanthrene	59	< 59 U
86-74-8	Carbazole	59	< 59 U
120-12-7	Anthracene	59	< 59 U
84-74-2	Di-n-Butylphthalate	59	< 59 U
206-44-0	Fluoranthene	59	< 59 U
129-00-0	Pyrene	59	< 59 U
85-68-7	Butylbenzylphthalate	59	< 59 U
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	Benzo(a)anthracene	59	< 59 U
117-81-7	bis(2-Ethylhexyl)phthalate	59	< 59 U
218-01-9	Chrysene	59	< 59 U
117-84-0	Di-n-Octyl phthalate	59	< 59 U
205-99-2	Benzo(b)fluoranthene	59	< 59 U
207-08-9	Benzo(k)fluoranthene	59	< 59 U
50-32-8	Benzo(a)pyrene	59	< 59 U
193-39-5	Indeno(1,2,3-cd)pyrene	59	< 59 U
53-70-3	Dibenz(a,h)anthracene	59	< 59 U
191-24-2	Benzo(g,h,i)perylene	59	< 59 U
90-12-0	1-Methylnaphthalene	59	< 59 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.4%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	74.4%	d4-1,2-Dichlorobenzene	68.8%
d5-Phenol	69.6%	2-Fluorophenol	72.5%
2,4,6-Tribromophenol	73.3%	d4-2-Chlorophenol	71.5%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP28-11-081106  
SAMPLE

Lab Sample ID: NY64C  
LIMS ID: 08-30263  
Matrix: Soil  
Data Release Authorized: *SMW*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 15:34  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.18 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 22.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	61	< 61 U
111-44-4	Bis-(2-Chloroethyl) Ether	61	< 61 U
95-57-8	2-Chlorophenol	61	< 61 U
541-73-1	1,3-Dichlorobenzene	61	< 61 U
106-46-7	1,4-Dichlorobenzene	61	< 61 U
100-51-6	Benzyl Alcohol	61	< 61 U
95-50-1	1,2-Dichlorobenzene	61	< 61 U
95-48-7	2-Methylphenol	61	< 61 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	61	< 61 U
106-44-5	4-Methylphenol	61	< 61 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	61	< 61 U
98-95-3	Nitrobenzene	61	< 61 U
78-59-1	Isophorone	61	< 61 U
88-75-5	2-Nitrophenol	61	< 61 U
105-67-9	2,4-Dimethylphenol	61	< 61 U
65-85-0	Benzoic Acid	610	< 610 U
111-91-1	bis(2-Chloroethoxy) Methane	61	< 61 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	61	< 61 U
91-20-3	Naphthalene	61	< 61 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	61	< 61 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	61	< 61 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	61	< 61 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	61	< 61 U
208-96-8	Acenaphthylene	61	< 61 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	61	< 61 U
51-28-5	2,4-Dinitrophenol	610	< 610 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	61	< 61 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

Lab Sample ID: NY64C  
 LIMS ID: 08-30263  
 Matrix: Soil  
 Date Analyzed: 11/14/08 15:34

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	61	< 61 U
7005-72-3	4-Chlorophenyl-phenylether	61	< 61 U
86-73-7	Fluorene	61	< 61 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	610	< 610 U
86-30-6	N-Nitrosodiphenylamine	61	< 61 U
101-55-3	4-Bromophenyl-phenylether	61	< 61 U
118-74-1	Hexachlorobenzene	61	< 61 U
87-86-5	Pentachlorophenol	310	< 310 U
85-01-8	Phenanthrene	61	< 61 U
86-74-8	Carbazole	61	< 61 U
120-12-7	Anthracene	61	< 61 U
84-74-2	Di-n-Butylphthalate	61	< 61 U
206-44-0	Fluoranthene	61	< 61 U
129-00-0	Pyrene	61	< 61 U
85-68-7	Butylbenzylphthalate	61	< 61 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo (a) anthracene	61	< 61 U
117-81-7	bis(2-Ethylhexyl)phthalate	61	< 61 U
218-01-9	Chrysene	61	< 61 U
117-84-0	Di-n-Octyl phthalate	61	< 61 U
205-99-2	Benzo (b) fluoranthene	61	< 61 U
207-08-9	Benzo (k) fluoranthene	61	< 61 U
50-32-8	Benzo (a) pyrene	61	< 61 U
193-39-5	Indeno (1,2,3-cd) pyrene	61	< 61 U
53-70-3	Dibenz (a,h) anthracene	61	< 61 U
191-24-2	Benzo (g,h,i) perylene	61	< 61 U
90-12-0	1-Methylnaphthalene	61	< 61 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	58.4%	2-Fluorobiphenyl	61.6%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	61.6%
d5-Phenol	63.5%	2-Fluorophenol	65.3%
2,4,6-Tribromophenol	65.9%	d4-2-Chlorophenol	62.4%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP29-11-081106  
SAMPLE

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 16:08  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.29 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 17.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	60	< 60 U
111-44-4	Bis-(2-Chloroethyl) Ether	60	< 60 U
95-57-8	2-Chlorophenol	60	< 60 U
541-73-1	1,3-Dichlorobenzene	60	< 60 U
106-46-7	1,4-Dichlorobenzene	60	< 60 U
100-51-6	Benzyl Alcohol	60	< 60 U
95-50-1	1,2-Dichlorobenzene	60	< 60 U
95-48-7	2-Methylphenol	60	< 60 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	60	< 60 U
106-44-5	4-Methylphenol	60	< 60 U
621-64-7	N-Nitroso-Di-N-Propylamine	300	< 300 U
67-72-1	Hexachloroethane	60	< 60 U
98-95-3	Nitrobenzene	60	< 60 U
78-59-1	Isophorone	60	< 60 U
88-75-5	2-Nitrophenol	60	< 60 U
105-67-9	2,4-Dimethylphenol	60	< 60 U
65-85-0	Benzoic Acid	600	< 600 U
111-91-1	bis(2-Chloroethoxy) Methane	60	< 60 U
120-83-2	2,4-Dichlorophenol	300	< 300 U
120-82-1	1,2,4-Trichlorobenzene	60	< 60 U
91-20-3	Naphthalene	60	< 60 U
106-47-8	4-Chloroaniline	300	< 300 U
87-68-3	Hexachlorobutadiene	60	< 60 U
59-50-7	4-Chloro-3-methylphenol	300	< 300 U
91-57-6	2-Methylnaphthalene	60	< 60 U
77-47-4	Hexachlorocyclopentadiene	300	< 300 U
88-06-2	2,4,6-Trichlorophenol	300	< 300 U
95-95-4	2,4,5-Trichlorophenol	300	< 300 U
91-58-7	2-Chloronaphthalene	60	< 60 U
88-74-4	2-Nitroaniline	300	< 300 U
131-11-3	Dimethylphthalate	60	< 60 U
208-96-8	Acenaphthylene	60	< 60 U
99-09-2	3-Nitroaniline	300	< 300 U
83-32-9	Acenaphthene	60	< 60 U
51-28-5	2,4-Dinitrophenol	600	< 600 U
100-02-7	4-Nitrophenol	300	< 300 U
132-64-9	Dibenzofuran	60	< 60 U
606-20-2	2,6-Dinitrotoluene	300	< 300 U
121-14-2	2,4-Dinitrotoluene	300	< 300 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
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Sample ID: TDP29-11-081106  
SAMPLE

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Date Analyzed: 11/14/08 16:08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	60	< 60 U
7005-72-3	4-Chlorophenyl-phenylether	60	< 60 U
86-73-7	Fluorene	60	< 60 U
100-01-6	4-Nitroaniline	300	< 300 U
534-52-1	4,6-Dinitro-2-Methylphenol	600	< 600 U
86-30-6	N-Nitrosodiphenylamine	60	< 60 U
101-55-3	4-Bromophenyl-phenylether	60	< 60 U
118-74-1	Hexachlorobenzene	60	< 60 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	Phenanthrene	60	< 60 U
86-74-8	Carbazole	60	< 60 U
120-12-7	Anthracene	60	< 60 U
84-74-2	Di-n-Butylphthalate	60	< 60 U
206-44-0	Fluoranthene	60	< 60 U
129-00-0	Pyrene	60	< 60 U
85-68-7	Butylbenzylphthalate	60	< 60 U
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	Benzo (a) anthracene	60	< 60 U
117-81-7	bis (2-Ethylhexyl) phthalate	60	< 60 U
218-01-9	Chrysene	60	< 60 U
117-84-0	Di-n-Octyl phthalate	60	< 60 U
205-99-2	Benzo (b) fluoranthene	60	< 60 U
207-08-9	Benzo (k) fluoranthene	60	< 60 U
50-32-8	Benzo (a) pyrene	60	< 60 U
193-39-5	Indeno (1,2,3-cd) pyrene	60	< 60 U
53-70-3	Dibenz (a,h) anthracene	60	< 60 U
191-24-2	Benzo (g,h,i) perylene	60	< 60 U
90-12-0	1-Methylnaphthalene	60	< 60 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	59.6%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	76.0%	d4-1,2-Dichlorobenzene	55.6%
d5-Phenol	66.7%	2-Fluorophenol	62.4%
2,4,6-Tribromophenol	72.5%	d4-2-Chlorophenol	64.8%

Sample ID: TDP31-12-081106  
SAMPLE

Lab Sample ID: NY64F  
LIMS ID: 08-30266  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 17:50  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.86 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 22.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	64	< 64 U
111-44-4	Bis-(2-Chloroethyl) Ether	64	< 64 U
95-57-8	2-Chlorophenol	64	< 64 U
541-73-1	1,3-Dichlorobenzene	64	< 64 U
106-46-7	1,4-Dichlorobenzene	64	< 64 U
100-51-6	Benzyl Alcohol	64	< 64 U
95-50-1	1,2-Dichlorobenzene	64	< 64 U
95-48-7	2-Methylphenol	64	< 64 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	64	< 64 U
106-44-5	4-Methylphenol	64	< 64 U
621-64-7	N-Nitroso-Di-N-Propylamine	320	< 320 U
67-72-1	Hexachloroethane	64	< 64 U
98-95-3	Nitrobenzene	64	< 64 U
78-59-1	Isophorone	64	< 64 U
88-75-5	2-Nitrophenol	64	< 64 U
105-67-9	2,4-Dimethylphenol	64	< 64 U
65-85-0	Benzoic Acid	640	< 640 U
111-91-1	bis(2-Chloroethoxy) Methane	64	< 64 U
120-83-2	2,4-Dichlorophenol	320	< 320 U
120-82-1	1,2,4-Trichlorobenzene	64	< 64 U
91-20-3	Naphthalene	64	< 64 U
106-47-8	4-Chloroaniline	320	< 320 U
87-68-3	Hexachlorobutadiene	64	< 64 U
59-50-7	4-Chloro-3-methylphenol	320	< 320 U
91-57-6	2-Methylnaphthalene	64	< 64 U
77-47-4	Hexachlorocyclopentadiene	320	< 320 U
88-06-2	2,4,6-Trichlorophenol	320	< 320 U
95-95-4	2,4,5-Trichlorophenol	320	< 320 U
91-58-7	2-Chloronaphthalene	64	< 64 U
88-74-4	2-Nitroaniline	320	< 320 U
131-11-3	Dimethylphthalate	64	< 64 U
208-96-8	Acenaphthylene	64	< 64 U
99-09-2	3-Nitroaniline	320	< 320 U
83-32-9	Acenaphthene	64	< 64 U
51-28-5	2,4-Dinitrophenol	640	< 640 U
100-02-7	4-Nitrophenol	320	< 320 U
132-64-9	Dibenzofuran	64	< 64 U
606-20-2	2,6-Dinitrotoluene	320	< 320 U
121-14-2	2,4-Dinitrotoluene	320	< 320 U

Lab Sample ID: NY64F  
 LIMS ID: 08-30266  
 Matrix: Soil  
 Date Analyzed: 11/14/08 17:50

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	64	< 64 U
7005-72-3	4-Chlorophenyl-phenylether	64	< 64 U
86-73-7	Fluorene	64	< 64 U
100-01-6	4-Nitroaniline	320	< 320 U
534-52-1	4,6-Dinitro-2-Methylphenol	640	< 640 U
86-30-6	N-Nitrosodiphenylamine	64	< 64 U
101-55-3	4-Bromophenyl-phenylether	64	< 64 U
118-74-1	Hexachlorobenzene	64	< 64 U
87-86-5	Pentachlorophenol	320	< 320 U
85-01-8	Phenanthrene	64	< 64 U
86-74-8	Carbazole	64	< 64 U
120-12-7	Anthracene	64	< 64 U
84-74-2	Di-n-Butylphthalate	64	< 64 U
206-44-0	Fluoranthene	64	< 64 U
129-00-0	Pyrene	64	< 64 U
85-68-7	Butylbenzylphthalate	64	< 64 U
91-94-1	3,3'-Dichlorobenzidine	320	< 320 U
56-55-3	Benzo(a)anthracene	64	< 64 U
117-81-7	bis(2-Ethylhexyl)phthalate	64	< 64 U
218-01-9	Chrysene	64	< 64 U
117-84-0	Di-n-Octyl phthalate	64	< 64 U
205-99-2	Benzo(b)fluoranthene	64	< 64 U
207-08-9	Benzo(k)fluoranthene	64	< 64 U
50-32-8	Benzo(a)pyrene	64	< 64 U
193-39-5	Indeno(1,2,3-cd)pyrene	64	< 64 U
53-70-3	Dibenz(a,h)anthracene	64	< 64 U
191-24-2	Benzo(g,h,i)perylene	64	< 64 U
90-12-0	1-Methylnaphthalene	64	< 64 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	61.2%	2-Fluorobiphenyl	69.2%
d14-p-Terphenyl	78.8%	d4-1,2-Dichlorobenzene	65.2%
d5-Phenol	65.9%	2-Fluorophenol	66.9%
2,4,6-Tribromophenol	72.0%	d4-2-Chlorophenol	64.8%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TH-DRUM1-SOIL  
SAMPLE

Lab Sample ID: NY64M  
LIMS ID: 08-30273  
Matrix: Soil  
Data Release Authorized: *MMW*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 18:24  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.17 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 13.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	61	< 61 U
111-44-4	Bis-(2-Chloroethyl) Ether	61	< 61 U
95-57-8	2-Chlorophenol	61	< 61 U
541-73-1	1,3-Dichlorobenzene	61	< 61 U
106-46-7	1,4-Dichlorobenzene	61	< 61 U
100-51-6	Benzyl Alcohol	61	< 61 U
95-50-1	1,2-Dichlorobenzene	61	< 61 U
95-48-7	2-Methylphenol	61	< 61 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	61	< 61 U
106-44-5	4-Methylphenol	61	< 61 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	61	< 61 U
98-95-3	Nitrobenzene	61	< 61 U
78-59-1	Isophorone	61	< 61 U
88-75-5	2-Nitrophenol	61	< 61 U
105-67-9	2,4-Dimethylphenol	61	< 61 U
65-85-0	Benzoic Acid	610	< 610 U
111-91-1	bis(2-Chloroethoxy) Methane	61	< 61 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	61	< 61 U
91-20-3	Naphthalene	61	< 61 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	61	< 61 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	61	< 61 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	61	< 61 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	61	< 61 U
208-96-8	Acenaphthylene	61	< 61 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	61	< 61 U
51-28-5	2,4-Dinitrophenol	610	< 610 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	61	< 61 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

Sample ID: TH-DRUM1-SOIL  
 SAMPLE

Lab Sample ID: NY64M  
 LIMS ID: 08-30273  
 Matrix: Soil  
 Date Analyzed: 11/14/08 18:24

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	61	< 61 U
7005-72-3	4-Chlorophenyl-phenylether	61	< 61 U
86-73-7	Fluorene	61	< 61 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	610	< 610 U
86-30-6	N-Nitrosodiphenylamine	61	< 61 U
101-55-3	4-Bromophenyl-phenylether	61	< 61 U
118-74-1	Hexachlorobenzene	61	< 61 U
87-86-5	Pentachlorophenol	310	< 310 U
85-01-8	Phenanthrene	61	< 61 U
86-74-8	Carbazole	61	< 61 U
120-12-7	Anthracene	61	< 61 U
84-74-2	Di-n-Butylphthalate	61	< 61 U
206-44-0	Fluoranthene	61	< 61 U
129-00-0	Pyrene	61	< 61 U
85-68-7	Butylbenzylphthalate	61	< 61 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo(a)anthracene	61	< 61 U
117-81-7	bis(2-Ethylhexyl)phthalate	61	< 61 U
218-01-9	Chrysene	61	< 61 U
117-84-0	Di-n-Octyl phthalate	61	< 61 U
205-99-2	Benzo(b)fluoranthene	61	< 61 U
207-08-9	Benzo(k)fluoranthene	61	< 61 U
50-32-8	Benzo(a)pyrene	61	< 61 U
193-39-5	Indeno(1,2,3-cd)pyrene	61	< 61 U
53-70-3	Dibenz(a,h)anthracene	61	< 61 U
191-24-2	Benzo(g,h,i)perylene	61	< 61 U
90-12-0	1-Methylnaphthalene	61	< 61 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	58.4%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	78.4%	d4-1,2-Dichlorobenzene	55.6%
d5-Phenol	67.5%	2-Fluorophenol	65.1%
2,4,6-Tribromophenol	72.5%	d4-2-Chlorophenol	65.9%

**SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
TDP26-8-081106	64.4%	68.8%	74.4%	68.8%	69.6%	72.5%	73.3%	71.5%		0
TDP28-11-081106	58.4%	61.6%	78.0%	61.6%	63.5%	65.3%	65.9%	62.4%		0
MB-111208	62.4%	66.0%	80.0%	66.0%	69.1%	71.5%	68.0%	67.2%		0
LCS-111208	60.0%	71.6%	81.6%	61.6%	68.5%	68.5%	71.2%	66.9%		0
LCSD-111208	64.0%	74.4%	86.8%	64.4%	73.1%	72.8%	73.1%	70.9%		0
TDP29-11-081106	59.6%	68.8%	76.0%	55.6%	66.7%	62.4%	72.5%	64.8%		0
TDP29-11-081106 MS	53.2%	67.2%	75.6%	52.0%	66.7%	57.1%	71.7%	60.0%		0
TDP29-11-081106 MSD	60.8%	67.6%	74.0%	64.0%	68.0%	67.7%	71.2%	66.7%		0
TDP31-12-081106	61.2%	69.2%	78.8%	65.2%	65.9%	66.9%	72.0%	64.8%		0
TH-DRUM1-SOIL	58.4%	68.8%	78.4%	55.6%	67.5%	65.1%	72.5%	65.9%		0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546  
Log Number Range: 08-30261 to 08-30273

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP29-11-081106  
MS/MSD

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Data Release Authorized: *W*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted MS/MSD: 11/12/08  
Date Analyzed MS: 11/14/08 16:42  
MSD: 11/14/08 17:16  
Instrument/Analyst MS: NT6/LJR  
MSD: NT6/LJR  
GPC Cleanup: NO

Sample Amount MS: 8.52 g-dry-wt  
MSD: 8.53 g-dry-wt  
Final Extract Volume MS: 0.5 mL  
MSD: 0.5 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Percent Moisture: 17.3 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 60.3	996	1470	67.8%	1070	1470	72.8%	7.2%
Bis-(2-Chloroethyl) Ether	< 60.3	1150	1470	78.2%	1180	1470	80.3%	2.6%
2-Chlorophenol	< 60.3	1010	1470	68.7%	1120	1470	76.2%	10.3%
1,3-Dichlorobenzene	< 60.3	854	1470	58.1%	1050	1470	71.4%	20.6%
1,4-Dichlorobenzene	< 60.3	842	1470	57.3%	1040	1470	70.7%	21.0%
Benzyl Alcohol	< 60.3	1260	2930	43.0%	1330	2930	45.4%	5.4%
1,2-Dichlorobenzene	< 60.3	868	1470	59.0%	1050	1470	71.4%	19.0%
2-Methylphenol	< 60.3	1070	1470	72.8%	1130	1470	76.9%	5.5%
2,2'-Oxybis(1-Chloropropane)	< 60.3	882	1470	60.0%	1050	1470	71.4%	17.4%
4-Methylphenol	< 60.3	2250	2930	76.8%	2290	2930	78.2%	1.8%
N-Nitroso-Di-N-Propylamine	< 302	972	1470	66.1%	1100	1470	74.8%	12.4%
Hexachloroethane	< 60.3	758	1470	51.6%	918	1470	62.4%	19.1%
Nitrobenzene	< 60.3	903	1470	61.4%	1020	1470	69.4%	12.2%
Isophorone	< 60.3	1130	1470	76.9%	1210	1470	82.3%	6.8%
2-Nitrophenol	< 60.3	1080	1470	73.5%	1190	1470	81.0%	9.7%
2,4-Dimethylphenol	< 60.3	1150	1470	78.2%	1150	1470	78.2%	0.0%
Benzoic Acid	< 60.3	3570	4400	81.1%	3650	4400	83.0%	2.2%
bis(2-Chloroethoxy) Methane	< 60.3	1070	1470	72.8%	1170	1470	79.6%	8.9%
2,4-Dichlorophenol	< 302	1270	1470	86.4%	1270	1470	86.4%	0.0%
1,2,4-Trichlorobenzene	< 60.3	1030	1470	70.1%	1150	1470	78.2%	11.0%
Naphthalene	< 60.3	1040	1470	70.7%	1150	1470	78.2%	10.0%
4-Chloroaniline	< 302	2860	3520	81.2%	2750	3520	78.1%	3.9%
Hexachlorobutadiene	< 60.3	988	1470	67.2%	1130	1470	76.9%	13.4%
4-Chloro-3-methylphenol	< 302	1290	1470	87.8%	1260	1470	85.7%	2.4%
2-Methylnaphthalene	< 60.3	1090	1470	74.1%	1130	1470	76.9%	3.6%
Hexachlorocyclopentadiene	< 302	1290	4400	29.3%	1160	4400	26.4%	10.6%
2,4,6-Trichlorophenol	< 302	1260	1470	85.7%	1240	1470	84.4%	1.6%
2,4,5-Trichlorophenol	< 302	1280	1470	87.1%	1240	1470	84.4%	3.2%
2-Chloronaphthalene	< 60.3	1190	1470	81.0%	1190	1470	81.0%	0.0%
2-Nitroaniline	< 302	1190	1470	81.0%	1150	1470	78.2%	3.4%
Dimethylphthalate	< 60.3	1290	1470	87.8%	1250	1470	85.0%	3.1%
Acenaphthylene	< 60.3	1260	1470	85.7%	1230	1470	83.7%	2.4%
3-Nitroaniline	< 302	3490	3760	92.8%	3270	3750	87.2%	6.5%
Acenaphthene	< 60.3	1260	1470	85.7%	1210	1470	82.3%	4.0%
2,4-Dinitrophenol	< 60.3	2490	4400	56.6%	2080	4400	47.3%	17.9%
4-Nitrophenol	< 302	1110	1470	75.5%	1070	1470	72.8%	3.7%
Dibenzofuran	< 60.3	1220	1470	83.0%	1160	1470	78.9%	5.0%
2,6-Dinitrotoluene	< 302	1310	1470	89.1%	1290	1470	87.8%	1.5%
2,4-Dinitrotoluene	< 302	1380	1470	93.9%	1340	1470	91.2%	2.9%
Diethylphthalate	< 60.3	1240	1470	84.4%	1190	1470	81.0%	4.1%
4-Chlorophenyl-phenylether	< 60.3	1250	1470	85.0%	1220	1470	83.0%	2.4%
Fluorene	< 60.3	1310	1470	89.1%	1260	1470	85.7%	3.9%
4-Nitroaniline	< 302	1250	1470	85.0%	1220	1470	83.0%	2.4%
4,6-Dinitro-2-Methylphenol	< 60.3	1780	4400	40.5%	1350	4400	30.7%	27.5%
N-Nitrosodiphenylamine	< 60.3	1330	1470	90.5%	1280	1470	87.1%	3.8%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP29-11-081106  
MS/MSD

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Date Analyzed MS: 11/14/08 16:42  
MSD: 11/14/08 17:16

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 60.3	1290	1470	87.8%	1250	1470	85.0%	3.1%
Hexachlorobenzene	< 60.3	1330	1470	90.5%	1290	1470	87.8%	3.1%
Pentachlorophenol	< 302	1070	1470	72.8%	1040	1470	70.7%	2.8%
Phenanthrene	< 60.3	1350	1470	91.8%	1310	1470	89.1%	3.0%
Carbazole	< 60.3	1370	1470	93.2%	1340	1470	91.2%	2.2%
Anthracene	< 60.3	1340	1470	91.2%	1300	1470	88.4%	3.0%
Di-n-Butylphthalate	< 60.3	1320	1470	89.8%	1280	1470	87.1%	3.1%
Fluoranthene	< 60.3	1390	1470	94.6%	1380	1470	93.9%	0.7%
Pyrene	< 60.3	1320	1470	89.8%	1280	1470	87.1%	3.1%
Butylbenzylphthalate	< 60.3	1380	1470	93.9%	1330	1470	90.5%	3.7%
3,3'-Dichlorobenzidine	< 302	3080	3760	81.9%	3210	3750	85.6%	4.1%
Benzo(a)anthracene	< 60.3	1380	1470	93.9%	1340	1470	91.2%	2.9%
bis(2-Ethylhexyl)phthalate	< 60.3	1480	1470	101%	1460	1470	99.3%	1.4%
Chrysene	< 60.3	1350	1470	91.8%	1330	1470	90.5%	1.5%
Di-n-Octyl phthalate	< 60.3	1310	1470	89.1%	1290	1470	87.8%	1.5%
Benzo(b)fluoranthene	< 60.3	1410	1470	95.9%	1490	1470	101%	5.5%
Benzo(k)fluoranthene	< 60.3	1520	1470	103%	1390	1470	94.6%	8.9%
Benzo(a)pyrene	< 60.3	1190	1470	81.0%	1170	1470	79.6%	1.7%
Indeno(1,2,3-cd)pyrene	< 60.3	975	1470	66.3%	936	1470	63.7%	4.1%
Dibenz(a,h)anthracene	< 60.3	1020	1470	69.4%	965	1470	65.6%	5.5%
Benzo(g,h,i)perylene	< 60.3	852	1470	58.0%	791	1470	53.8%	7.4%
1-Methylnaphthalene	< 60.3	1250	1470	85.0%	1290	1470	87.8%	3.1%

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

Sample ID: TDP29-11-081106  
MATRIX SPIKE

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 16:42  
Instrument/No: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.52 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 17.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	---
111-44-4	Bis-(2-Chloroethyl) Ether	59	---
95-57-8	2-Chlorophenol	59	---
541-73-1	1,3-Dichlorobenzene	59	---
106-46-7	1,4-Dichlorobenzene	59	---
100-51-6	Benzyl Alcohol	59	---
95-50-1	1,2-Dichlorobenzene	59	---
95-48-7	2-Methylphenol	59	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	59	---
106-44-5	4-Methylphenol	59	---
621-64-7	N-Nitroso-Di-N-Propylamine	290	---
67-72-1	Hexachloroethane	59	---
98-95-3	Nitrobenzene	59	---
78-59-1	Isophorone	59	---
88-75-5	2-Nitrophenol	59	---
105-67-9	2,4-Dimethylphenol	59	---
65-85-0	Benzoic Acid	590	---
111-91-1	bis(2-Chloroethoxy) Methane	59	---
120-83-2	2,4-Dichlorophenol	290	---
120-82-1	1,2,4-Trichlorobenzene	59	---
91-20-3	Naphthalene	59	---
106-47-8	4-Chloroaniline	290	---
87-68-3	Hexachlorobutadiene	59	---
59-50-7	4-Chloro-3-methylphenol	290	---
91-57-6	2-Methylnaphthalene	59	---
77-47-4	Hexachlorocyclopentadiene	290	---
88-06-2	2,4,6-Trichlorophenol	290	---
95-95-4	2,4,5-Trichlorophenol	290	---
91-58-7	2-Chloronaphthalene	59	---
88-74-4	2-Nitroaniline	290	---
131-11-3	Dimethylphthalate	59	---
208-96-8	Acenaphthylene	59	---
99-09-2	3-Nitroaniline	290	---
83-32-9	Acenaphthene	59	---
51-28-5	2,4-Dinitrophenol	590	---
100-02-7	4-Nitrophenol	290	---
132-64-9	Dibenzofuran	59	---
606-20-2	2,6-Dinitrotoluene	290	---
121-14-2	2,4-Dinitrotoluene	290	---

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP29-11-081106  
MATRIX SPIKE

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Date Analyzed: 11/14/08 16:42

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	59	---
7005-72-3	4-Chlorophenyl-phenylether	59	---
86-73-7	Fluorene	59	---
100-01-6	4-Nitroaniline	290	---
534-52-1	4,6-Dinitro-2-Methylphenol	590	---
86-30-6	N-Nitrosodiphenylamine	59	---
101-55-3	4-Bromophenyl-phenylether	59	---
118-74-1	Hexachlorobenzene	59	---
87-86-5	Pentachlorophenol	290	---
85-01-8	Phenanthrene	59	---
86-74-8	Carbazole	59	---
120-12-7	Anthracene	59	---
84-74-2	Di-n-Butylphthalate	59	---
206-44-0	Fluoranthene	59	---
129-00-0	Pyrene	59	---
85-68-7	Butylbenzylphthalate	59	---
91-94-1	3,3'-Dichlorobenzidine	290	---
56-55-3	Benzo (a) anthracene	59	---
117-81-7	bis (2-Ethylhexyl) phthalate	59	---
218-01-9	Chrysene	59	---
117-84-0	Di-n-Octyl phthalate	59	---
205-99-2	Benzo (b) fluoranthene	59	---
207-08-9	Benzo (k) fluoranthene	59	---
50-32-8	Benzo (a) pyrene	59	---
193-39-5	Indeno (1,2,3-cd) pyrene	59	---
53-70-3	Dibenz (a,h) anthracene	59	---
191-24-2	Benzo (g,h,i) perylene	59	---
90-12-0	1-Methylnaphthalene	59	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	53.2%	2-Fluorobiphenyl	67.2%
d14-p-Terphenyl	75.6%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	66.7%	2-Fluorophenol	57.1%
2,4,6-Tribromophenol	71.7%	d4-2-Chlorophenol	60.0%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP29-11-081106  
MATRIX SPIKE DUPLICATE

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Data Release Authorized: *MMW*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 17:16  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.53 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 17.3%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	---
111-44-4	Bis-(2-Chloroethyl) Ether	59	---
95-57-8	2-Chlorophenol	59	---
541-73-1	1,3-Dichlorobenzene	59	---
106-46-7	1,4-Dichlorobenzene	59	---
100-51-6	Benzyl Alcohol	59	---
95-50-1	1,2-Dichlorobenzene	59	---
95-48-7	2-Methylphenol	59	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	59	---
106-44-5	4-Methylphenol	59	---
621-64-7	N-Nitroso-Di-N-Propylamine	290	---
67-72-1	Hexachloroethane	59	---
98-95-3	Nitrobenzene	59	---
78-59-1	Isophorone	59	---
88-75-5	2-Nitrophenol	59	---
105-67-9	2,4-Dimethylphenol	59	---
65-85-0	Benzoic Acid	590	---
111-91-1	bis(2-Chloroethoxy) Methane	59	---
120-83-2	2,4-Dichlorophenol	290	---
120-82-1	1,2,4-Trichlorobenzene	59	---
91-20-3	Naphthalene	59	---
106-47-8	4-Chloroaniline	290	---
87-68-3	Hexachlorobutadiene	59	---
59-50-7	4-Chloro-3-methylphenol	290	---
91-57-6	2-Methylnaphthalene	59	---
77-47-4	Hexachlorocyclopentadiene	290	---
88-06-2	2,4,6-Trichlorophenol	290	---
95-95-4	2,4,5-Trichlorophenol	290	---
91-58-7	2-Chloronaphthalene	59	---
88-74-4	2-Nitroaniline	290	---
131-11-3	Dimethylphthalate	59	---
208-96-8	Acenaphthylene	59	---
99-09-2	3-Nitroaniline	290	---
83-32-9	Acenaphthene	59	---
51-28-5	2,4-Dinitrophenol	590	---
100-02-7	4-Nitrophenol	290	---
132-64-9	Dibenzofuran	59	---
606-20-2	2,6-Dinitrotoluene	290	---
121-14-2	2,4-Dinitrotoluene	290	---

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP29-11-081106  
MATRIX SPIKE DUPLICATE

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Date Analyzed: 11/14/08 17:16

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	59	---
7005-72-3	4-Chlorophenyl-phenylether	59	---
86-73-7	Fluorene	59	---
100-01-6	4-Nitroaniline	290	---
534-52-1	4,6-Dinitro-2-Methylphenol	590	---
86-30-6	N-Nitrosodiphenylamine	59	---
101-55-3	4-Bromophenyl-phenylether	59	---
118-74-1	Hexachlorobenzene	59	---
87-86-5	Pentachlorophenol	290	---
85-01-8	Phenanthrene	59	---
86-74-8	Carbazole	59	---
120-12-7	Anthracene	59	---
84-74-2	Di-n-Butylphthalate	59	---
206-44-0	Fluoranthene	59	---
129-00-0	Pyrene	59	---
85-68-7	Butylbenzylphthalate	59	---
91-94-1	3,3'-Dichlorobenzidine	290	---
56-55-3	Benzo(a)anthracene	59	---
117-81-7	bis(2-Ethylhexyl)phthalate	59	---
218-01-9	Chrysene	59	---
117-84-0	Di-n-Octyl phthalate	59	---
205-99-2	Benzo(b)fluoranthene	59	---
207-08-9	Benzo(k)fluoranthene	59	---
50-32-8	Benzo(a)pyrene	59	---
193-39-5	Indeno(1,2,3-cd)pyrene	59	---
53-70-3	Dibenz(a,h)anthracene	59	---
191-24-2	Benzo(g,h,i)perylene	59	---
90-12-0	1-Methylnaphthalene	59	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	60.8%	2-Fluorobiphenyl	67.6%
d14-p-Terphenyl	74.0%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	68.0%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	71.2%	d4-2-Chlorophenol	66.7%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-111208  
LCS/LCSD

Lab Sample ID: LCS-111208  
LIMS ID: 08-30264  
Matrix: Soil  
Data Release Authorized: *MMW*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted LCS/LCSD: 11/12/08

Sample Amount LCS: 7.50 g  
LCSD: 7.50 g

Date Analyzed LCS: 11/14/08 13:19  
LCSD: 11/14/08 13:53

Final Extract Volume LCS: 0.5 mL  
LCSD: 0.5 mL

Instrument/Analyst LCS: NT6/LJR  
LCSD: NT6/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	1220	1670	73.1%	1330	1670	79.6%	8.6%
Bis-(2-Chloroethyl) Ether	1250	1670	74.9%	1350	1670	80.8%	7.7%
2-Chlorophenol	1270	1670	76.0%	1370	1670	82.0%	7.6%
1,3-Dichlorobenzene	1160	1670	69.5%	1200	1670	71.9%	3.4%
1,4-Dichlorobenzene	1160	1670	69.5%	1190	1670	71.3%	2.6%
Benzyl Alcohol	1330	3330	39.9%	1530	3330	45.9%	14.0%
1,2-Dichlorobenzene	1160	1670	69.5%	1240	1670	74.3%	6.7%
2-Methylphenol	1260	1670	75.4%	1370	1670	82.0%	8.4%
2,2'-Oxybis(1-Chloropropane)	1180	1670	70.7%	1270	1670	76.0%	7.3%
4-Methylphenol	2650	3330	79.6%	2860	3330	85.9%	7.6%
N-Nitroso-Di-N-Propylamine	1270	1670	76.0%	1370	1670	82.0%	7.6%
Hexachloroethane	1090	1670	65.3%	1140	1670	68.3%	4.5%
Nitrobenzene	1170	1670	70.1%	1240	1670	74.3%	5.8%
Isophorone	1380	1670	82.6%	1500	1670	89.8%	8.3%
2-Nitrophenol	1370	1670	82.0%	1460	1670	87.4%	6.4%
2,4-Dimethylphenol	1300	1670	77.8%	1350	1670	80.8%	3.8%
Benzoic Acid	1650	5000	33.0%	< 667	5000	NA	NA
bis(2-Chloroethoxy) Methane	1340	1670	80.2%	1450	1670	86.8%	7.9%
2,4-Dichlorophenol	1450	1670	86.8%	1490	1670	89.2%	2.7%
1,2,4-Trichlorobenzene	1270	1670	76.0%	1360	1670	81.4%	6.8%
Naphthalene	1280	1670	76.6%	1370	1670	82.0%	6.8%
4-Chloroaniline	3440	4000	86.0%	3850	4000	96.2%	11.2%
Hexachlorobutadiene	1280	1670	76.6%	1310	1670	78.4%	2.3%
4-Chloro-3-methylphenol	1410	1670	84.4%	1470	1670	88.0%	4.2%
2-Methylnaphthalene	1260	1670	75.4%	1330	1670	79.6%	5.4%
Hexachlorocyclopentadiene	3860	5000	77.2%	3940	5000	78.8%	2.1%
2,4,6-Trichlorophenol	1480	1670	88.6%	1450	1670	86.8%	2.0%
2,4,5-Trichlorophenol	1470	1670	88.0%	1370	1670	82.0%	7.0%
2-Chloronaphthalene	1430	1670	85.6%	1470	1670	88.0%	2.8%
2-Nitroaniline	1360	1670	81.4%	1410	1670	84.4%	3.6%
Dimethylphthalate	1510	1670	90.4%	1560	1670	93.4%	3.3%
Acenaphthylene	1480	1670	88.6%	1510	1670	90.4%	2.0%
3-Nitroaniline	4240	4270	99.3%	4610	4270	108%	8.4%
Acenaphthene	1460	1670	87.4%	1480	1670	88.6%	1.4%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCSD-111208  
LCS/LCSD

Lab Sample ID: LCS-111208  
LIMS ID: 08-30264  
Matrix: Soil  
Date Analyzed LCS: 11/14/08 13:19  
LCSD: 11/14/08 13:53

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	4430	5000	88.6%	3260	5000	65.2%	30.4%
4-Nitrophenol	906	1670	54.3%	987	1670	59.1%	8.6%
Dibenzofuran	1400	1670	83.8%	1440	1670	86.2%	2.8%
2,6-Dinitrotoluene	1560	1670	93.4%	1580	1670	94.6%	1.3%
2,4-Dinitrotoluene	1590	1670	95.2%	1650	1670	98.8%	3.7%
Diethylphthalate	1480	1670	88.6%	1520	1670	91.0%	2.7%
4-Chlorophenyl-phenylether	1480	1670	88.6%	1520	1670	91.0%	2.7%
Fluorene	1510	1670	90.4%	1550	1670	92.8%	2.6%
4-Nitroaniline	1500	1670	89.8%	1610	1670	96.4%	7.1%
4,6-Dinitro-2-Methylphenol	3270	5000	65.4%	3230	5000	64.6%	1.2%
N-Nitrosodiphenylamine	1570	1670	94.0%	1600	1670	95.8%	1.9%
4-Bromophenyl-phenylether	1510	1670	90.4%	1590	1670	95.2%	5.2%
Hexachlorobenzene	1600	1670	95.8%	1630	1670	97.6%	1.9%
Pentachlorophenol	1140	1670	68.3%	1110	1670	66.5%	2.7%
Phenanthrene	1580	1670	94.6%	1600	1670	95.8%	1.3%
Carbazole	1670	1670	100%	1690	1670	101%	1.2%
Anthracene	1570	1670	94.0%	1600	1670	95.8%	1.9%
Di-n-Butylphthalate	1680	1670	101%	1680	1670	101%	0.0%
Fluoranthene	1730	1670	104%	1710	1670	102%	1.2%
Pyrene	1600	1670	95.8%	1660	1670	99.4%	3.7%
Butylbenzylphthalate	1670	1670	100%	1730	1670	104%	3.5%
3,3'-Dichlorobenzidine	4150	4270	97.2%	4420	4270	104%	6.3%
Benzo(a)anthracene	1640	1670	98.2%	1700	1670	102%	3.6%
bis(2-Ethylhexyl)phthalate	1790	1670	107%	1850	1670	111%	3.3%
Chrysene	1620	1670	97.0%	1660	1670	99.4%	2.4%
Di-n-Octyl phthalate	1570	1670	94.0%	1630	1670	97.6%	3.8%
Benzo(b)fluoranthene	1720	1670	103%	1620	1670	97.0%	6.0%
Benzo(k)fluoranthene	1680	1670	101%	1880	1670	113%	11.2%
Benzo(a)pyrene	1440	1670	86.2%	1500	1670	89.8%	4.1%
Indeno(1,2,3-cd)pyrene	1640	1670	98.2%	1730	1670	104%	5.3%
Dibenz(a,h)anthracene	1600	1670	95.8%	1690	1670	101%	5.5%
Benzo(g,h,i)perylene	1560	1670	93.4%	1700	1670	102%	8.6%
1-Methylnaphthalene	1430	1670	85.6%	1510	1670	90.4%	5.4%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	60.0%	64.0%
2-Fluorobiphenyl	71.6%	74.4%
d14-p-Terphenyl	81.6%	86.8%
d4-1,2-Dichlorobenzene	61.6%	64.4%
d5-Phenol	68.5%	73.1%
2-Fluorophenol	68.5%	72.8%
2,4,6-Tribromophenol	71.2%	73.1%
d4-2-Chlorophenol	66.9%	70.9%

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

Sample ID: MB-111208  
METHOD BLANK

Lab Sample ID: MB-111208  
LIMS ID: 08-30264  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 11/17/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/12/08  
Date Analyzed: 11/14/08 12:45  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

Sample ID: MB-111208  
 METHOD BLANK

Lab Sample ID: MB-111208  
 LIMS ID: 08-30264  
 Matrix: Soil  
 Date Analyzed: 11/14/08 12:45

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo(a)anthracene	67	< 67 U
117-81-7	bis(2-Ethylhexyl)phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo(b)fluoranthene	67	< 67 U
207-08-9	Benzo(k)fluoranthene	67	< 67 U
50-32-8	Benzo(a)pyrene	67	< 67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67	< 67 U
53-70-3	Dibenz(a,h)anthracene	67	< 67 U
191-24-2	Benzo(g,h,i)perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	62.4%	2-Fluorobiphenyl	66.0%
d14-p-Terphenyl	80.0%	d4-1,2-Dichlorobenzene	66.0%
d5-Phenol	69.1%	2-Fluorophenol	71.5%
2,4,6-Tribromophenol	68.0%	d4-2-Chlorophenol	67.2%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP26-GW-081106  
SAMPLE

Lab Sample ID: NY64H  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized:  
Reported: 11/20/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/18/08 15:26  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP26-GW-081106  
SAMPLE

Lab Sample ID: NY64H  
LIMS ID: 08-30268  
Matrix: Water  
Date Analyzed: 11/18/08 15:26

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	62.4%	2-Fluorobiphenyl	66.0%
d14-p-Terphenyl	70.0%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	60.0%	2-Fluorophenol	54.9%
2,4,6-Tribromophenol	88.5%	d4-2-Chlorophenol	61.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP28-GW-081106  
SAMPLE

Lab Sample ID: NY64I  
LIMS ID: 08-30269  
Matrix: Water  
Data Release Authorized:   
Reported: 11/20/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/18/08 16:01  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP28-GW-081106  
SAMPLE

Lab Sample ID: NY64I  
LIMS ID: 08-30269  
Matrix: Water  
Date Analyzed: 11/18/08 16:01

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
<b>117-81-7</b>	<b>bis (2-Ethylhexyl) phthalate</b>	<b>1.0</b>	<b>3.8</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	79.6%	2-Fluorobiphenyl	79.2%
d14-p-Terphenyl	83.2%	d4-1,2-Dichlorobenzene	76.0%
d5-Phenol	76.8%	2-Fluorophenol	70.9%
2,4,6-Tribromophenol	97.6%	d4-2-Chlorophenol	78.7%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP29-GW-081106  
SAMPLE

Lab Sample ID: NY64J  
LIMS ID: 08-30270  
Matrix: Water  
Data Release Authorized:  
Reported: 11/20/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/18/08 16:36  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	9.1
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	1.0
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	3.9
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	24
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP29-GW-081106  
SAMPLE

Lab Sample ID: NY64J  
LIMS ID: 08-30270  
Matrix: Water  
Date Analyzed: 11/18/08 16:36

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.0%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	41.2%	d4-1,2-Dichlorobenzene	61.6%
d5-Phenol	66.9%	2-Fluorophenol	64.3%
2,4,6-Tribromophenol	93.3%	d4-2-Chlorophenol	71.2%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TDP31-GW-081106  
SAMPLE

Lab Sample ID: NY64K  
LIMS ID: 08-30271  
Matrix: Water  
Data Release Authorized:   
Reported: 11/20/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/18/08 17:11  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TDP31-GW-081106  
SAMPLE

Lab Sample ID: NY64K  
LIMS ID: 08-30271  
Matrix: Water  
Date Analyzed: 11/18/08 17:11

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
<b>117-81-7</b>	<b>bis (2-Ethylhexyl) phthalate</b>	<b>1.0</b>	<b>3.0</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	80.8%	2-Fluorobiphenyl	79.2%
d14-p-Terphenyl	90.4%	d4-1,2-Dichlorobenzene	72.0%
d5-Phenol	78.1%	2-Fluorophenol	72.8%
2,4,6-Tribromophenol	105%	d4-2-Chlorophenol	81.6%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: TH-DRUM2-WATER  
SAMPLE

Lab Sample ID: NY64N  
LIMS ID: 08-30274  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 11/20/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/18/08 17:46  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
<b>65-85-0</b>	<b>Benzoic Acid</b>	<b>10</b>	<b>36</b>
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
<b>131-11-3</b>	<b>Dimethylphthalate</b>	<b>1.0</b>	<b>1.8</b>
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: TH-DRUM2-WATER  
SAMPLE

Lab Sample ID: NY64N  
LIMS ID: 08-30274  
Matrix: Water  
Date Analyzed: 11/18/08 17:46

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
<b>117-81-7</b>	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>3.1</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	68.4%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	44.0%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	66.7%	2-Fluorophenol	61.6%
2,4,6-Tribromophenol	98.9%	d4-2-Chlorophenol	70.1%

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-111108	70.0%	68.0%	83.2%	60.4%	66.1%	62.7%	79.2%	70.4%		0
LCS-111108	82.4%	86.8%	92.4%	75.6%	81.3%	77.1%	103%	83.2%		0
LCSD-111108	73.6%	80.4%	87.2%	60.8%	74.1%	64.3%	99.5%	73.9%		0
TDP26-GW-081106	62.4%	66.0%	70.0%	54.8%	60.0%	54.9%	88.5%	61.9%		0
TDP28-GW-081106	79.6%	79.2%	83.2%	76.0%	76.8%	70.9%	97.6%	78.7%		0
TDP29-GW-081106	70.0%	65.2%	41.2%	61.6%	66.9%	64.3%	93.3%	71.2%		0
TDP31-GW-081106	80.8%	79.2%	90.4%	72.0%	78.1%	72.8%	105%	81.6%		0
TH-DRUM2-WATER	68.4%	68.0%	44.0%	64.0%	66.7%	61.6%	98.9%	70.1%		0

**LCS/MB LIMITS**

**QC LIMITS**

(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C

Log Number Range: 08-30268 to 08-30274

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-111108  
LCS/LCSD

Lab Sample ID: LCS-111108  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 11/20/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted LCS/LCSD: 11/11/08

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 11/18/08 14:16  
LCSD: 11/18/08 14:51

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	22.1	25.0	88.4%	20.4	25.0	81.6%	8.0%
Bis-(2-Chloroethyl) Ether	21.7	25.0	86.8%	18.6	25.0	74.4%	15.4%
2-Chlorophenol	23.1	25.0	92.4%	20.3	25.0	81.2%	12.9%
1,3-Dichlorobenzene	16.7	25.0	66.8%	13.2	25.0	52.8%	23.4%
1,4-Dichlorobenzene	17.5	25.0	70.0%	13.7	25.0	54.8%	24.4%
Benzyl Alcohol	39.2	50.0	78.4%	36.8	50.0	73.6%	6.3%
1,2-Dichlorobenzene	18.0	25.0	72.0%	14.9	25.0	59.6%	18.8%
2-Methylphenol	22.9	25.0	91.6%	21.2	25.0	84.8%	7.7%
2,2'-Oxybis(1-Chloropropane)	19.4	25.0	77.6%	17.1	25.0	68.4%	12.6%
4-Methylphenol	44.9	50.0	89.8%	42.5	50.0	85.0%	5.5%
N-Nitroso-Di-N-Propylamine	19.6	25.0	78.4%	18.5	25.0	74.0%	5.8%
Hexachloroethane	14.4	25.0	57.6%	11.6	25.0	46.4%	21.5%
Nitrobenzene	19.6	25.0	78.4%	17.6	25.0	70.4%	10.8%
Isophorone	22.6	25.0	90.4%	21.3	25.0	85.2%	5.9%
2-Nitrophenol	25.1	25.0	100%	23.1	25.0	92.4%	8.3%
2,4-Dimethylphenol	20.5	25.0	82.0%	18.9	25.0	75.6%	8.1%
Benzoic Acid	81.1	75.0	108%	73.4	75.0	97.9%	10.0%
bis(2-Chloroethoxy) Methane	22.3	25.0	89.2%	20.4	25.0	81.6%	8.9%
2,4-Dichlorophenol	26.1	25.0	104%	23.7	25.0	94.8%	9.6%
1,2,4-Trichlorobenzene	19.5	25.0	78.0%	16.8	25.0	67.2%	14.9%
Naphthalene	21.5	25.0	86.0%	18.8	25.0	75.2%	13.4%
4-Chloroaniline	72.8	60.0	121%	72.1	60.0	120%	1.0%
Hexachlorobutadiene	16.5	25.0	66.0%	13.9	25.0	55.6%	17.1%
4-Chloro-3-methylphenol	25.5	25.0	102%	24.0	25.0	96.0%	6.1%
2-Methylnaphthalene	22.1	25.0	88.4%	21.0	25.0	84.0%	5.1%
Hexachlorocyclopentadiene	42.9	75.0	57.2%	38.2	75.0	50.9%	11.6%
2,4,6-Trichlorophenol	26.2	25.0	105%	24.6	25.0	98.4%	6.3%
2,4,5-Trichlorophenol	25.9	25.0	104%	24.8	25.0	99.2%	4.3%
2-Chloronaphthalene	24.9	25.0	99.6%	23.3	25.0	93.2%	6.6%
2-Nitroaniline	25.4	25.0	102%	24.1	25.0	96.4%	5.3%
Dimethylphthalate	25.1	25.0	100%	24.1	25.0	96.4%	4.1%
Acenaphthylene	24.2	25.0	96.8%	23.2	25.0	92.8%	4.2%
3-Nitroaniline	66.2	64.0	103%	64.8	64.0	101%	2.1%
Acenaphthene	24.5	25.0	98.0%	23.1	25.0	92.4%	5.9%
2,4-Dinitrophenol	108	75.0	144%	108	75.0	144%	0.0%
4-Nitrophenol	27.9	25.0	112%	27.6	25.0	110%	1.1%
Dibenzofuran	25.2	25.0	101%	23.6	25.0	94.4%	6.6%
2,6-Dinitrotoluene	29.6	25.0	118%	28.3	25.0	113%	4.5%
2,4-Dinitrotoluene	30.0	25.0	120%	28.0	25.0	112%	6.9%
Diethylphthalate	26.8	25.0	107%	25.5	25.0	102%	5.0%
4-Chlorophenyl-phenylether	25.2	25.0	101%	23.7	25.0	94.8%	6.1%
Fluorene	25.8	25.0	103%	24.4	25.0	97.6%	5.6%
4-Nitroaniline	25.2	25.0	101%	24.4	25.0	97.6%	3.2%
4,6-Dinitro-2-Methylphenol	55.2	75.0	73.6%	55.0	75.0	73.3%	0.4%
N-Nitrosodiphenylamine	24.4	25.0	97.6%	23.4	25.0	93.6%	4.2%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-111108  
LCS/LCSD

Lab Sample ID: LCS-111108  
LIMS ID: 08-30268  
Matrix: Water  
Date Analyzed: 11/18/08 14:16

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	25.0	25.0	100%	23.8	25.0	95.2%	4.9%
Hexachlorobenzene	26.3	25.0	105%	25.4	25.0	102%	3.5%
Pentachlorophenol	27.7	25.0	111%	27.9	25.0	112%	0.7%
Phenanthrene	25.3	28.0	90.4%	24.0	28.0	85.7%	5.3%
Carbazole	25.3	25.0	101%	25.0	25.0	100%	1.2%
Anthracene	23.1	25.0	92.4%	22.3	25.0	89.2%	3.5%
Di-n-Butylphthalate	25.5	25.0	102%	24.7	25.0	98.8%	3.2%
Fluoranthene	25.6	25.0	102%	25.9	25.0	104%	1.2%
Pyrene	25.7	25.0	103%	23.7	25.0	94.8%	8.1%
Butylbenzylphthalate	25.6	25.0	102%	24.0	25.0	96.0%	6.5%
3,3'-Dichlorobenzidine	57.1	64.0	89.2%	56.3	64.0	88.0%	1.4%
Benzo(a)anthracene	24.9	25.0	99.6%	24.0	25.0	96.0%	3.7%
bis(2-Ethylhexyl)phthalate	25.3	25.0	101%	24.6	25.0	98.4%	2.8%
Chrysene	24.9	28.0	88.9%	23.9	28.0	85.4%	4.1%
Di-n-Octyl phthalate	24.6	25.0	98.4%	23.8	25.0	95.2%	3.3%
Benzo(b)fluoranthene	25.1	25.0	100%	24.8	25.0	99.2%	1.2%
Benzo(k)fluoranthene	25.1	28.0	89.6%	23.8	28.0	85.0%	5.3%
Benzo(a)pyrene	20.5	25.0	82.0%	20.2	25.0	80.8%	1.5%
Indeno(1,2,3-cd)pyrene	23.4	25.0	93.6%	21.8	25.0	87.2%	7.1%
Dibenz(a,h)anthracene	24.0	25.0	96.0%	22.5	25.0	90.0%	6.5%
Benzo(g,h,i)perylene	21.2	25.0	84.8%	19.7	25.0	78.8%	7.3%
1-Methylnaphthalene	24.0	25.0	96.0%	22.2	25.0	88.8%	7.8%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	82.4%	73.6%
2-Fluorobiphenyl	86.8%	80.4%
d14-p-Terphenyl	92.4%	87.2%
d4-1,2-Dichlorobenzene	75.6%	60.8%
d5-Phenol	81.3%	74.1%
2-Fluorophenol	77.1%	64.3%
2,4,6-Tribromophenol	103%	99.5%
d4-2-Chlorophenol	83.2%	73.9%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: MB-111108  
METHOD BLANKLab Sample ID: MB-111108  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized:   
Reported: 11/20/08QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: NA  
Date Received: NADate Extracted: 11/11/08  
Date Analyzed: 11/18/08 13:41  
Instrument/Analyst: NT4/LJRSample Amount: 500 mL  
Final Extract Volume: 0.50 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-111108  
METHOD BLANK

Lab Sample ID: MB-111108  
LIMS ID: 08-30268  
Matrix: Water  
Date Analyzed: 11/18/08 13:41

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.0%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	83.2%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	66.1%	2-Fluorophenol	62.7%
2,4,6-Tribromophenol	79.2%	d4-2-Chlorophenol	70.4%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP26-GW-081106

SAMPLE

Lab Sample ID: NY64H

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30268

Project: BOEING THOMPSON

Matrix: Water

Event: 023173

Data Release Authorized: 

Date Sampled: 11/06/08

Reported: 11/17/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Sample Amount: 500 mL

Date Analyzed: 11/15/08 16:38

Final Extract Volume: 0.5 mL

Instrument/Analyst: NT1/YZ

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U
191-24-2	Benzo(g,h,i)perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene	66.0%
d14-Dibenzo(a,h)anthracene	52.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP28-GW-081106

SAMPLE

Lab Sample ID: NY64I

LIMS ID: 08-30269

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/17/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

Event: 023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 17:03

Instrument/Analyst: NT1/YZ

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>0.10</b>	<b>0.13</b>
120-12-7	Anthracene	0.10	< 0.10 U
<b>206-44-0</b>	<b>Fluoranthene</b>	<b>0.10</b>	<b>0.39</b>
<b>129-00-0</b>	<b>Pyrene</b>	<b>0.10</b>	<b>0.36</b>
<b>56-55-3</b>	<b>Benzo (a) anthracene</b>	<b>0.10</b>	<b>0.14</b>
<b>218-01-9</b>	<b>Chrysene</b>	<b>0.10</b>	<b>0.10</b>
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
<b>207-08-9</b>	<b>Benzo (k) fluoranthene</b>	<b>0.10</b>	<b>0.10</b>
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 58.3%  
d14-Dibenzo (a,h) anthracene 67.7%

**ORGANICS ANALYSIS DATA SHEET**

PNA<sub>s</sub> by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP29-GW-081106

SAMPLE

Lab Sample ID: NY64J

LIMS ID: 08-30270

Matrix: Water

Data Release Authorized: 

Reported: 11/17/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

Event: 023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 17:27

Instrument/Analyst: NT1/YZ

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
<b>85-01-8</b>	<b>Phenanthrene</b>	<b>0.10</b>	<b>0.11</b>
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
<b>129-00-0</b>	<b>Pyrene</b>	<b>0.10</b>	<b>0.11</b>
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 63.0%  
d14-Dibenzo (a,h) anthracene 29.0%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TDP31-GW-081106  
SAMPLE

Lab Sample ID: NY64K

LIMS ID: 08-30271

Matrix: Water

Data Release Authorized: 

Reported: 11/17/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

Event: 023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 17:52

Instrument/Analyst: NT1/YZ

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	0.11
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	0.10
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Dibenz (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 63.7%  
d14-Dibenzo (a,h)anthracene 55.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: TH-DRUM2-WATER  
SAMPLE

Lab Sample ID: NY64N

LIMS ID: 08-30274

Matrix: Water

Data Release Authorized: *AB*

Reported: 11/17/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

Event: 023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 18:17

Instrument/Analyst: NT1/YZ

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	0.13
91-57-6	2-Methylnaphthalene	0.10	0.10
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	0.31
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	0.17
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	0.12
129-00-0	Pyrene	0.10	0.12
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 63.3%  
d14-Dibenzo (a,h) anthracene 32.7%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-111108	66.7%	76.0%	0
LCS-111108	58.7%	76.7%	0
LCSD-111108	62.0%	70.7%	0
TDP26-GW-081106	66.0%	52.3%	0
TDP28-GW-081106	58.3%	67.7%	0
TDP29-GW-081106	63.0%	29.0%	0
TDP31-GW-081106	63.7%	55.3%	0
TH-DRUM2-WATER	63.3%	32.7%	0

**LCS/MB LIMITS      QC LIMITS**

(MNP) = d10-2-Methylnaphthalene      (49-113)      (44-112)  
(DBA) = d14-Dibenzo (a, h) anthracene      (49-132)      (10-138)

Prep Method: SW3520C  
Log Number Range: 08-30268 to 08-30274

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-111108

LAB CONTROL SAMPLE

Lab Sample ID: LCS-111108

LIMS ID: 08-30268

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/17/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

Event: 023173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/11/08

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 11/15/08 15:48

Final Extract Volume LCS: 0.50 mL

LCSD: 11/15/08 16:13

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/YZ

Dilution Factor LCS: 1.00

LCSD: NT1/YZ

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	1.80	3.00	60.0%	1.84	3.00	61.3%	2.2%
2-Methylnaphthalene	1.79	3.00	59.7%	1.87	3.00	62.3%	4.4%
1-Methylnaphthalene	1.65	3.00	55.0%	1.79	3.00	59.7%	8.1%
Acenaphthylene	1.85	3.00	61.7%	1.97	3.00	65.7%	6.3%
Acenaphthene	1.92	3.00	64.0%	1.94	3.00	64.7%	1.0%
Fluorene	2.00	3.00	66.7%	2.06	3.00	68.7%	3.0%
Phenanthrene	2.10	3.00	70.0%	2.13	3.00	71.0%	1.4%
Anthracene	2.20	3.00	73.3%	2.15	3.00	71.7%	2.3%
Fluoranthene	2.45	3.00	81.7%	2.37	3.00	79.0%	3.3%
Pyrene	2.43	3.00	81.0%	2.37	3.00	79.0%	2.5%
Benzo(a)anthracene	2.21	3.00	73.7%	2.19	3.00	73.0%	0.9%
Chrysene	2.21	3.00	73.7%	2.26	3.00	75.3%	2.2%
Benzo(b)fluoranthene	2.06	3.00	68.7%	1.99	3.00	66.3%	3.5%
Benzo(k)fluoranthene	2.47	3.00	82.3%	2.32	3.00	77.3%	6.3%
Benzo(a)pyrene	2.36	3.00	78.7%	2.18	3.00	72.7%	7.9%
Indeno(1,2,3-cd)pyrene	1.95	3.00	65.0%	1.83	3.00	61.0%	6.3%
Dibenz(a,h)anthracene	2.01	3.00	67.0%	1.93	3.00	64.3%	4.1%
Benzo(g,h,i)perylene	1.96	3.00	65.3%	1.82	3.00	60.7%	7.4%
Dibenzofuran	1.91	3.00	63.7%	1.97	3.00	65.7%	3.1%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	58.7%	62.0%
d14-Dibenzo(a,h)anthracene	76.7%	70.7%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-111108

METHOD BLANK

Lab Sample ID: MB-111108

LIMS ID: 08-30268

Matrix: Water

Data Release Authorized: *AB*

Reported: 11/17/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

Event: 023173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 15:24

Instrument/Analyst: NT1/YZ

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	0.10	< 0.10 U
91-57-6	2-Methylnaphthalene	0.10	< 0.10 U
90-12-0	1-Methylnaphthalene	0.10	< 0.10 U
208-96-8	Acenaphthylene	0.10	< 0.10 U
83-32-9	Acenaphthene	0.10	< 0.10 U
86-73-7	Fluorene	0.10	< 0.10 U
85-01-8	Phenanthrene	0.10	< 0.10 U
120-12-7	Anthracene	0.10	< 0.10 U
206-44-0	Fluoranthene	0.10	< 0.10 U
129-00-0	Pyrene	0.10	< 0.10 U
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U
191-24-2	Benzo (g,h,i) perylene	0.10	< 0.10 U
132-64-9	Dibenzofuran	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 66.7%  
d14-Dibenzo (a,h) anthracene 76.0%

**ORGANICS ANALYSIS DATA SHEET**  
**PCB by GC/ECD Method SW8082**  
 Page 1 of 1

Sample ID: TDP26-8-081106  
**SAMPLE**

Lab Sample ID: NY64A  
 LIMS ID: 08-30261  
 Matrix: Soil  
 Data Release Authorized:  
 Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173  
 Date Sampled: 11/06/08  
 Date Received: 11/06/08

Date Extracted: 11/11/08  
 Date Analyzed: 11/15/08 21:11  
 Instrument/Analyst: ECD5/PK  
 GPC Cleanup: No  
 Sulfur Cleanup: Yes  
 Acid Cleanup: Yes  
 Florisil Cleanup: No

Sample Amount: 12.3 g-dry-wt  
 Final Extract Volume: 4.0 mL  
 Dilution Factor: 1.00  
 Silica Gel: No  
 Percent Moisture: 17.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	84.0%
Tetrachlorometaxylene	79.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TDP28-11-081106  
SAMPLE

Lab Sample ID: NY64C  
LIMS ID: 08-30263  
Matrix: Soil  
Data Release Authorized:  
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/15/08 21:28  
Instrument/Analyst: ECD5/PK  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 13.2 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 22.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	< 30 U
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	75.8%
Tetrachlorometaxylene	74.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TDP29-11-081106  
SAMPLE

Lab Sample ID: NY64D  
LIMS ID: 08-30264  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/15/08 21:45  
Instrument/Analyst: ECD5/PK  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 17.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	79.8%
Tetrachlorometaxylene	76.8%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP31-12-081106

SAMPLE

Lab Sample ID: NY64F

LIMS ID: 08-30266

Matrix: Soil

Data Release Authorized: 

Reported: 11/19/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 22:02

Instrument/Analyst: ECD5/PK

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 22.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	80.0%
Tetrachlorometaxylene	75.2%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TH-DRUM1-SOIL  
SAMPLE

Lab Sample ID: NY64M

LIMS ID: 08-30273

Matrix: Soil

Data Release Authorized: *AS*

Reported: 11/19/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 22:19

Instrument/Analyst: ECD5/PK

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.2 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 13.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	83.2%
Tetrachlorometaxylene	80.2%

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT	OUT
TDP26-8-081106	84.0%	40-139	79.0%	49-120		0
TDP28-11-081106	75.8%	40-139	74.0%	49-120		0
TDP29-11-081106	79.8%	40-139	76.8%	49-120		0
TDP31-12-081106	80.0%	40-139	75.2%	49-120		0
MB-111108	84.2%	59-122	74.8%	61-118		0
LCS-111108	87.5%	59-122	78.8%	61-118		0
LCSD-111108	82.2%	59-122	77.5%	61-118		0
TH-DRUM1-SOIL	83.2%	40-139	80.2%	49-120		0
TH-DRUM1-SOIL MS	80.2%	40-139	78.8%	49-120		0
TH-DRUM1-SOIL MSD	83.2%	40-139	83.0%	49-120		0

Standard Sonication Control Limits  
Prep Method: SW3550B  
Log Number Range: 08-30261 to 08-30273

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TH-DRUM1-SOIL  
MS/MSD

Lab Sample ID: NY64M  
LIMS ID: 08-30273  
Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted MS/MSD: 11/11/08

Sample Amount MS: 12.3 g-dry-wt  
MSD: 12.3 g-dry-wt

Date Analyzed MS: 11/15/08 22:36  
MSD: 11/15/08 22:53

Final Extract Volume MS: 4.0 mL  
MSD: 4.0 mL

Instrument/Analyst MS: ECD5/PK  
MSD: ECD5/PK

Dilution Factor MS: 1.00  
MSD: 1.00

GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Silica Gel: No

Percent Moisture: 13.1%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 32.8 U	100	163	61.3%	104	162	64.2%	3.9%
Aroclor 1260	< 32.8 U	119	163	73.0%	124	162	76.5%	4.1%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TH-DRUML-SOIL  
MATRIX SPIKE

Lab Sample ID: NY64M

LIMS ID: 08-30273

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/19/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 22:36

Instrument/Analyst: ECD5/PK

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 13.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	---
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	---
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	80.2%
Tetrachlorometaxylene	78.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TH-DRUM1-SOIL  
MATRIX SPIKE DUP

Lab Sample ID: NY64M  
LIMS ID: 08-30273  
Matrix: Soil  
Data Release Authorized: *AS*  
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/11/08  
Date Analyzed: 11/15/08 22:53  
Instrument/Analyst: ECD5/PK  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.3 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 13.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	---
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	---
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	83.2%
Tetrachlorometaxylene	83.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-111108

LCS/LCSD

Lab Sample ID: LCS-111108

LIMS ID: 08-30273

Matrix: Soil

Data Release Authorized: *AS*

Reported: 11/19/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 11/11/08

Sample Amount LCS: 12.0 g-dry-wt

LCSD: 12.0 g-dry-wt

Date Analyzed LCS: 11/15/08 20:37

Final Extract Volume LCS: 4.0 mL

LCSD: 11/15/08 20:54

LCSD: 4.0 mL

Instrument/Analyst LCS: ECD5/PK

Dilution Factor LCS: 1.00

LCSD: ECD5/PK

LCSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: Yes

Percent Moisture: NA

Acid Cleanup: Yes

Florisil Cleanup: No

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	LCSD		
Aroclor 1016	119	167	71.4%	103	167	61.8%	14.4%		
Aroclor 1260	142	167	85.2%	127	167	76.2%	11.2%		

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	87.5%	82.2%
Tetrachlorometaxylene	78.8%	77.5%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: MB-111108

METHOD BLANK

Lab Sample ID: MB-111108

LIMS ID: 08-30273

Matrix: Soil

Data Release Authorized: 

Reported: 11/19/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: NA

Date Received: NA

Date Extracted: 11/11/08

Date Analyzed: 11/15/08 20:20

Instrument/Analyst: ECD5/PK

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	84.2%
Tetrachlorometaxylene	74.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TDP26-GW-081106  
SAMPLE

Lab Sample ID: NY64H  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized:   
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/15/08 17:46  
Instrument/Analyst: ECD5/PKC  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	82.5%
Tetrachlorometaxylene	81.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TDP28-GW-081106  
SAMPLE

Lab Sample ID: NY64I  
LIMS ID: 08-30269  
Matrix: Water  
Data Release Authorized:   
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/15/08 18:03  
Instrument/Analyst: ECD5/PKC  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	80.5%
Tetrachlorometaxylene	81.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TDP29-GW-081106

SAMPLE

Lab Sample ID: NY64J

LIMS ID: 08-30270

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/19/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/12/08

Date Analyzed: 11/15/08 18:20

Instrument/Analyst: ECD5/PKC

GPC Cleanup: No

Sulfur Cleanup: Yes

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	80.0%
Tetrachlorometaxylene	78.2%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: TDP31-GW-081106  
SAMPLE

Lab Sample ID: NY64K  
LIMS ID: 08-30271  
Matrix: Water  
Data Release Authorized:   
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Date Extracted: 11/12/08  
Date Analyzed: 11/15/08 18:37  
Instrument/Analyst: ECD5/PKC  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	82.0%
Tetrachlorometaxylene	90.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: TH-DRUM2-WATER

SAMPLE

Lab Sample ID: NY64N

LIMS ID: 08-30274

Matrix: Water

Data Release Authorized: 

Reported: 11/19/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Date Extracted: 11/12/08

Date Analyzed: 11/15/08 18:54

Instrument/Analyst: ECD5/PKC

GPC Cleanup: No

Sulfur Cleanup: Yes

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	51.0%
Tetrachlorometaxylene	78.5%

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT	OUT
MB-111208	54.8%	47-101	77.8%	61-104	0	
LCS-111208	78.2%	47-101	77.5%	61-104	0	
LCSD-111208	72.5%	47-101	81.0%	61-104	0	
TDP26-GW-081106	82.5%	42-120	81.0%	55-102	0	
TDP28-GW-081106	80.5%	42-120	81.0%	55-102	0	
TDP29-GW-081106	80.0%	42-120	78.2%	55-102	0	
TDP31-GW-081106	82.0%	42-120	90.0%	55-102	0	
TH-DRUM2-WATER	51.0%	42-120	78.5%	55-102	0	

Prep Method: SW3510C  
Log Number Range: 08-30268 to 08-30274



ORGANICS ANALYSIS DATA SHEET  
 PCB by GC/ECD Method SW8082  
 Page 1 of 1

Sample ID: LCS-111208  
 LCS/LCSD

Lab Sample ID: LCS-111208  
 LIMS ID: 08-30268  
 Matrix: Water  
 Data Release Authorized: *RB*  
 Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173  
 Date Sampled: NA  
 Date Received: NA

Date Extracted LCS/LCSD: 11/12/08

Sample Amount LCS: 500 mL  
 LCSD: 500 mL

Date Analyzed LCS: 11/15/08 17:12  
 LCSD: 11/15/08 17:29

Final Extract Volume LCS: 5.0 mL  
 LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/PKC  
 LCSD: ECD5/PKC

Dilution Factor LCS: 1.00  
 LCSD: 1.00

GPC Cleanup: No  
 Sulfur Cleanup: Yes

Silica Gel: No  
 Acid Cleanup: Yes

Analyte	Spike		LCS		Spike		LCSD	
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	RPD	
Aroclor 1016	3.56	5.00	71.2%	3.62	5.00	72.4%	1.7%	
Aroclor 1260	4.15	5.00	83.0%	4.14	5.00	82.8%	0.2%	

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	78.2%	72.5%
Tetrachlorometaxylene	77.5%	81.0%

Results reported in  $\mu\text{g/L}$   
 RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: MB-111208  
METHOD BLANK

Lab Sample ID: MB-111208  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized:   
Reported: 11/19/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/12/08  
Date Analyzed: 11/15/08 16:55  
Instrument/Analyst: ECD5/PKC  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	54.8%
Tetrachlorometaxylene	77.8%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 2

Matrix: Soil

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Data Release Authorized: 

Reported: 11/25/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
NY64A 08-30261	TDP26-8-081106 HC ID: <b>MOTOR OIL</b>	11/10/08	11/12/08	1.0	Gas Diesel <b>Oil</b> o-Terphenyl	< 20 U < 50 U > 100 108%
NY64B 08-30262	TDP27-11-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 110%
NY64C 08-30263	TDP28-11-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 115%
NY64D 08-30264	TDP29-11-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 112%
NY64E 08-30265	TDP30-11-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 109%
NY64F 08-30266	TDP31-12-081106 HC ID: <b>DRO/MOTOR OIL</b>	11/10/08	11/12/08	1.0	Gas <b>Diesel</b> <b>Oil</b> o-Terphenyl	< 20 U > 50 > 100 115%
MB-111008 08-30267	Method Blank	11/10/08	11/12/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 106%
NY64G 08-30267	TDP32-11-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 117%
NY64GDP 08-30267	TDP32-11-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 110%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID  
Page 2 of 2  
Matrix: Soil

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Data Release Authorized:  
Reported: 11/25/08

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
NY64M	TH-DRUM1-SOIL	11/10/08	11/12/08	1.0	Gas	< 20 U
08-30273	HC ID: DRO/MOTOR OIL				Diesel	> 50
					Oil	> 100
					o-Terphenyl	54.9%

Reported in mg/kg (ppm)

Gas value based on total peaks in the range from Toluene to C12.  
Diesel value based on the total peaks in the range from C12 to C24.  
Oil value based on the total peaks in the range from C24 to C38.

PC  
11/14/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a105.d ARI ID: NY64MBS1  
 Method: /chem3/fid3a.i/20081111b.b/1111a094b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 17:55  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/14/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.826	0.010	39899	27200	GAS (Tol-C12)	1852862	28
C8	1.915	0.005	31530	21228	DIESEL (C12-C24)	295054	19
C10	2.423	-0.014	16460	33754	M.OIL (C24-C38)	281865	40
C12	2.913	0.007	5100	5267	AK-102 (C10-C25)	508349	27
C14	3.318	0.000	3850	2889	AK-103 (C25-C36)	217134	40
C16	3.696	-0.001	2723	652	OR.DIES (C10-C28)	554983	28
C18	4.123	0.002	1877	1003	OR.MOIL (C28-C40)	307617	33
C20	4.536	-0.003	1707	1592	JET-A (C10-C18)	421005	25
C22	4.897	0.003	1383	1178	MIN.OIL (C24-C38)	281865	22
C24	5.193	-0.003	1419	1587	MSPRIT (Tol-C12)	1852862	117
C25	5.340	0.008	1433	775			
C26	5.463	0.003	1523	393			
C28	5.695	-0.001	2278	2482			
C32	6.125	-0.002	3629	2524			
C34	6.364	0.001	3729	2078			
Filter Peak	8.441	0.001	3146	874	JP-4 (Tol-C14)	1946816	171
C36	6.645	0.003	3598	3150	CREOSOT (C8-C22)	1072745	172
C38	7.006	0.004	3394	1486			
C40	7.469	0.004	3267	2020	BUNKERC (C10-C38)	787822	88
AZDIESEL (C10-C22)			420703	26			
AZMOIL (C22-C32)			144433	22			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	825784	47.7	106.0
Triacotane	437306	40.3	89.5

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 17:55

Client ID:

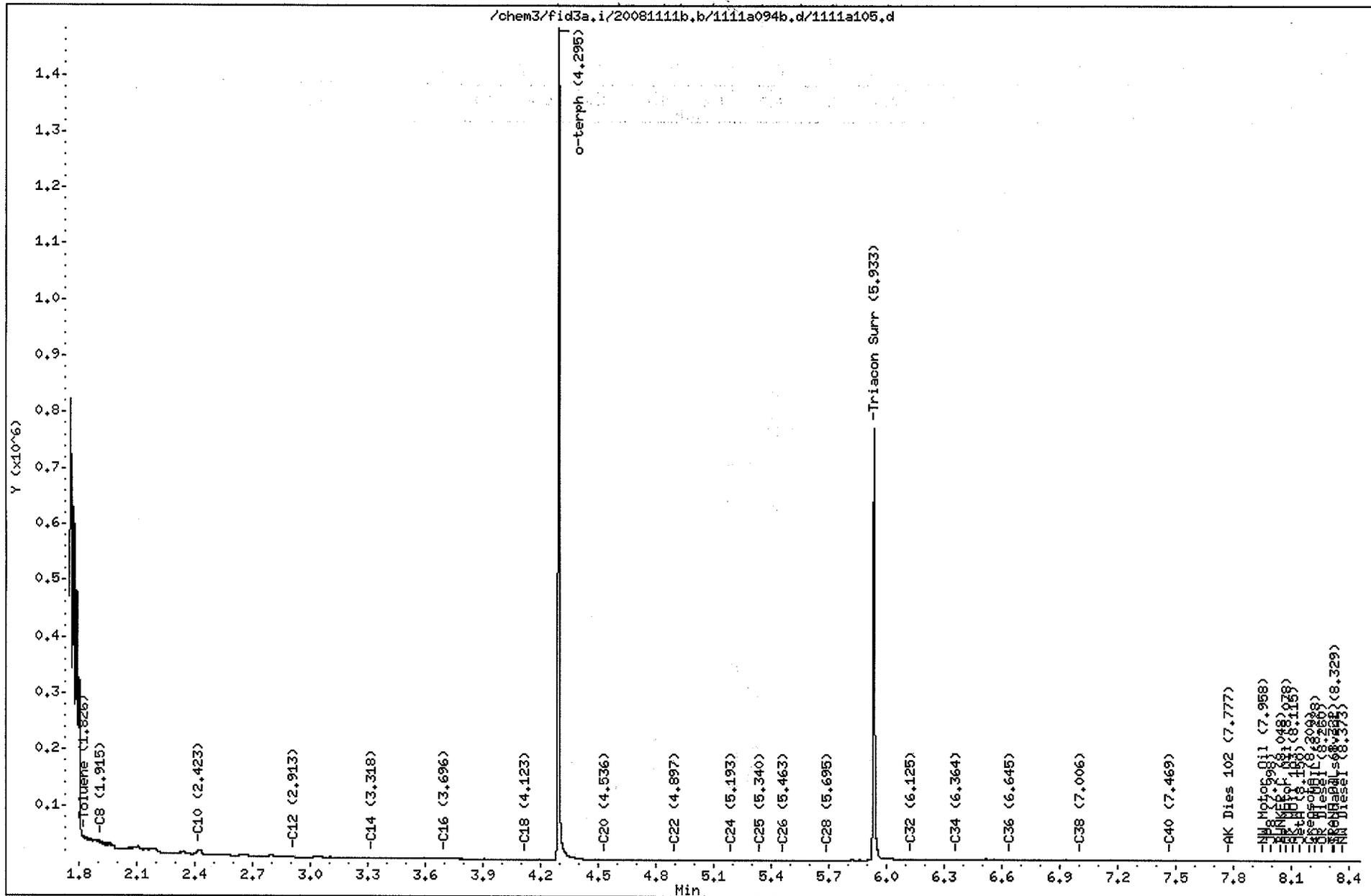
Instrument: fid3a.i

Sample Info: NY64MBS1

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



PL  
11/14/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a106.d ARI ID: NY64A  
 Method: /chem3/fid3a.i/20081111b.b/1111a094b.d/ftphfid3a.m Client ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 18:10  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/14/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.817	0.000	41352	20724	GAS (Tol-C12)	1784457	27
C8	1.905	-0.005	32884	23533	DIESEL (C12-C24)	914692	60
C10	2.427	-0.010	16134	23080	M.OIL (C24-C38)	2240800	319
C12	2.915	0.009	5246	5046	AK-102 (C10-C25)	1196904	63
C14	3.318	0.000	4259	593	AK-103 (C25-C36)	1991393	366
C16	3.696	-0.001	3875	1462	OR.DIES (C10-C28)	1880171	96
C18	4.123	0.002	4379	781	OR.MOIL (C28-C40)	1701598	182
C20	4.538	-0.001	7250	2834	JET-A (C10-C18)	538427	32
C22	4.893	-0.002	12482	5141	MIN.OIL (C24-C38)	2240800	175
C24	5.193	-0.004	19146	19835	MSPiRIT (Tol-C12)	1784457	113
C25	5.330	-0.002	21017	11174			
C26	5.461	0.001	25076	20845			
C28	5.691	-0.005	31939	29112			
C32	6.127	-0.001	25650	4054			
C34	6.365	0.002	18038	4677			
Filter Peak	8.442	0.002	4150	2220	JP-4 (Tol-C14)	1896190	167
C36	6.642	0.001	12777	2514	CREOSOT (C8-C22)	1457217	234
C38	6.998	-0.003	8935	3502			
C40	7.465	0.000	6008	3656	BUNKERC (C10-C38)	3401331	381
AZDIESEL (C10-C22)			814800	51			
AZMOIL (C22-C32)			1810526	281			

DPO  
MLO

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	838245	48.4	107.6
Triacotane	403258	37.1	82.5

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081111b,b/1111a094b,d/1111a106.d

Date : 12-NOV-2008 18:10

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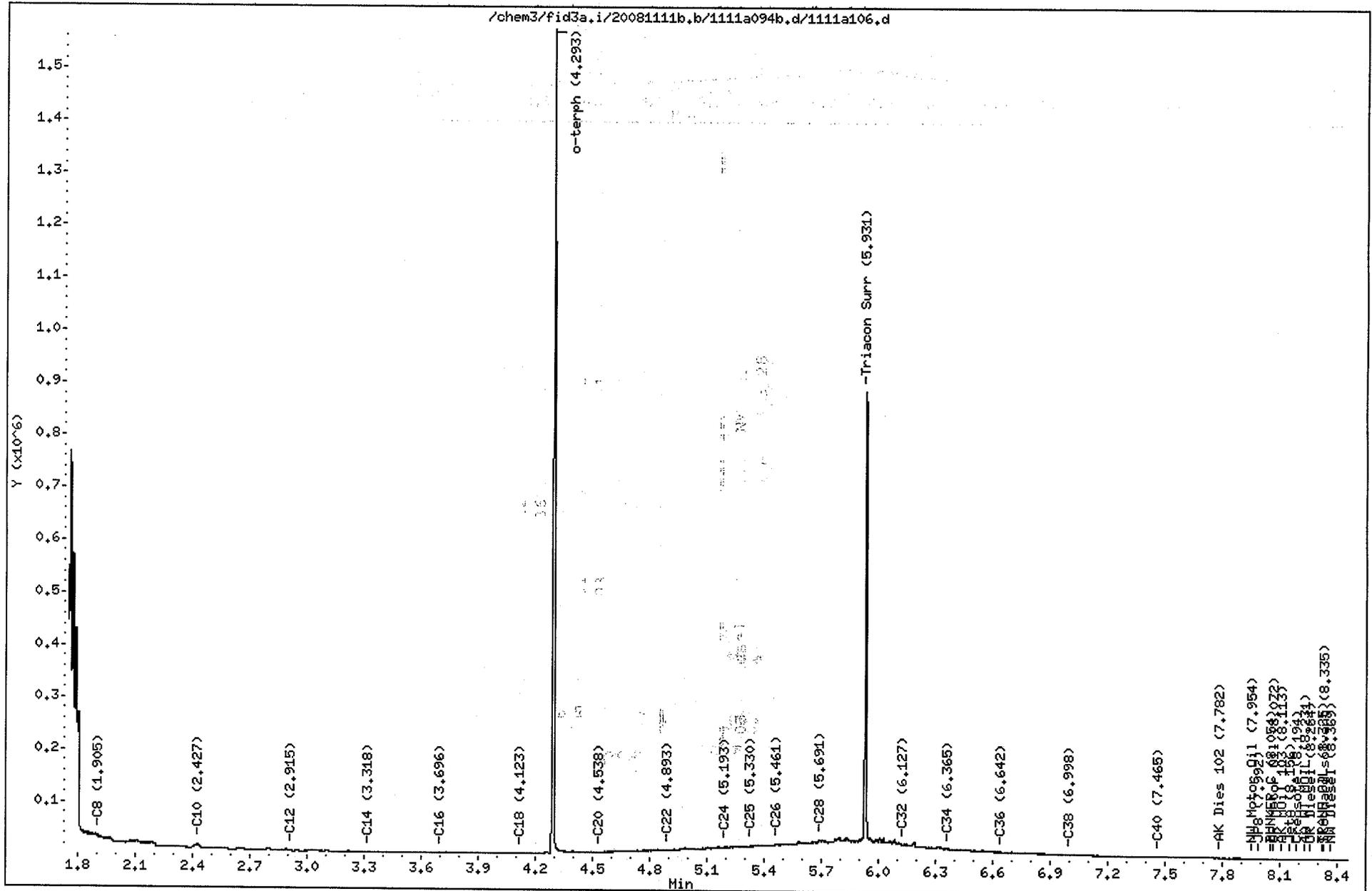
Instrument: fid3a.i

Sample Info: NY64A

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



PL  
11/14/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a107.d ARI ID: NY64B  
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 Instrument: fid3a.i Injection: 12-NOV-2008 18:25  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/14/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.829	0.013	40294	35546	GAS (Tol-C12)	1765726	27
C8	1.908	-0.002	33330	22776	DIESEL (C12-C24)	339509	22
C10	2.430	-0.007	15653	18510	M.OIL (C24-C38)	396020	56
C12	2.915	0.009	5045	3880	AK-102 (C10-C25)	597586	31
C14	3.314	-0.004	3835	1293	AK-103 (C25-C36)	303537	56
C16	3.695	-0.002	2836	564	OR.DIES (C10-C28)	669612	34
C18	4.120	-0.001	2059	1015	OR.MOIL (C28-C40)	420600	45
C20	4.536	-0.004	1992	433	JET-A (C10-C18)	475987	28
C22	4.894	0.000	1865	962	MIN.OIL (C24-C38)	396020	31
C24	5.193	-0.004	2075	453	MSPRIT (Tol-C12)	1765726	112
C25	5.323	-0.009	2508	2282			
C26	5.461	0.002	2528	1997			
C28	5.698	0.002	3410	3096			
C32	6.127	0.000	4829	3706			
C34	6.371	0.007	4642	1018			
Filter Peak	8.440	0.000	3495	1882	JP-4 (Tol-C14)	1865575	164
C36	6.641	-0.001	4468	3897	CREOSOT (C8-C22)	1117780	179
C38	7.006	0.005	3994	1274			
C40	7.469	0.004	3780	3597	BUNKERC (C10-C38)	988558	111
AZDIESEL (C10-C22)			480531	30			
AZMOIL (C22-C32)			209971	33			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	854179	49.3	109.6
Triacontane	455965	42.0	93.3

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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Date : 12-NOV-2008 18:25

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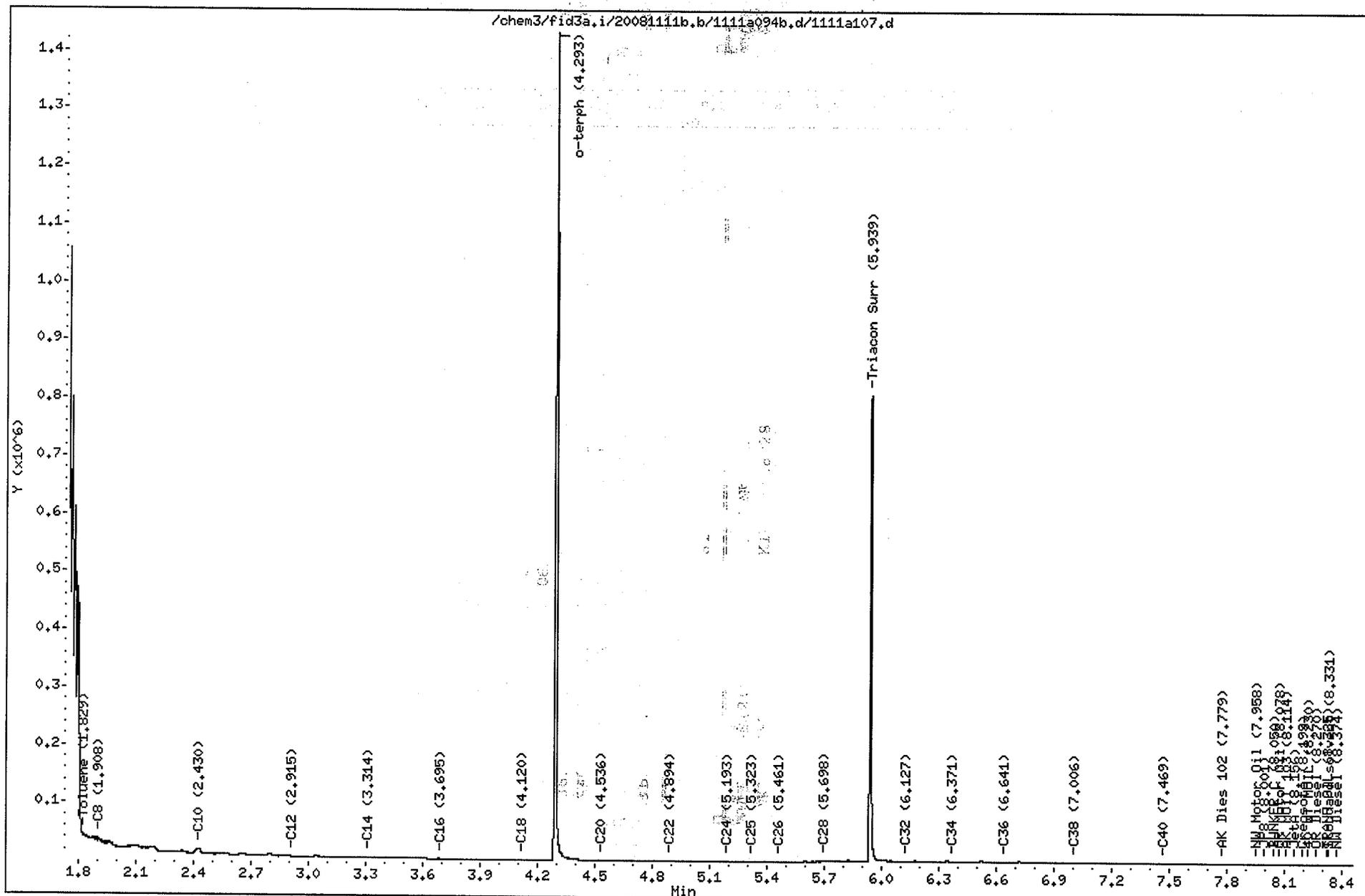
Instrument: fid3a.i

Sample Info: NY64B

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



PC  
11/24/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a108.d ARI ID: NY64C  
Method: /chem3/fid3a.i/20081111b.b/1111a094b.d/ftphfid3a.mClient ID:  
Instrument: fid3a.i Injection: 12-NOV-2008 18:40  
Operator: ms Dilution Factor: 1  
Report Date: 11/14/2008  
Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.826	0.009	39525	26248	GAS (Tol-C12)	1867659	29
C8	1.915	0.005	31435	23253	DIESEL (C12-C24)	348988	23
C10	2.432	-0.005	15622	18096	M.OIL (C24-C38)	373322	53
C12	2.890	-0.016	7339	10386	AK-102 (C10-C25)	600269	32
C14	3.314	-0.004	3962	1966	AK-103 (C25-C36)	287055	53
C16	3.699	0.002	2974	3204	OR.DIES (C10-C28)	675986	34
C18	4.118	-0.003	2124	1839	OR.MOIL (C28-C40)	389535	42
C20	4.550	0.011	2134	2374	JET-A (C10-C18)	468990	28
C22	4.891	-0.004	2019	362	MIN.OIL (C24-C38)	373322	29
C24	5.192	-0.005	2212	349	MSPRIT (Tol-C12)	1867659	118
C25	5.340	0.008	3122	3545			
C26	5.468	0.008	2901	3604			
C28	5.693	-0.003	3508	4012			
C32	6.132	0.005	4433	1146			
C34	6.361	-0.002	4382	875			
Filter Peak	8.442	0.002	3295	1116	JP-4 (Tol-C14)	1964192	173
C36	6.645	0.003	4106	2213	CREOSOT (C8-C22)	1111019	178
C38	6.999	-0.003	3759	2547			
C40	7.465	0.000	3526	1055	BUNKERC (C10-C38)	968984	108
AZDIESEL (C10-C22)			487289	30			
AZMOIL (C22-C32)			209856	33			

Range Times: NW Diesel(2.956 - 5.247) NW Gas(1.766 - 2.956) NW M.Oil(5.247 - 7.051)  
AK102(2.387 - 5.282) AK103(5.282 - 6.691) Jet A(2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	892614	51.5	114.5
Triacontane	471622	43.4	96.5

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 18:40

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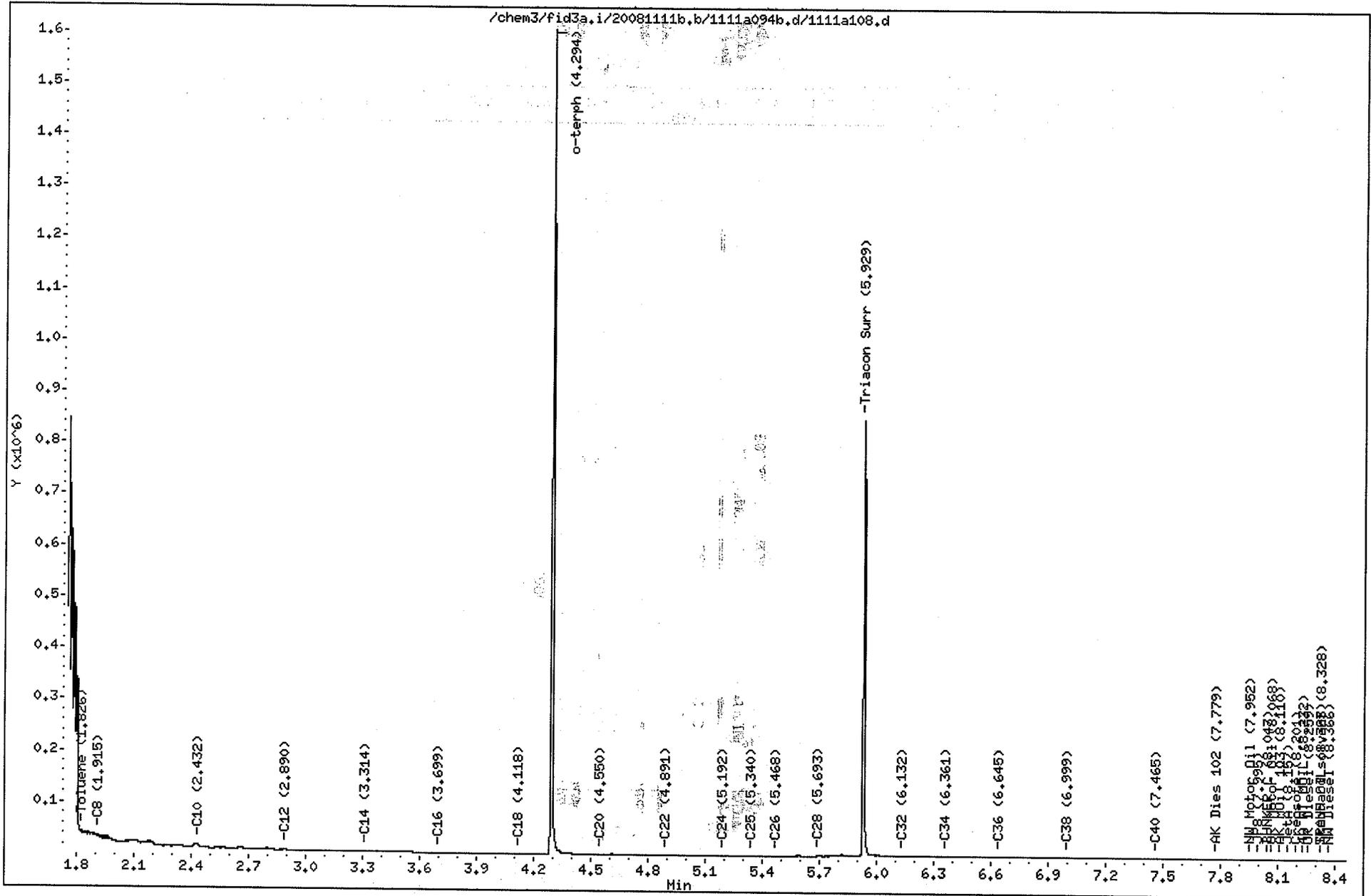
Sample Info: NY64C

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



Analytical Resources Inc.  
TPH Quantitation Report

RL  
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Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a109.d ARI ID: NY64D  
Method: /chem3/fid3a.i/20081111b.b/1111a094b.d/ftphfid3a.mClient ID:  
Instrument: fid3a.i Injection: 12-NOV-2008 18:54  
Operator: ms Dilution Factor: 1  
Report Date: 11/14/2008  
Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.816	0.000	41277	19595	GAS (Tol-C12)	1838621	28
C8	1.904	-0.006	33650	22441	DIESEL (C12-C24)	404728	27
C10	2.449	0.011	9320	6585	M.OIL (C24-C38)	527196	75
C12	2.916	0.010	5121	3120	AK-102 (C10-C25)	646754	34
C14	3.318	0.000	4074	1050	AK-103 (C25-C36)	420157	77
C16	3.699	0.001	3068	1827	OR.DIES (C10-C28)	770197	39
C18	4.117	-0.004	2381	2602	OR.MOIL (C28-C40)	504367	54
C20	4.542	0.003	2615	2653	JET-A (C10-C18)	463343	28
C22	4.895	0.001	3108	1406	MIN.OIL (C24-C38)	527196	41
C24	5.198	0.001	3921	4140	MSPiRIT (Tol-C12)	1838621	116
C25	5.336	0.003	4955	5295			
C26	5.463	0.003	4647	2259			
C28	5.699	0.004	5765	3670			
C32	6.128	0.001	6347	2377			
C34	6.369	0.006	6098	4422			
Filter Peak	8.442	0.002	3354	1539	JP-4 (Tol-C14)	1939084	171
C36	6.641	0.000	5018	1098	CREOSOT (C8-C22)	1161962	186
C38	7.002	0.001	4337	1982			
C40	7.464	-0.001	3787	2493	BUNKERC (C10-C38)	1163233	130
=====							
AZDIESEL (C10-C22)			522451	33			
AZMOIL (C22-C32)			328719	51			
=====							

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	871101	50.3	111.8
Triacontane	461885	42.5	94.5

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 18:54

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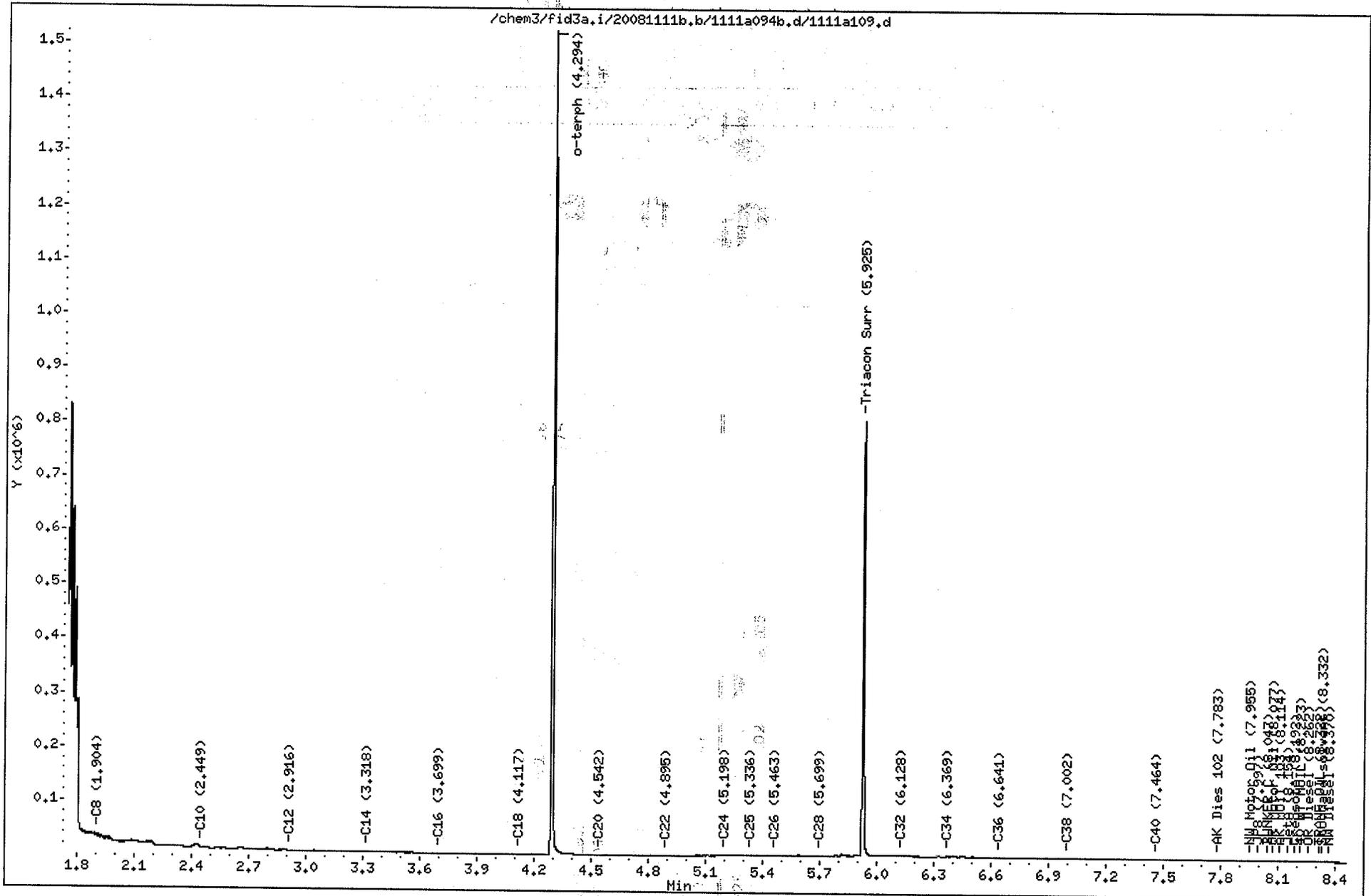
Sample Info: NY64D

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/12/08

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a110.d ARI ID: NY64E  
 Method: /chem3/fid3a.i/20081111b.b/1111a094b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 19:09  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/14/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.816	-0.001	40790	18792	GAS (Tol-C12)	1807819	28
C8	1.904	-0.006	32580	22479	DIESEL (C12-C24)	370398	24
C10	2.427	-0.010	15706	22421	M.OIL (C24-C38)	474886	68
C12	2.911	0.005	5054	906	AK-102 (C10-C25)	617733	33
C14	3.315	-0.003	3976	3612	AK-103 (C25-C36)	374264	69
C16	3.700	0.002	3009	2438	OR.DIES (C10-C28)	727380	37
C18	4.120	-0.001	2231	1700	OR.MOIL (C28-C40)	451179	48
C20	4.537	-0.002	2191	610	JET-A (C10-C18)	463255	28
C22	4.897	0.002	2371	1460	MIN.OIL (C24-C38)	474886	37
C24	5.197	0.001	3753	3577	MSPiRiT (Tol-C12)	1807819	114
C25	5.333	0.001	5884	8263			
C26	5.457	-0.003	3522	2364			
C28	5.691	-0.004	4673	6064			
C32	6.131	0.004	5136	4363			
C34	6.371	0.008	7676	12941			
Filter Peak	8.441	0.001	3360	1672	JP-4 (Tol-C14)	1908604	168
C36	6.645	0.004	4451	621	CREOSOT (C8-C22)	1135446	182
C38	7.005	0.003	3955	1573			
C40	7.472	0.007	3644	799	BUNKERC (C10-C38)	1081830	121
AZDIESEL (C10-C22)			486625	30			
AZMOIL (C22-C32)			276633	43			

Range Times: NW Diesel(2.956 - 5.247) NW Gas(1.766 - 2.956) NW M.Oil(5.247 - 7.051)  
 AK102(2.387 - 5.282) AK103(5.282 - 6.691) Jet A(2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	846280	48.9	108.6
Triacontane	449321	41.4	91.9

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081111b,b/1111a094b,d/1111a110.d

Date : 12-NOV-2008 19:09

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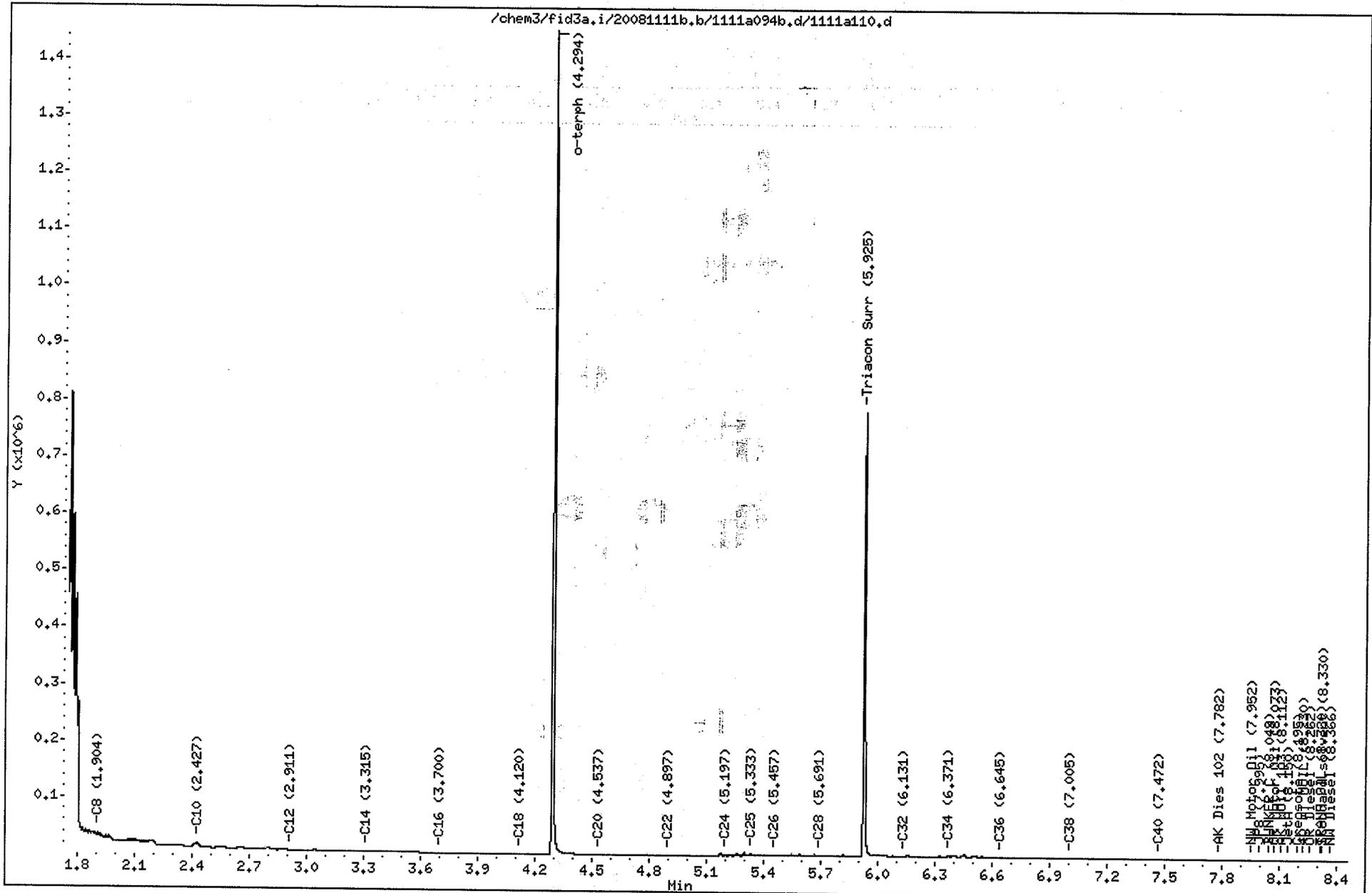
Sample Info: NY64E

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
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PL  
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Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a111.d ARI ID: NY64F  
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 Instrument: fid3a.i Injection: 12-NOV-2008 19:24  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/14/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.827	0.011	39019	25348	GAS (Tol-C12)	1856135	28
C8	1.905	-0.005	31941	22322	DIESEL (C12-C24)	1798340	119 <i>100%</i>
C10	2.427	-0.010	15494	4562	M.OIL (C24-C38)	5315490	756 <i>100%</i>
C12	2.915	0.009	5346	3764	AK-102 (C10-C25)	2152577	113
C14	3.320	0.002	4534	3410	AK-103 (C25-C36)	4914746	904
C16	3.693	-0.004	5540	5718	OR.DIES (C10-C28)	4099172	209
C18	4.119	-0.002	3691	1958	OR.MOIL (C28-C40)	3446974	368
C20	4.541	0.002	12156	10780	JET-A (C10-C18)	527123	31
C22	4.894	-0.001	32070	10611	MIN.OIL (C24-C38)	5315490	415
C24	5.191	-0.006	51717	28310	MSPRIT (Tol-C12)	1856135	117
C25	5.331	-0.002	61063	12005			
C26	5.458	-0.002	70173	31163			
C28	5.695	0.000	81583	12940			
C32	6.129	0.002	60066	8364			
C34	6.364	0.000	39046	6960			
Filter Peak	8.437	-0.003	3685	807	JP-4 (Tol-C14)	1971205	173
C36	6.642	0.000	22828	9365	CREOSOT (C8-C22)	1771038	284
C38	7.000	-0.002	10461	6991			
C40	7.464	-0.001	5367	747	BUNKERC (C10-C38)	7360878	824
AZDIESEL (C10-C22)			1151363	72			
AZMOIL (C22-C32)			4793970	745			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M:Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	899312	51.9	115.4
Triacontane	438963	40.4	89.8

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081111b,b/1111a094b.d/1111a111.d

Date : 12-NOV-2008 19:24

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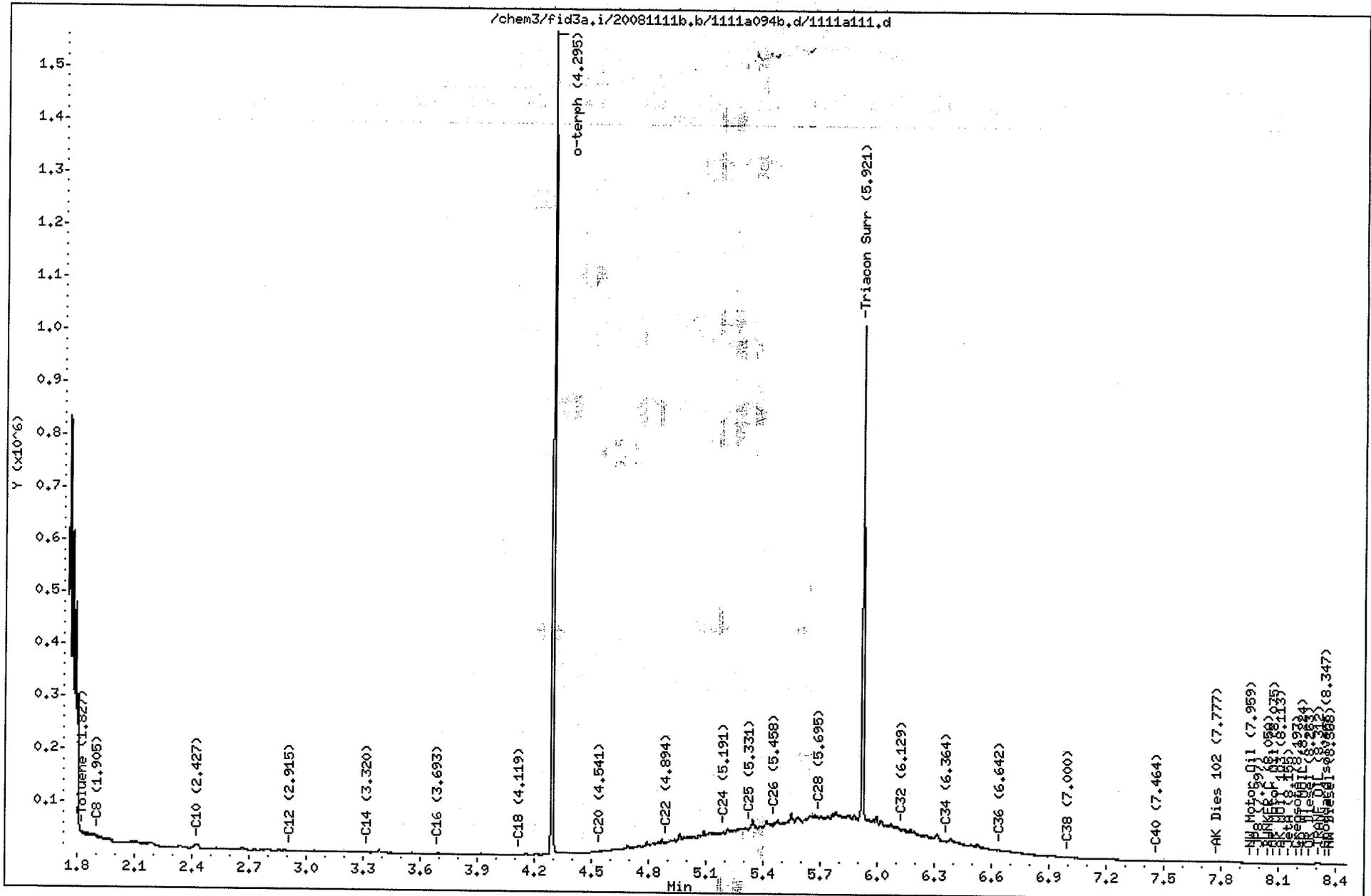
Sample Info: NY64F

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/12/08

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a112.d ARI ID: NY64G  
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 Operator: ms Dilution Factor: 1  
 Report Date: 11/14/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.827	0.010	38084	26041	GAS (Tol-C12)	1804319	28
C8	1.916	0.006	29822	21752	DIESEL (C12-C24)	393780	26
C10	2.425	-0.013	14862	31756	M.OIL (C24-C38)	664026	94
C12	2.914	0.008	4741	4371	AK-102 (C10-C25)	618049	33
C14	3.318	0.000	3532	1195	AK-103 (C25-C36)	548658	101
C16	3.697	0.000	2838	1342	OR.DIES (C10-C28)	781237	40
C18	4.121	-0.001	2101	1496	OR.MOIL (C28-C40)	603808	64
C20	4.540	0.001	2284	716	JET-A (C10-C18)	427873	25
C22	4.894	-0.001	3102	2024	MIN.OIL (C24-C38)	664026	52
C24	5.196	-0.001	4379	2650	MSPiRIT (Tol-C12)	1804319	114
C25	5.334	0.002	4984	1978			
C26	5.458	-0.002	5560	2739			
C28	5.699	0.004	7708	2130			
C32	6.128	0.000	8352	2820			
C34	6.362	-0.002	7284	5289			
Filter Peak	8.439	-0.001	3460	1723	JP-4 (Tol-C14)	1901229	167
C36	6.639	-0.002	5669	1243	CREOSOT (C8-C22)	1076040	173
C38	6.999	-0.002	4787	2567			
C40	7.467	0.002	3985	872	BUNKERC (C10-C38)	1270777	142
AZDIESEL (C10-C22)			485858	30			
AZMOIL (C22-C32)			445958	69			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	914825	52.8	117.4
Triacotane	495492	45.6	101.4

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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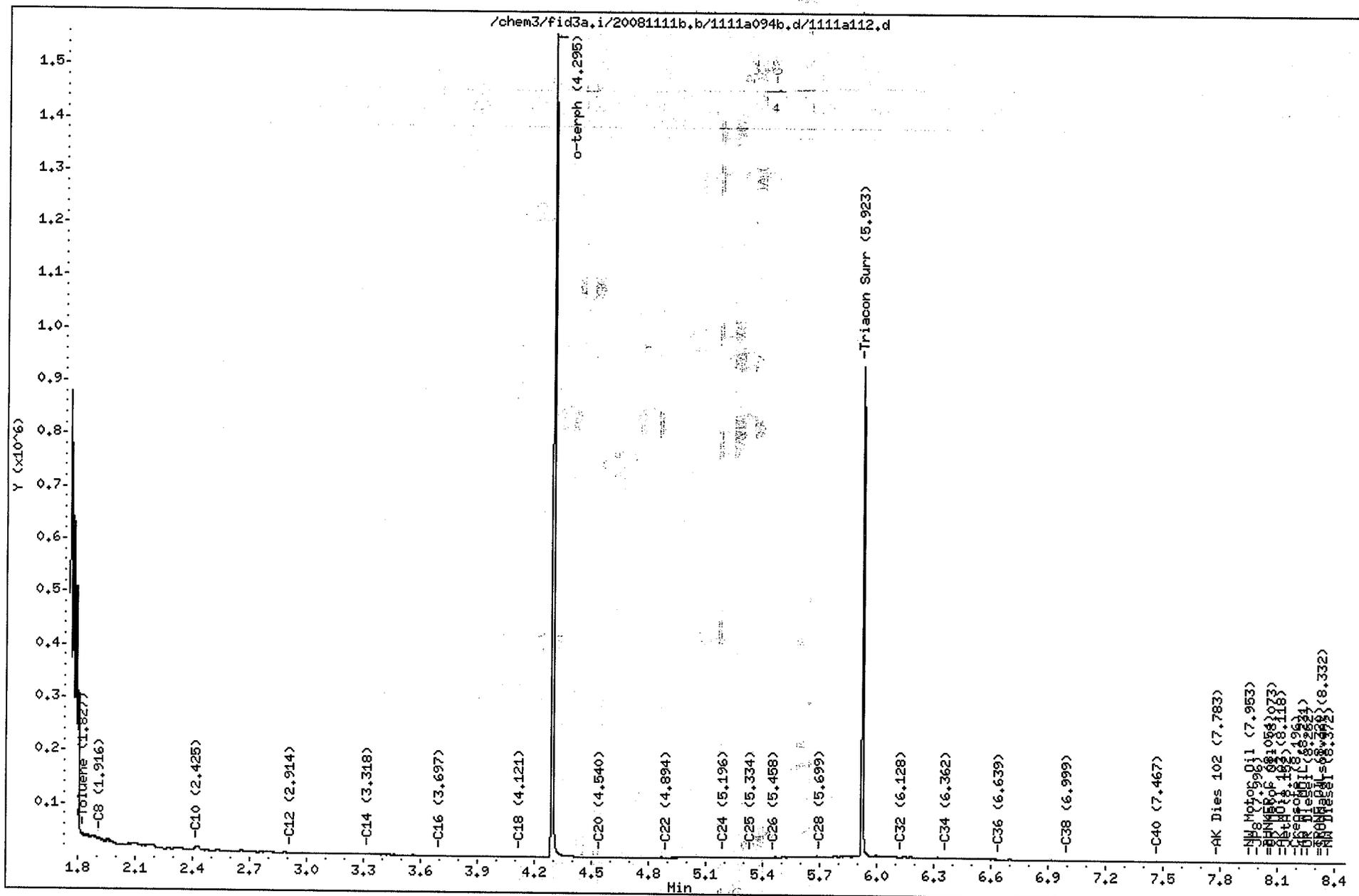
Sample Info: NY64G

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



PC  
11/14/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a113.d ARI ID: NY64GDUP  
Method: /chem3/fid3a.i/20081111b.b/1111a094b.d/ftphfid3a.mClient ID:  
Instrument: fid3a.i Injection: 12-NOV-2008 19:53  
Operator: ms Dilution Factor: 1  
Report Date: 11/14/2008  
Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.827	0.010	38483	27027	GAS (Tol-C12)	1743250	27
C8	1.916	0.006	29719	19497	DIESEL (C12-C24)	318669	21
C10	2.425	-0.012	14837	49718	M.OIL (C24-C38)	427018	61
C12	2.916	0.010	4724	4606	AK-102 (C10-C25)	529959	28
C14	3.317	-0.001	3461	2484	AK-103 (C25-C36)	345719	64
C16	3.698	0.001	2632	1405	OR.DIES (C10-C28)	619938	32
C18	4.125	0.004	1814	649	OR.MOIL (C28-C40)	426050	45
C20	4.536	-0.003	1847	774	JET-A (C10-C18)	408863	24
C22	4.898	0.004	1948	580	MIN.OIL (C24-C38)	427018	33
C24	5.199	0.002	2409	2008	MSPRIT (Tol-C12)	1743250	110
C25	5.331	-0.002	2679	742			
C26	5.463	0.003	3082	3527			
C28	5.698	0.002	4270	3978			
C32	6.129	0.002	5160	1957			
C34	6.364	0.001	5027	2299			
Filter Peak	8.439	-0.001	3222	1093	JP-4 (Tol-C14)	1834452	161
C36	6.643	0.001	4282	769	CREOSOT (C8-C22)	1002729	161
C38	7.001	0.000	3905	1241			
C40	7.465	0.000	3532	1197	BUNKERC (C10-C38)	951859	107
AZDIESEL (C10-C22)			421055	26			
AZMOIL (C22-C32)			247198	38			

Range Times: NW Diesel(2.956 - 5.247) NW Gas(1.766 - 2.956) NW M.Oil(5.247 - 7.051)  
AK102(2.387 - 5.282) AK103(5.282 - 6.691) Jet A(2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	859533	49.6	110.3
Triacontane	455583	41.9	93.2

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 19:53

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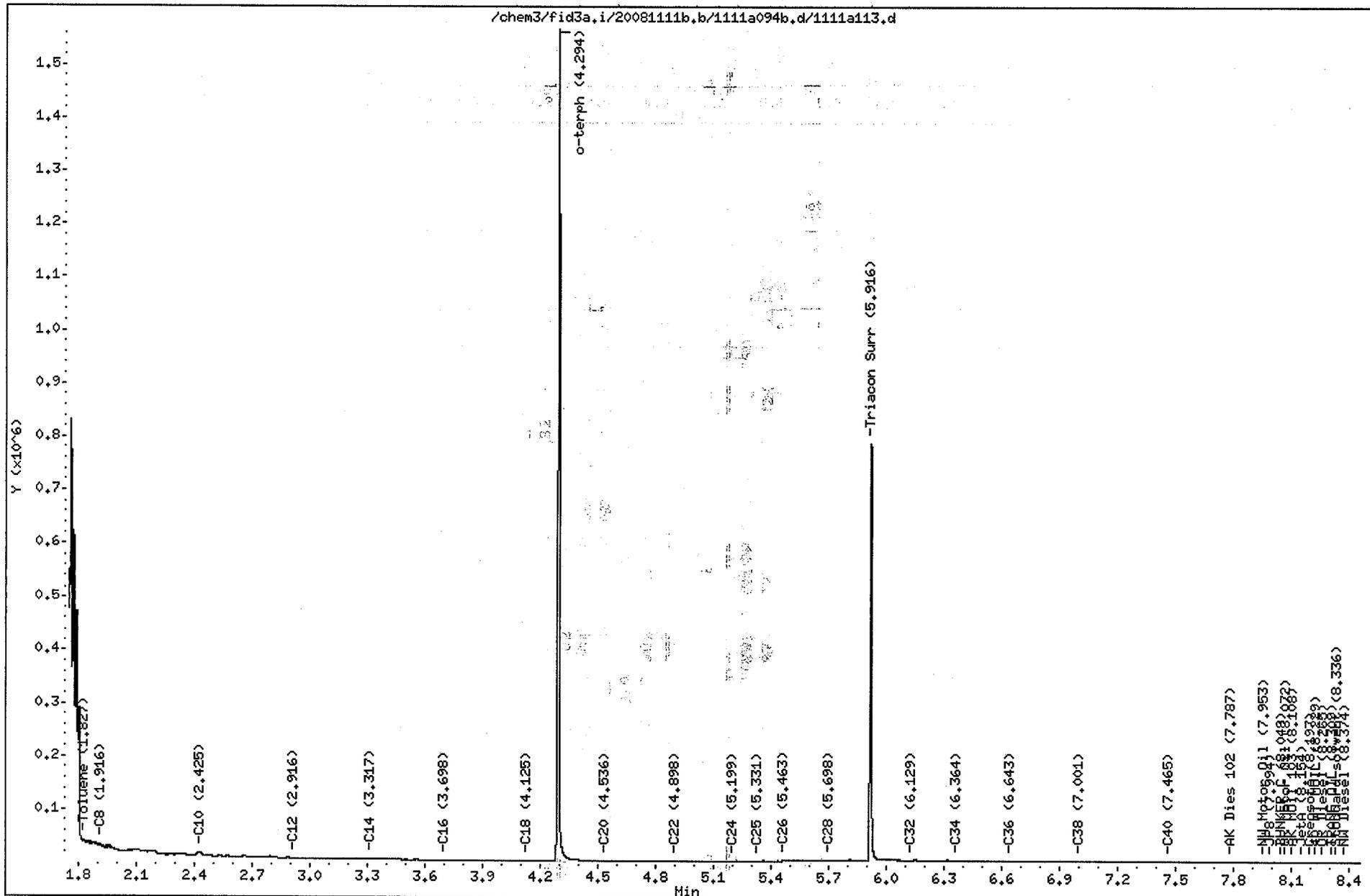
Instrument: fid3a.i

Sample Info: NY64GDUP

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



PC  
11/14/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081111b.b/1111a094b.d/1111a114.d ARI ID: NY64M  
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 Instrument: fid3a.i Injection: 12-NOV-2008 20:08  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/14/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.825	0.009	36089	22066	GAS (Tol-C12)	1337754	20
C8	1.913	0.003	29556	20053	DIESEL (C12-C24)	1383188	91 <i>PRC</i>
C10	2.425	-0.012	15015	26970	M.OIL (C24-C38)	4470598	636 <i>MO</i>
C12	2.914	0.008	5060	2986	AK-102 (C10-C25)	1663390	88
C14	3.321	0.003	4974	5977	AK-103 (C25-C36)	3969650	730
C16	3.699	0.001	5203	2958	OR.DIES (C10-C28)	2968161	151
C18	4.123	0.002	6117	2971	OR.MOIL (C28-C40)	3449669	368
C20	4.536	-0.003	10747	8725	JET-A (C10-C18)	577720	34
C22	4.897	0.002	19910	10778	MIN.OIL (C24-C38)	4470598	349
C24	5.200	0.003	30925	4298	MSPiRIT (Tol-C12)	1337754	85
C25	5.328	-0.004	37441	15580			
C26	5.456	-0.003	47096	48554			
C28	5.697	0.002	60432	21132			
C32	6.125	-0.002	54564	30185			
C34	6.362	-0.001	39557	4725			
Filter Peak	8.440	0.000	7169	2795	JP-4 (Tol-C14)	1457504	128
C36	6.640	-0.001	27591	14063	CREOSOT (C8-C22)	1632699	262
C38	7.002	0.001	17413	11584			
C40	7.466	0.001	10887	3010	BUNKERC (C10-C38)	6071428	679
AZDIESEL (C10-C22)			1040657	65			
AZMOIL (C22-C32)			3464033	538			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	427952	24.7	54.9
Triacontane	186888	17.2	38.2

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 20:08

Client ID:

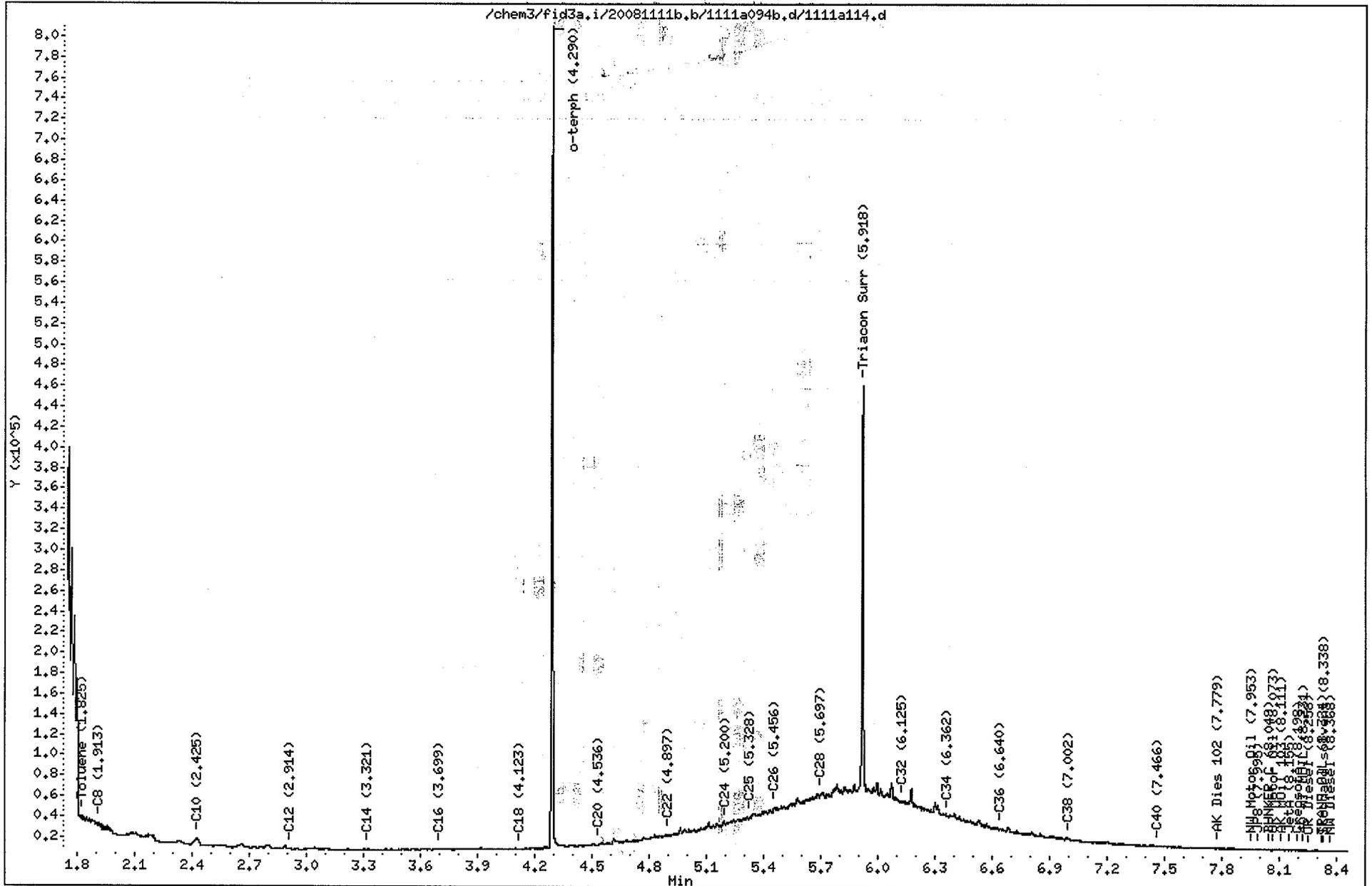
Sample Info: NY64M

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

<u>Client ID</u>	<u>O-TER TOT OUT</u>	
TDP26-8-081106	108%	0
TDP27-11-081106	110%	0
TDP28-11-081106	115%	0
TDP29-11-081106	112%	0
TDP30-11-081106	109%	0
TDP31-12-081106	115%	0
111008MB	106%	0
TDP32-11-081106	117%	0
TDP32-11-081106 DP	110%	0
TH-DRUM1-SOIL	54.9%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(68-122)

(50-150)

Prep Method: SW3550B  
Log Number Range: 08-30261 to 08-30273

TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil  
Date Received: 11/06/08

ARI Job: NY64  
Project: BOEING THOMPSON  
023173

ARI ID	Client ID	Sample Amt	Final Vol	Basis	Prep Date
08-30261-NY64A	TDP26-8-081106	8.61 g	5.00 mL	D	11/10/08
08-30262-NY64B	TDP27-11-081106	9.32 g	5.00 mL	D	11/10/08
08-30263-NY64C	TDP28-11-081106	8.02 g	5.00 mL	D	11/10/08
08-30264-NY64D	TDP29-11-081106	8.41 g	5.00 mL	D	11/10/08
08-30265-NY64E	TDP30-11-081106	6.58 g	5.00 mL	D	11/10/08
08-30266-NY64F	TDP31-12-081106	8.39 g	5.00 mL	D	11/10/08
08-30267-111008MB	Method Blank	10.0 g	5.00 mL	-	11/10/08
08-30267-NY64G	TDP32-11-081106	9.57 g	5.00 mL	D	11/10/08
08-30267-NY64GDP	TDP32-11-081106	9.60 g	5.00 mL	D	11/10/08
08-30273-NY64M	TH-DRUM1-SOIL	8.70 g	5.00 mL	D	11/10/08

Basis: D=Dry Weight W=As Received  
HCID Extraction Report

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID  
Page 1 of 1  
Matrix: Water

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

Data Release Authorized:  
Reported: 11/14/08 

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-111008 08-30268	Method Blank	11/10/08	11/12/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	77.7%
NY64H 08-30268	TDP26-GW-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	95.3%
NY64I 08-30269	TDP28-GW-081106 HC ID: ---	11/10/08	11/12/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	85.4%
NY64J 08-30270	TDP29-GW-081106 HC ID: DRO/RRO	11/10/08	11/12/08	1.0	Gas	< 0.25 U
					Diesel	> 0.63
					Oil	> 0.63
					o-Terphenyl	75.8%
NY64K 08-30271	TDP31-GW-081106 HC ID: MOTOR OIL	11/10/08	11/12/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	> 0.63
					o-Terphenyl	83.1%
NY64L 08-30272	TH-SUMP-081106 HC ID: DRO/RRO	11/10/08	11/12/08	1.0	Gas	< 1.0 U
					Diesel	> 2.5
					Oil	> 2.5
					o-Terphenyl	NR
NY64N 08-30274	TH-DRUM2-WATER HC ID: ---	11/10/08	11/12/08	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	87.1%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.  
Diesel value based on the total peaks in the range from C12 to C24.  
Oil value based on the total peaks in the range from C24 to C38.

Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a120.d ARI ID: NY64MBW1  
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 Instrument: fid3a.i Injection: 12-NOV-2008 21:37  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.814	-0.002	34594	23578	GAS (Tol-C12)	982327	1537
C8	1.913	0.003	28961	20707	DIESEL (C12-C24)	283643	19
C10	2.430	-0.007	14041	17889	M.OIL (C24-C38)	334465	48
C12	2.912	0.006	4558	5058	AK-102 (C10-C25)	493341	26
C14	3.319	0.001	3506	977	AK-103 (C25-C36)	247492	46
C16	3.700	0.003	2542	3038	OR.DIES (C10-C28)	551368	28
C18	4.123	0.002	1683	1884	OR.MOIL (C28-C40)	363820	39
C20	4.541	0.002	1528	779	JET-A (C10-C18)	402442	24
C22	4.905	0.010	1970	1950	MIN.OIL (C24-C38)	334465	26
C24	5.188	-0.009	1594	1534	MSPiRIT (Tol-C12)	982327	62
C25	5.340	0.008	1812	1429			
C26	5.461	0.001	1839	474			
C28	5.691	-0.005	2763	3065			
C32	6.129	0.002	3789	1738			
C34	6.360	-0.003	4284	2299			
Filter Peak	8.444	0.004	3289	2347	JP-4 (Tol-C14)	1073993	95
C36	6.635	-0.007	3798	1209	CREOSOT (C8-C22)	1005962	161
C38	7.009	0.008	3865	2136			
C40	7.464	-0.001	3476	623	BUNKERC (C10-C38)	824778	92
AZDIESEL (C10-C22)			405737	25			
AZMOIL (C22-C32)			164957	26			

Range Times: NW Diesel(2.956 - 5.247) NW Gas(1.766 - 2.956) NW M.Oil(5.247 - 7.051)  
 AK102(2.387 - 5.282) AK103(5.282 - 6.691) Jet A(2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	605873	35.0	77.7
Triacontane	320892	29.5	65.7

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>26501.1-65383.2</del> 1213	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

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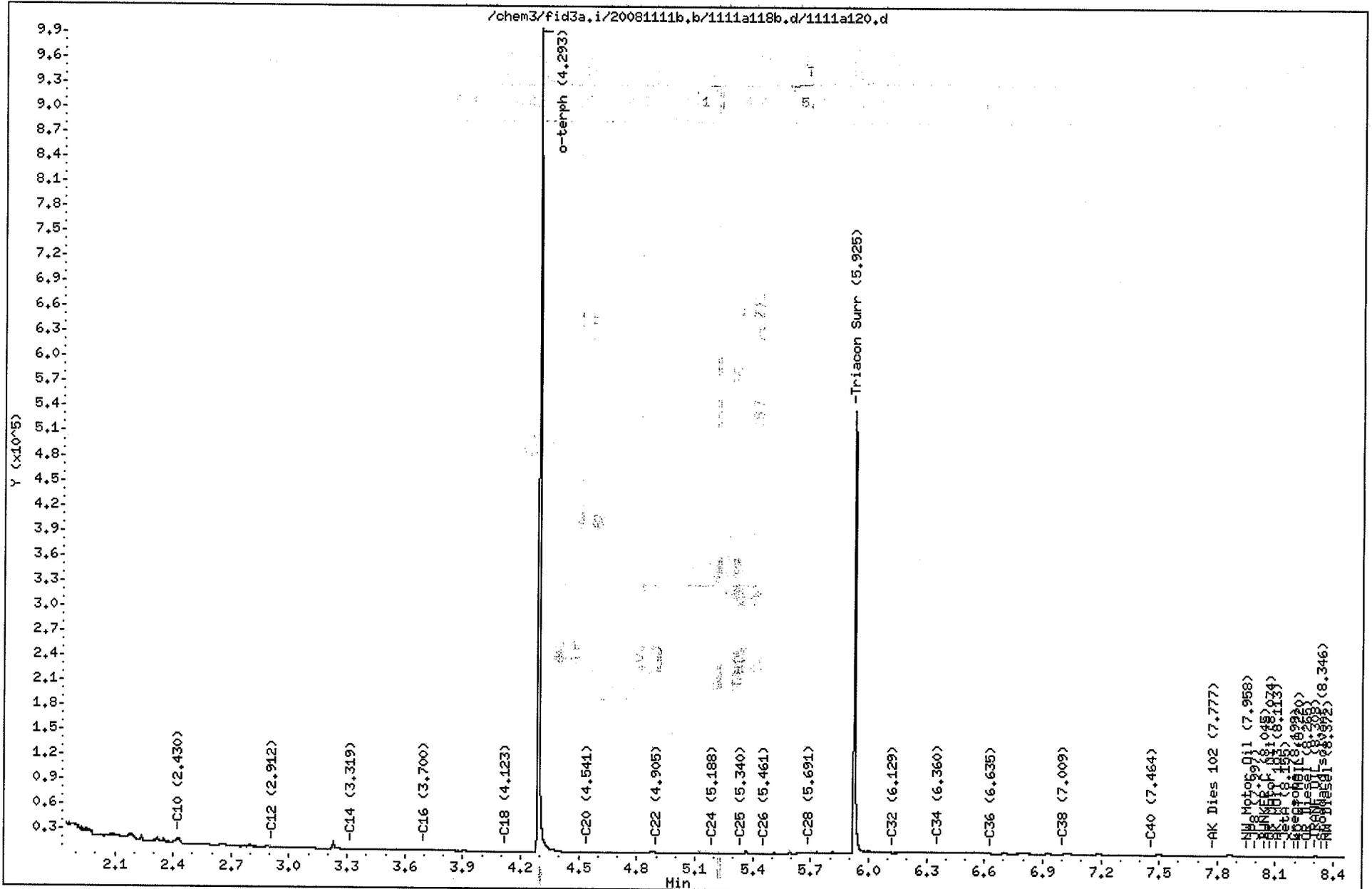
Instrument: fid3a.i

Sample Info: NY64MBW1

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PL  
11/14/08

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a123.d ARI ID: NY64H  
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 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.815	-0.002	35567	22096	GAS (Tol-C12)	1072873	40-16
C8	1.913	0.003	30217	20559	DIESEL (C12-C24)	1098427	73 DND
C10	2.447	0.010	8965	2319	M.OIL (C24-C38)	566692	81
C12	2.902	-0.004	6279	4843	AK-102 (C10-C25)	1377924	73
C14	3.318	0.000	5770	2088	AK-103 (C25-C36)	484267	89
C16	3.695	-0.002	7025	7328	OR.DIES (C10-C28)	1598655	82
C18	4.119	-0.003	7964	8492	OR.MOIL (C28-C40)	412598	44
C20	4.536	-0.003	9749	4410	JET-A (C10-C18)	754665	45
C22	4.896	0.002	10998	2173	MIN.OIL (C24-C38)	566692	44
C24	5.192	-0.005	11053	13144	MSPRIT (Tol-C12)	1072873	68
C25	5.334	0.002	9639	4668			
C26	5.455	-0.005	8685	5624			
C28	5.692	-0.003	7207	7656			
C32	6.140	0.012	5981	11536			
C34	6.376	0.013	6936	17960			
Filter Peak	8.445	0.005	3019	601	JP-4 (Tol-C14)	1211332	107
C36	6.645	-0.003	4660	6921	CREOSOT (C8-C22)	1759994	282
C38	6.995	-0.006	3556	709			
C40	7.475	0.010	3751	7170	BUNKERC (C10-C38)	1925214	215
AZDIESEL (C10-C22)			1103392	69			
AZMOIL (C22-C32)			537041	83			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	742968	42.9	95.3
Triacontane	360894	33.2	73.8

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>26501.465383.2</del>	<del>12-13-NOV-2008</del>
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 22:21

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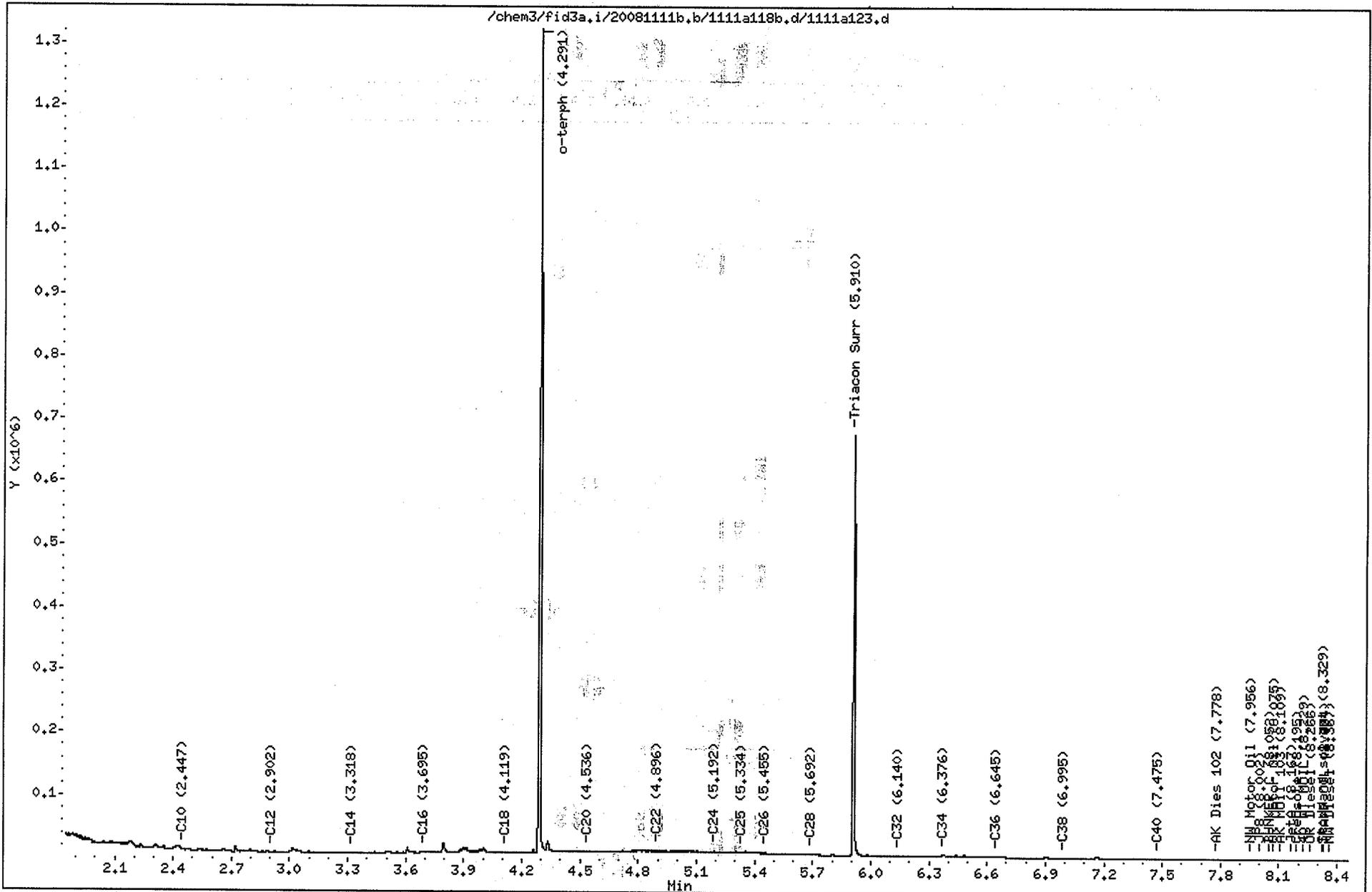
Sample Info: NY64H

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

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 Instrument: fid3a.i Injection: 12-NOV-2008 22:35  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.813	-0.004	34858	19597	GAS (Tol-C12)	981380	1537
C8	1.912	0.002	29039	19123	DIESEL (C12-C24)	570392	38
C10	2.450	0.013	8615	4422	M.OIL (C24-C38)	393154	56
C12	2.915	0.009	5025	3815	AK-102 (C10-C25)	806730	42
C14	3.320	0.002	4405	1137	AK-103 (C25-C36)	319186	59
C16	3.696	-0.002	4545	3759	OR.DIES (C10-C28)	911140	46
C18	4.119	-0.002	4093	2646	OR.MOIL (C28-C40)	370952	40
C20	4.540	0.000	4021	2932	JET-A (C10-C18)	557014	33
C22	4.893	-0.002	4045	2400	MIN.OIL (C24-C38)	393154	31
C24	5.194	-0.003	4031	2383	MSPRIT (Tol-C12)	981380	62
C25	5.332	-0.001	3902	2332			
C26	5.457	-0.003	3855	2501			
C28	5.688	-0.007	4115	4748			
C32	6.133	0.005	5999	8647			
C34	6.361	-0.002	4556	2001			
Filter Peak	8.437	-0.003	3083	1227	JP-4 (Tol-C14)	1094865	96
C36	6.642	0.000	3899	1242	CREOSOT (C8-C22)	1291061	207
C38	7.001	-0.001	3554	707			
C40	7.466	0.001	4061	14476	BUNKERC (C10-C38)	1193524	134
AZDIESEL (C10-C22)			669559	42			
AZMOIL (C22-C32)			276760	43			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	666000	38.5	85.5
Triacontane	333498	30.7	68.2

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>26501.165383.212</del>	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 22:35

Client ID:

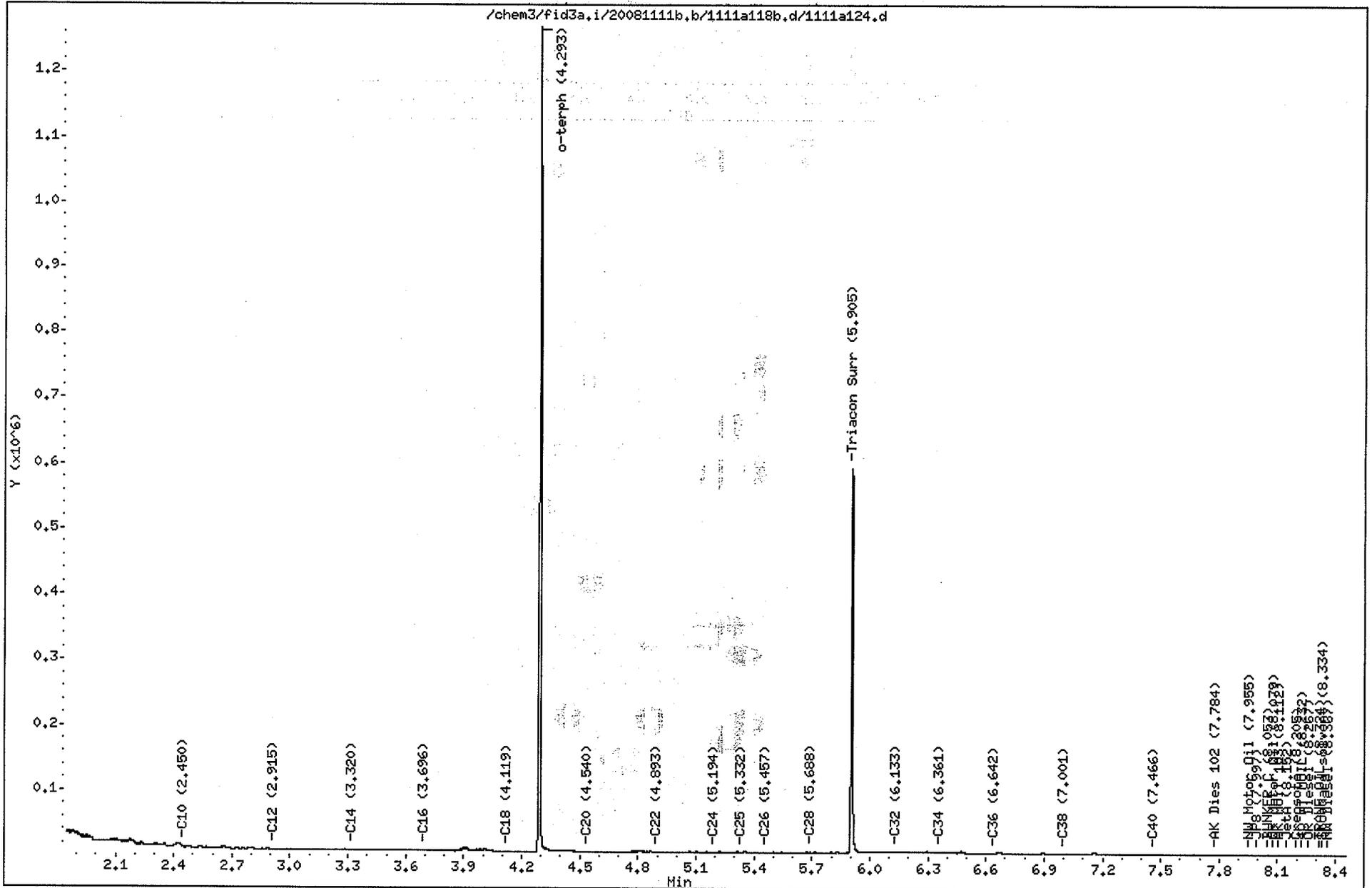
Sample Info: NY64I

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a125.d ARI ID: NY64J  
 Method: /chem3/fid3a.i/20081111b.b/1111a118b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 22:50  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.817	0.001	37225	25678	GAS (Tol-C12)	1472652	2356
C8	1.908	-0.002	30137	18455	DIESEL (C12-C24)	8566076	566 DRD
C10	2.427	-0.010	21943	21908	M.OIL (C24-C38)	5129055	730 DRD
C12	2.890	-0.016	21051	33718	AK-102 (C10-C25)	9238248	487
C14	3.317	-0.001	33236	26704	AK-103 (C25-C36)	4787975	880
C16	3.694	-0.004	139169	107248	OR.DIES (C10-C28)	11559742	589
C18	4.118	-0.003	324206	232750	OR.MOIL (C28-C40)	2956728	316
C20	4.536	-0.004	370293	281587	JET-A (C10-C18)	3634003	216
C22	4.891	-0.003	223785	182067	MIN.OIL (C24-C38)	5129055	400
C24	5.193	-0.004	157357	116992	MSPiRIT (Tol-C12)	1472652	93
C25	5.329	-0.003	132331	143437			
C26	5.456	-0.003	122640	130796			
C28	5.692	-0.004	121358	153404			
C32	6.121	-0.006	62418	82152			
C34	6.371	0.008	35602	52287			
Filter Peak	8.441	0.001	4780	761	JP-4 (Tol-C14)	2076506	183
C36	6.645	0.004	18670	9998	CREOSOT (C8-C22)	8386403	1345
C38	7.001	-0.001	10657	2544			
C40	7.463	-0.002	7231	2421	BUNKERC (C10-C38)	14299491	1600
AZDIESEL (C10-C22)			7609892	474			
AZMOIL (C22-C32)			5431200	844			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	591168	34.1	75.8
Triacontane	281439	25.9	57.6

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>26501.1</del> 65383.2	<del>12-13</del> NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a125.d

Date : 12-NOV-2008 22:50

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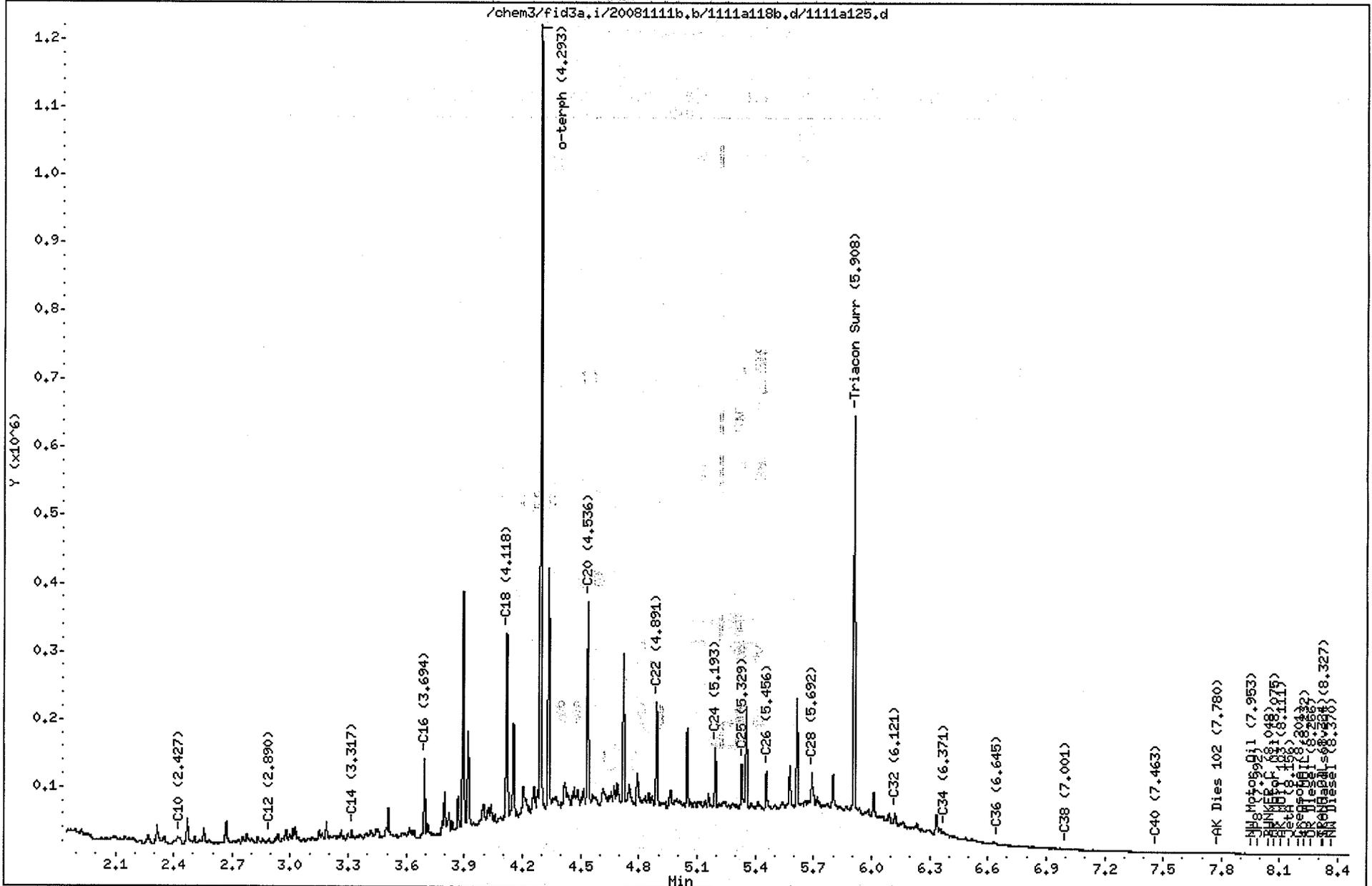
Instrument: fid3a.i

Sample Info: NY64J

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
4/14/08

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a126.d ARI ID: NY64K  
 Method: /chem3/fid3a.i/20081111b.b/1111a118b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 23:05  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.814	-0.002	33446	12518	GAS (Tol-C12)	1036806	1639
C8	1.914	0.004	27988	18150	DIESEL (C12-C24)	3963253	262
C10	2.432	-0.005	14085	17037	M.OIL (C24-C38)	10751945	1530
C12	2.922	0.016	8312	10935	AK-102 (C10-C25)	4524559	238
C14	3.316	-0.002	12594	11500	AK-103 (C25-C36)	10040186	1846
C16	3.690	-0.007	17271	17188	OR.DIES (C10-C28)	8787301	448
C18	4.119	-0.002	11197	13556	OR.MOIL (C28-C40)	6452279	689
C20	4.539	0.000	25336	29646	JET-A (C10-C18)	1096251	65
C22	4.895	0.001	64528	15213	MIN.OIL (C24-C38)	10751945	838
C24	5.198	0.002	104310	12449	MSPRIT (Tol-C12)	1036806	66
C25	5.326	-0.006	129733	46121			
C26	5.458	-0.002	153686	51427			
C28	5.696	0.000	180978	89324			
C32	6.127	-0.001	120997	86378			
C34	6.364	0.001	82811	14694			
Filter Peak	8.442	0.002	4220	2348	JP-4 (Tol-C14)	1277157	112
C36	6.641	0.000	37046	14546	CREOSOT (C8-C22)	3082987	495
C38	7.003	0.001	15065	4981			
C40	7.470	0.005	7270	6057	BUNKERC (C10-C38)	14995042	1678
AZDIESEL (C10-C22)			2464269	153			
AZMOIL (C22-C32)			10168584	1579			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	647557	37.4	83.1
Triacotane	285922	26.3	58.5

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>26301.1-65383.2</del> 26301.1	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR M.Oil	19612.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a,i/20081111b,b/1111a118b,d/1111a126,d

Date : 12-NOV-2008 23:05

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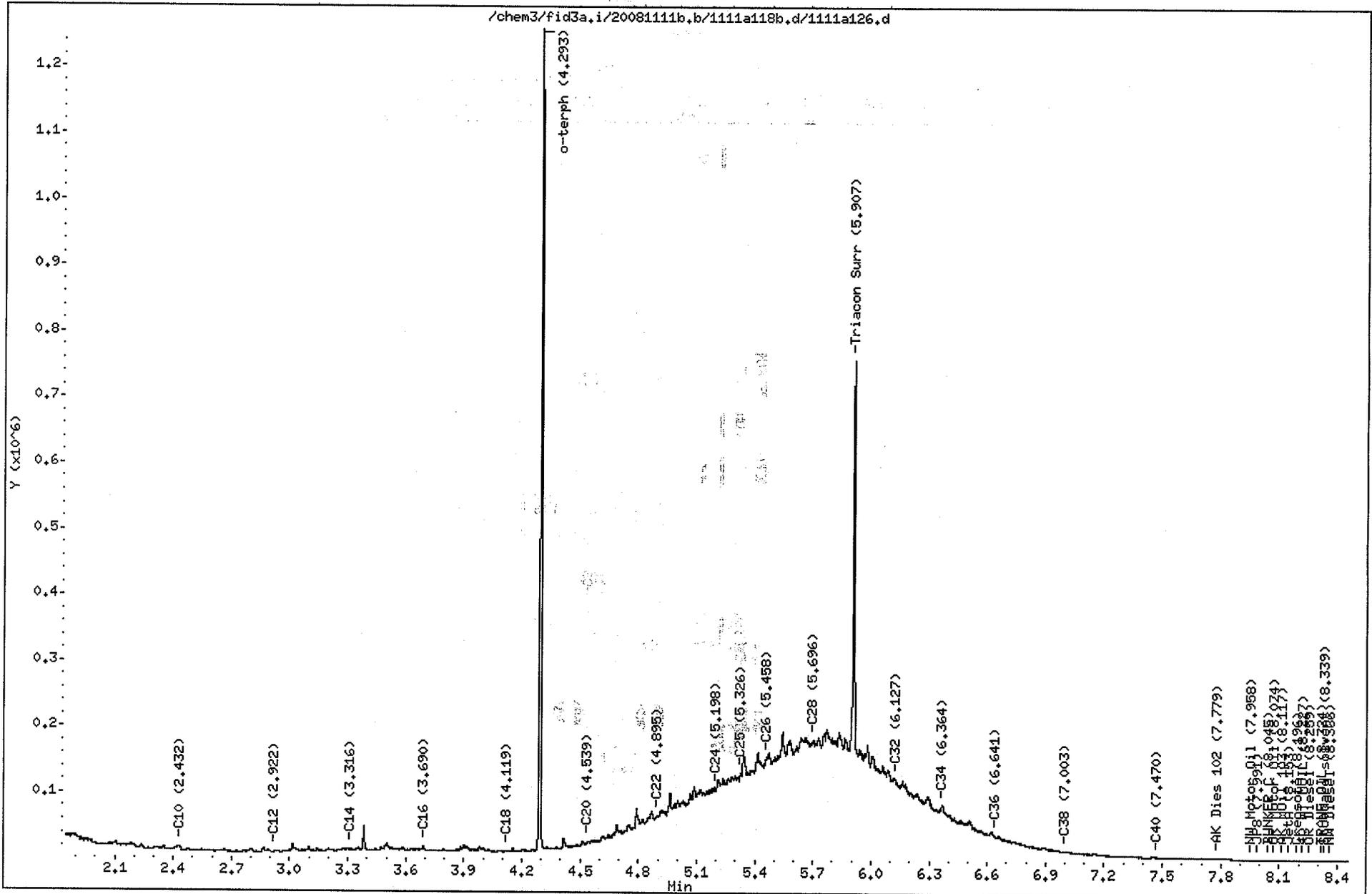
Sample Info: NY64K

Column phase: RTX-1

Instrument: fid3a,i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a127.d ARI ID: NY64L  
 Method: /chem3/fid3a.i/20081111b.b/1111a118b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 23:20  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

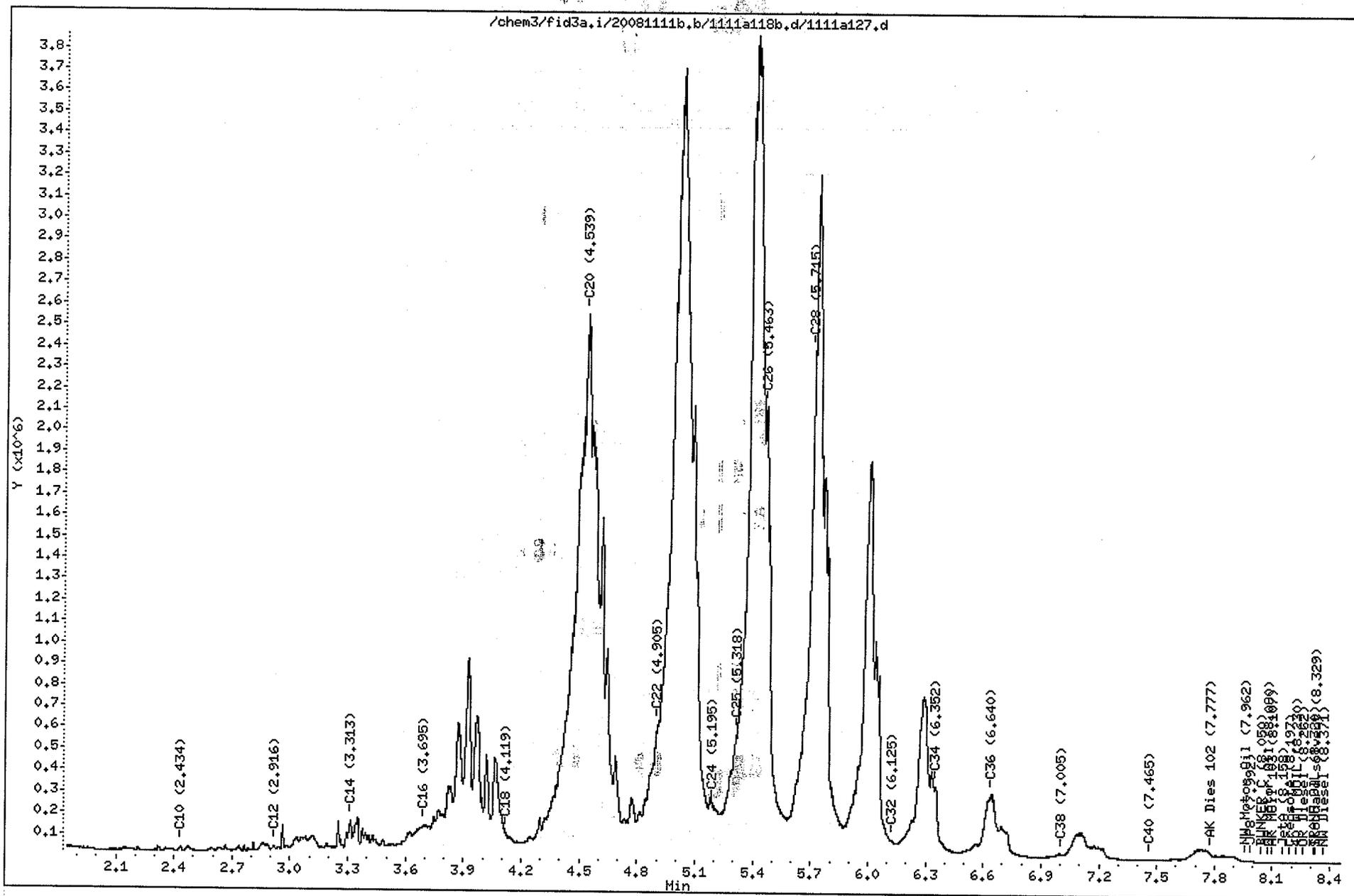
Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.819	0.003	33938	20310	GAS (Tol-C12)	1760086	2766
C8	1.908	-0.002	29849	21048	DIESEL (C12-C24)	61429865	4057 DPO
C10	2.434	-0.003	37825	38603	M.OIL (C24-C38)	52354605	7448 RRO
C12	2.916	0.010	42469	57973	AK-102 (C10-C25)	62300468	3282
C14	3.313	-0.005	166985	169311	AK-103 (C25-C36)	51422682	9454
C16	3.695	-0.003	145202	81808	OR.DIES (C10-C28)	96654112	4928
C18	4.119	-0.002	114549	101342	OR.MOIL (C28-C40)	19210111	2051
C20	4.539	-0.001	2555047	2453320	JET-A (C10-C18)	11650390	692
C22	4.905	0.010	623767	683950	MIN.OIL (C24-C38)	52354605	4083
C24	5.195	-0.002	248074	116074	MSPRIT (Tol-C12)	1760086	111
C25	5.318	-0.015	587160	104473			
C26	5.463	0.003	2130905	2424066			
C28	5.715	0.019	2394831	4411101			
C32	6.125	-0.003	93207	102017			
C34	6.352	-0.012	345450	403749			
Filter Peak	8.441	0.001	13054	9672	JP-4 (Tol-C14)	3503932	308
C36	6.640	-0.002	308766	54598	CREOSOT (C8-C22)	39355076	6313
C38	7.005	0.004	38056	20021			
C40	7.465	-0.001	15901	9463	BUNKERC (C10-C38)	114655072	12830
AZDIESEL (C10-C22)			38525098	2399			
AZMOIL (C22-C32)			69708968	10828			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	0	0.0	0.0
Triacontane	0	0.0	0.0

MR

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	265383.2	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a129.d ARI ID: NY64N  
 Method: /chem3/fid3a.i/20081111b.b/1111a118b.d/ftphfid3a.m Client ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 23:49  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.815	-0.002	34411	24032	GAS (Tol-C12)	1738137	<del>2766</del>
C8	1.914	0.003	28662	19177	DIESEL (C12-C24)	3788152	250 OPC
C10	2.451	0.014	11274	6768	M.OIL (C24-C38)	1888091	269 NRC
C12	2.903	-0.003	20681	15324	AK-102 (C10-C25)	4769368	251
C14	3.316	-0.002	49624	36939	AK-103 (C25-C36)	1667259	307
C16	3.694	-0.004	55873	43447	OR.DIES (C10-C28)	5592688	285
C18	4.118	-0.004	36529	36497	OR.MOIL (C28-C40)	1175349	125
C20	4.534	-0.005	23290	15188	JET-A (C10-C18)	3044327	181
C22	4.897	0.002	23672	4667	MIN.OIL (C24-C38)	1888091	147
C24	5.192	-0.005	26885	26307	MSPiRIT (Tol-C12)	1738137	110
C25	5.328	-0.005	29653	36490			
C26	5.455	-0.005	31469	45257			
C28	5.689	-0.007	36206	44416			
C32	6.118	-0.009	21890	28628			
C34	6.364	0.001	14234	3111			
Filter Peak	8.441	0.001	5558	2433	JP-4 (Tol-C14)	2345275	206
C36	6.650	0.009	9576	1899	CREOSOT (C8-C22)	4870098	781
C38	7.001	-0.001	7650	2591			
C40	7.478	0.013	6103	2542	BUNKERC (C10-C38)	6607032	739
AZDIESEL (C10-C22)			3990123	248			
AZMOIL (C22-C32)			1821008	283			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	679038	39.2	87.1
Triacotane	314691	29.0	64.4

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>26501.65383</del> 2712	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 12-NOV-2008 23:49

Client ID:

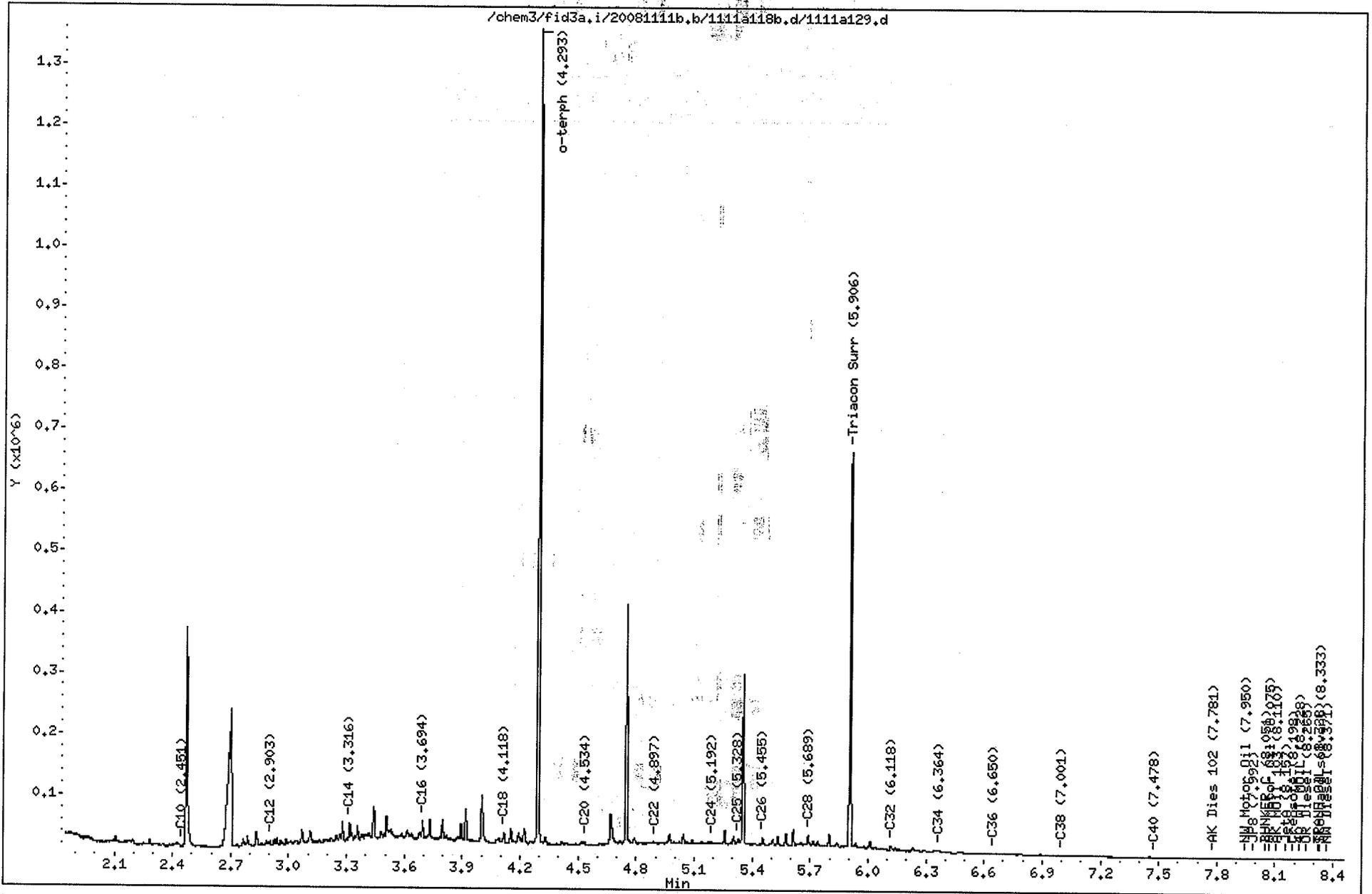
Sample Info: NY64N

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-111008	77.7%	0
LCS-111008	96.1%	0
LCSD-111008	92.6%	0
TDP26-GW-081106	95.3%	0
TDP28-GW-081106	85.4%	0
TDP29-GW-081106	75.8%	0
TDP31-GW-081106	83.1%	0
TH-SUMP-081106	NR	0
TH-DRUM2-WATER	87.1%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 08-30268 to 08-30274



Analytical Resources Inc.  
TPH Quantitation Report

PC  
11/14/08

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a121.d ARI ID: NY64LCSW1  
Method: /chem3/fid3a.i/20081111b.b/1111a118b.d/ftphfid3a.m Client ID:  
Instrument: fid3a.i Injection: 12-NOV-2008 21:51  
Operator: ms Dilution Factor: 1  
Report Date: 11/13/2008  
Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.815	-0.001	46130	28937	GAS (Tol-C12)	3892678	14760
C8	1.910	0.000	36224	32157	DIESEL (C12-C24)	17410551	1150
C10	2.436	-0.002	189491	144877	M.OIL (C24-C38)	596449	85
C12	2.905	-0.001	412031	262191	AK-102 (C10-C25)	20115861	1060
C14	3.316	-0.002	734173	356271	AK-103 (C25-C36)	489485	90
C16	3.695	-0.002	770179	573275	OR.DIES (C10-C28)	20396602	1040
C18	4.121	0.000	570623	404605	OR.MOIL (C28-C40)	383612	41
C20	4.536	-0.003	386165	302806	JET-A (C10-C18)	14911705	886
C22	4.891	-0.003	166867	125616	MIN.OIL (C24-C38)	596449	47
C24	5.194	-0.002	66479	48478	MSPIRIT (Tol-C12)	3892678	246
C25	5.332	0.000	36436	40544			
C26	5.461	0.001	20232	23486			
C28	5.697	0.002	6677	7234			
C32	6.123	-0.004	4124	2218			
C34	6.366	0.003	4500	2151			
Filter Peak	8.445	0.005	3208	1345	JP-4 (Tol-C14)	7692592	677
C36	6.642	0.000	3804	1215	CREOSOT (C8-C22)	20420645	3275
C38	7.001	0.000	3792	1208			
C40	7.480	0.015	4856	9269	BUNKERC (C10-C38)	20694596	2316
AZDIESEL (C10-C22)			19126914	1191			
AZMOIL (C22-C32)			1023608	159			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	749232	43.3	96.1
Triacontane	378009	34.8	77.3

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>2650.1</del> <del>65382.2</del> <del>1213</del>	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a121.d

Date : 12-NOV-2008 21:51

Client ID:

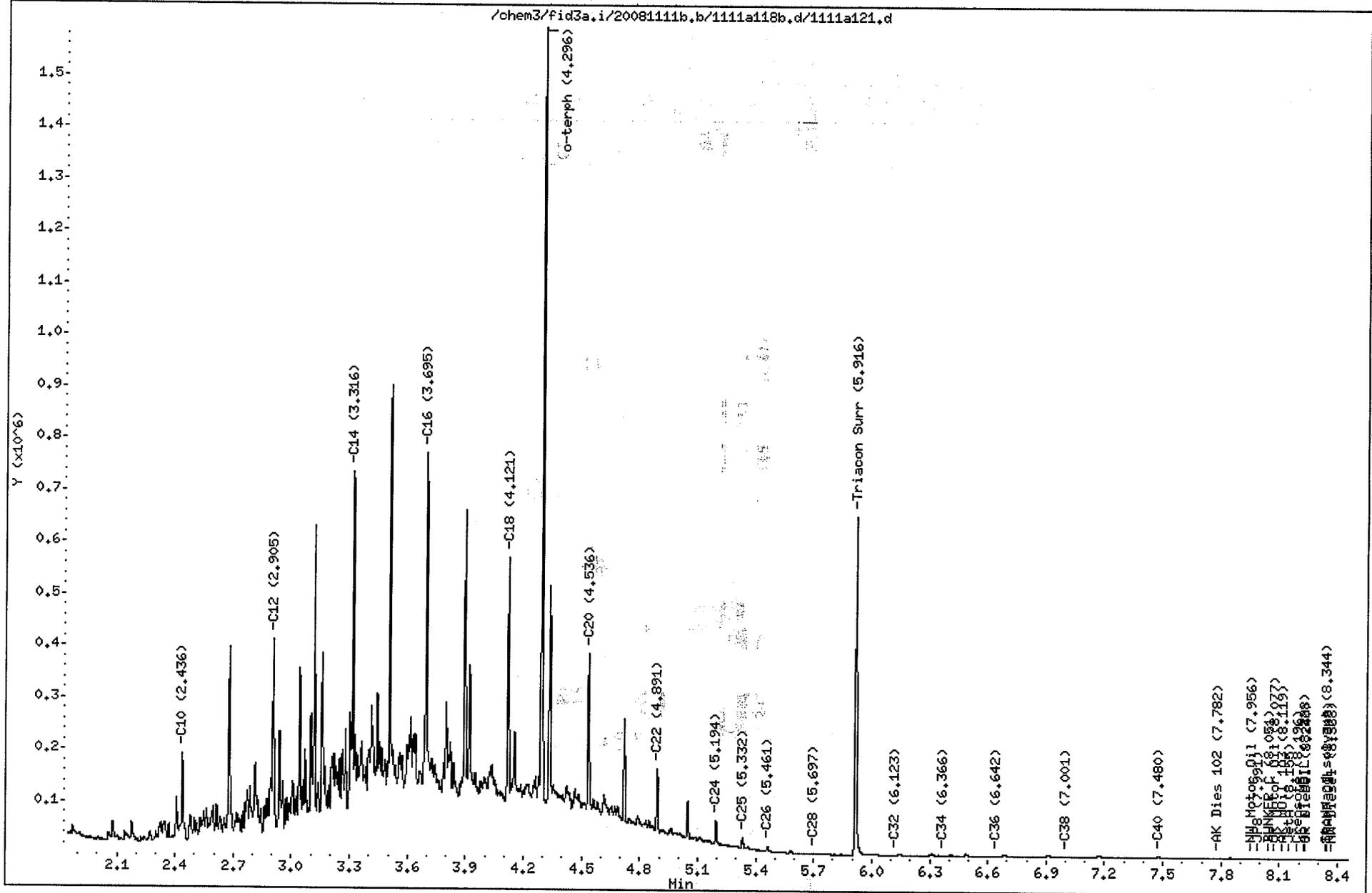
Sample Info: NY64LCSW1

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



PC  
11/14/08

Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081111b.b/1111a118b.d/1111a122.d ARI ID: NY64LCSDW1  
 Method: /chem3/fid3a.i/20081111b.b/1111a118b.d/ftphfid3a.mClient ID:  
 Instrument: fid3a.i Injection: 12-NOV-2008 22:06  
 Operator: ms Dilution Factor: 1  
 Report Date: 11/13/2008  
 Macro: FID:3A111308

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.816	0.000	46660	29445	GAS (Tol-C12)	3906023	<del>147.60</del>
C8	1.911	0.001	36406	30204	DIESEL (C12-C24)	17355329	1146
C10	2.436	-0.002	188123	114386	M.OIL (C24-C38)	567207	81
C12	2.904	-0.002	470891	259563	AK-102 (C10-C25)	20075765	1057
C14	3.316	-0.002	758610	338549	AK-103 (C25-C36)	478065	88
C16	3.696	-0.002	775510	651950	OR.DIES (C10-C28)	20339128	1037
C18	4.120	-0.001	514423	411994	OR.MOIL (C28-C40)	375825	40
C20	4.535	-0.004	374475	307347	JET-A (C10-C18)	14842139	882
C22	4.889	-0.005	165934	122000	MIN.OIL (C24-C38)	567207	44
C24	5.192	-0.005	63570	54248	MSPiRIT (Tol-C12)	3906023	247
C25	5.328	-0.004	35390	38980			
C26	5.457	-0.003	19729	20493			
C28	5.692	-0.003	6903	7271			
C32	6.126	-0.002	3981	635			
C34	6.358	-0.005	4516	4839			
Filter Peak	8.437	-0.003	3201	1337	JP-4 (Tol-C14)	7627306	671
C36	6.643	0.001	3790	831	CREOSOT (C8-C22)	20420334	3275
C38	7.002	0.000	3656	1017			
C40	7.474	0.009	4355	16613	BUNKERC (C10-C38)	20623203	2308
AZDIESEL (C10-C22)			19112226	1190			
AZMOIL (C22-C32)			974023	151			

Range Times: NW Diesel (2.956 - 5.247) NW Gas (1.766 - 2.956) NW M.Oil (5.247 - 7.051)  
 AK102 (2.387 - 5.282) AK103 (5.282 - 6.691) Jet A (2.387 - 4.171)

Surrogate	Area	Amount	%Rec
o-Terphenyl	721628	41.7	92.6
Triacontane	357861	32.9	73.2

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	10861.8	12-NOV-2008
Gas	<del>2600.1</del> <del>65383.2</del> <del>1213</del>	12-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	7029.0	12-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	5439.0	12-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	9368.4	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081111b,b/1111a118b,d/1111a122.o

Date: 12-NOV-2008 22:06

Client ID:

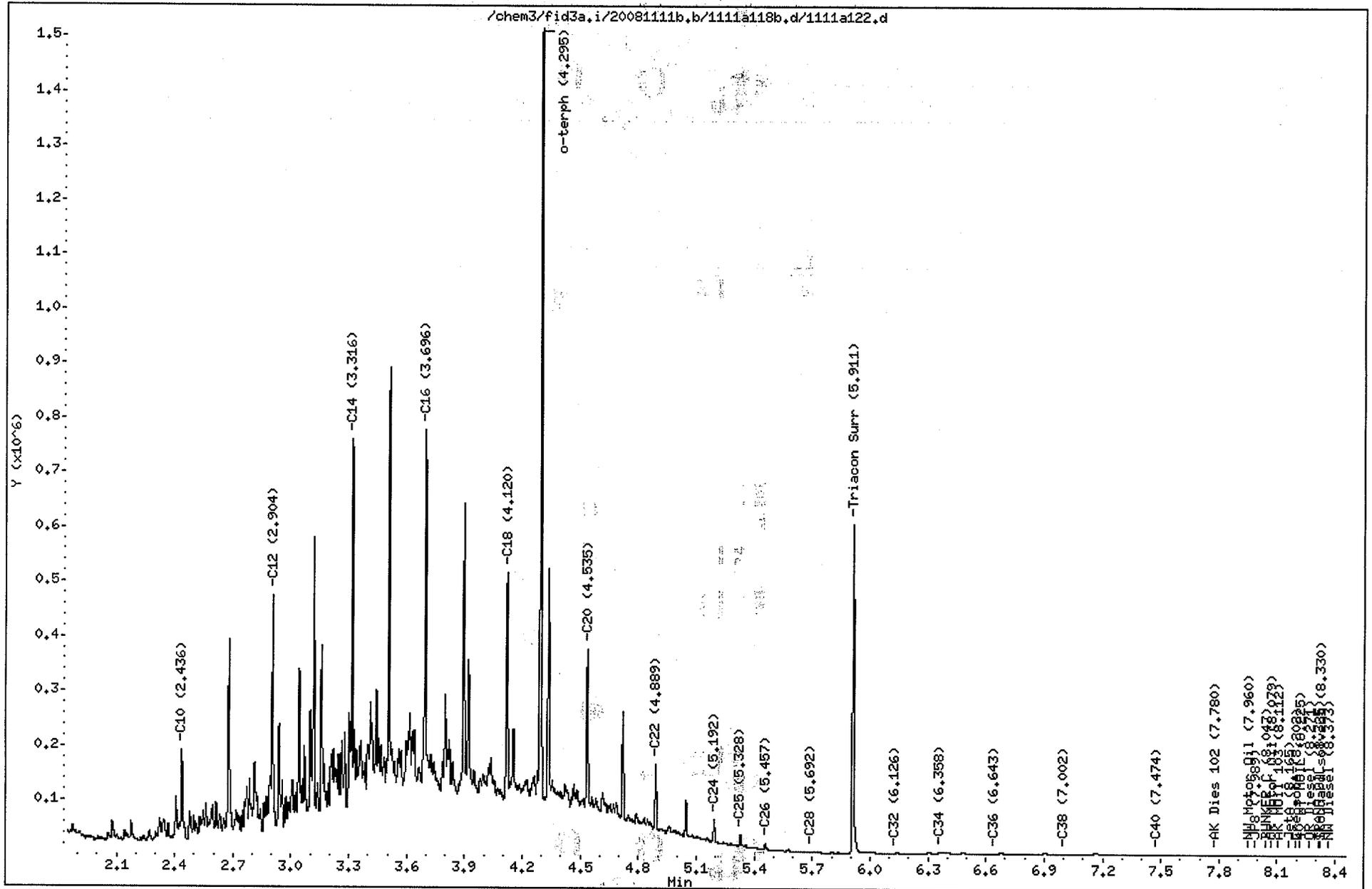
Sample Info: NY64LCS0W1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Water  
Date Received: 11/06/08

ARI Job: NY64  
Project: BOEING THOMPSON  
023173

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
08-30268-111008MB	Method Blank	500 mL	1.00 mL	11/10/08
08-30268-111008LCS	Lab Control	500 mL	1.00 mL	11/10/08
08-30268-111008LCSD	Lab Control Dup	500 mL	1.00 mL	11/10/08
08-30268-NY64H	TDP26-GW-081106	500 mL	1.00 mL	11/10/08
08-30269-NY64I	TDP28-GW-081106	500 mL	1.00 mL	11/10/08
08-30270-NY64J	TDP29-GW-081106	500 mL	1.00 mL	11/10/08
08-30271-NY64K	TDP31-GW-081106	500 mL	1.00 mL	11/10/08
08-30272-NY64L	TH-SUMP-081106	500 mL	5.00 mL	11/10/08
08-30274-NY64N	TH-DRUM2-WATER	500 mL	1.00 mL	11/10/08

**ORGANICS ANALYSIS DATA SHEET**

**TOTAL DIESEL RANGE HYDROCARBONS**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Matrix: Soil

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Data Release Authorized: 

Reported: 11/18/08

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-111708	Method Blank	11/17/08	11/18/08	1.00	Diesel	5.0	< 5.0 U
08-30261	HC ID: ---		FID3A	1.0	Motor Oil o-Terphenyl	10	< 10 U 97.8%
NY64A	TDP26-8-081106	11/17/08	11/18/08	1.00	Diesel	6.0	6.5
08-30261	HC ID: DRO/MOTOR OIL		FID3A	1.0	Motor Oil o-Terphenyl	12	24 94.2%
NY64F	TDP31-12-081106	11/17/08	11/18/08	1.00	Diesel	6.4	58
08-30266	HC ID: DRO/MOTOR OIL		FID3A	1.0	Motor Oil o-Terphenyl	13	400 96.2%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.

DL-Dilution of extract prior to analysis.

RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.

Motor Oil quantitation on total peaks in the range from C24 to C38.

HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a074.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64MBS1  
Client ID: NY64MBS1  
Injection: 18-NOV-2008 07:36  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.773	-0.001	84878	73749	GAS (Tol-C12)	1470280	22
C8	1.874	-0.001	31427	35509	DIESEL (C12-C24)	390465	26 <i>LDC</i>
C10	2.415	-0.006	18425	22201	M.OIL (C24-C38)	528789	45 <i>I</i>
C12	2.895	0.000	9157	10776	AK-102 (C10-C25)	743958	39
C14	3.312	0.005	4494	5312	AK-103 (C25-C36)	429926	42
C16	3.687	0.003	3162	4694	OR.DIES (C10-C28)	852187	43
C18	4.105	0.001	2793	4017	OR.MOIL (C28-C40)	530393	53
C20	4.527	0.007	2533	2155	JET-A (C10-C18)	603710	36
C22	4.878	0.003	3024	2313	MIN.OIL (C24-C38)	528789	41
C24	5.184	0.006	3209	4031	MSPRIT (Tol-C12)	1470280	93
C25	5.313	0.000	3656	3224			
C26	5.435	-0.003	3569	1964			
C28	5.678	0.006	5115	6514			
C32	6.094	-0.003	6988	4845			
C34	6.324	-0.003	6236	3571			
Filter Peak	8.431	-0.003	3605	4137	JP-4 (Tol-C14)	1595283	140
C36	6.597	0.000	5750	3919	CREOSOT (C8-C22)	1512944	243
C38	6.929	-0.003	4826	4642			
C40	7.364	-0.001	4292	2480	BUNKERC (C10-C38)	1265983	142

AZDIESEL (C10-C22)	597933	37
AZMOIL (C22-C32)	292159	45

Range Times: NW Diesel(2.945 - 5.228) NW Gas(1.724 - 2.945) NW M.Oil(5.228 - 6.982)  
AK102(2.371 - 5.263) AK103(5.263 - 6.647) Jet A(2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	762753	44.0	97.9
Triacotane	688079	41.3	91.8

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081117,b/1117a074.d

Date: 18-NOV-2008 07:36

Client ID: NY64MBS1

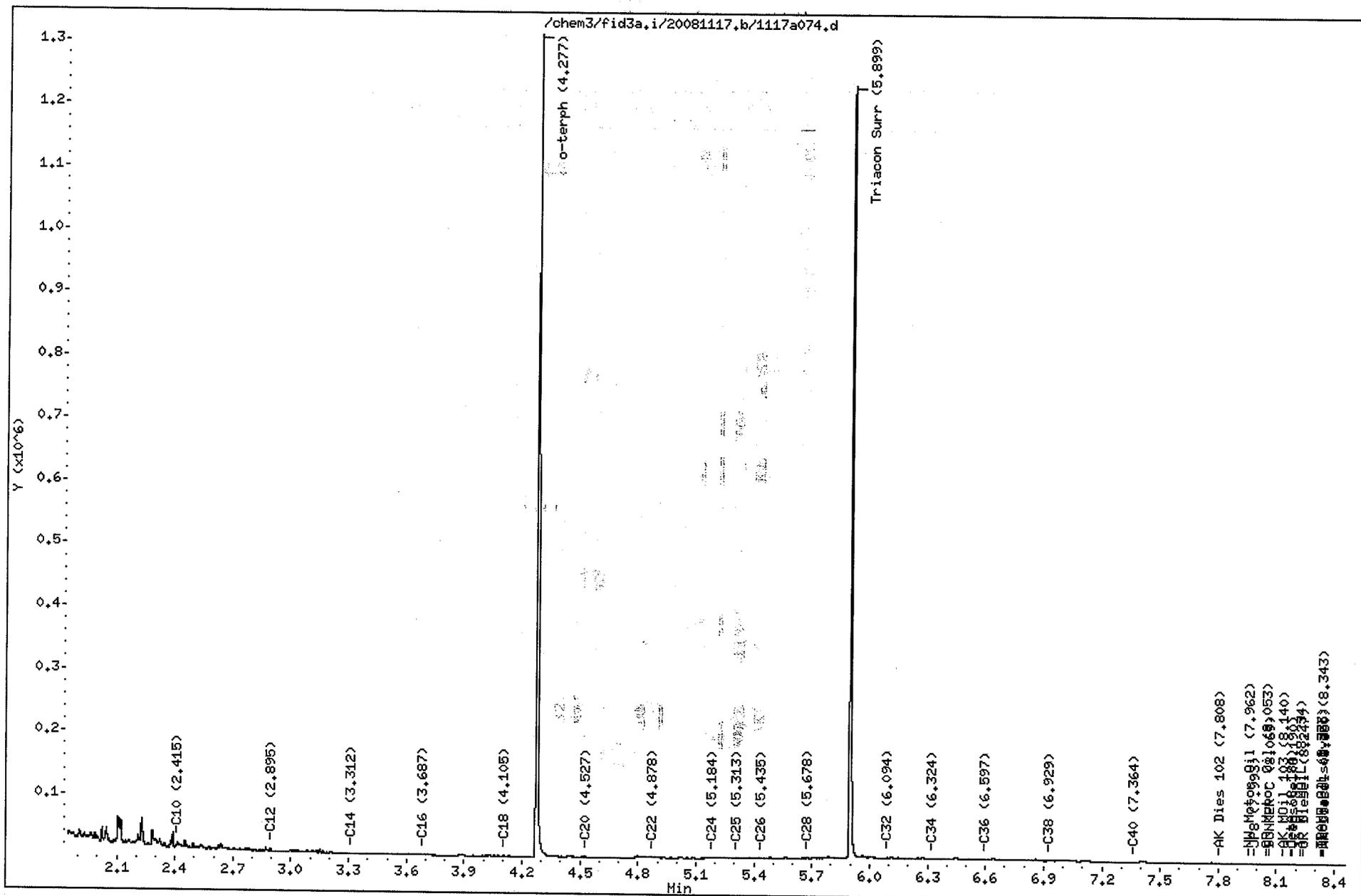
Sample Info: NY64MBS1

Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08 ✓

Data file: /chem3/fid3a.i/20081117.b/1117a077.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64A  
Client ID: TDP26-8-081106  
Injection: 18-NOV-2008 08:19  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.774	-0.001	79619	69627	GAS (Tol-C12)	1483724	23
C8	1.874	-0.001	30591	34008	DIESEL (C12-C24)	820407	5420
C10	2.417	-0.003	19919	24943	M.OIL (C24-C38)	2298291	196 MOIL
C12	2.895	0.001	16937	15017	AK-102 (C10-C25)	1261928	66
C14	3.309	0.002	13041	13307	AK-103 (C25-C36)	2049260	202
C16	3.687	0.003	10104	11117	OR.DIES (C10-C28)	1860815	95
C18	4.104	0.000	10010	10217	OR.MOIL (C28-C40)	1904220	189
C20	4.519	-0.001	10586	10520	JET-A (C10-C18)	836875	50
C22	4.875	0.000	15198	11705	MIN.OIL (C24-C38)	2298291	179
C24	5.178	0.000	21999	17035	MSPIRIT (Tol-C12)	1483724	94
C25	5.313	0.000	36774	33023			
C26	5.441	0.002	33963	33639			
C28	5.676	0.005	42832	53601			
C32	6.091	-0.006	26522	7879			
C34	6.322	-0.005	20809	8172			
Filter Peak	8.434	0.000	4555	2706	JP-4 (Tol-C14)	1650992	145
C36	6.593	-0.004	14890	3554	CREOSOT (C8-C22)	1849542	297
C38	6.926	-0.006	11358	2469			
C40	7.367	0.002	8033	6304	BUNKERC (C10-C38)	3547198	397
=====							
AZDIESEL (C10-C22)			973343	61			
AZMOIL (C22-C32)			1648588	256			

Range Times: NW Diesel (2.945 - 5.228) NW Gas (1.724 - 2.945) NW M.Oil (5.228 - 6.982)  
AK102 (2.371 - 5.263) AK103 (5.263 - 6.647) Jet A (2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	733507	42.4	94.1 ✓
Triacotane	610038	36.6	81.4

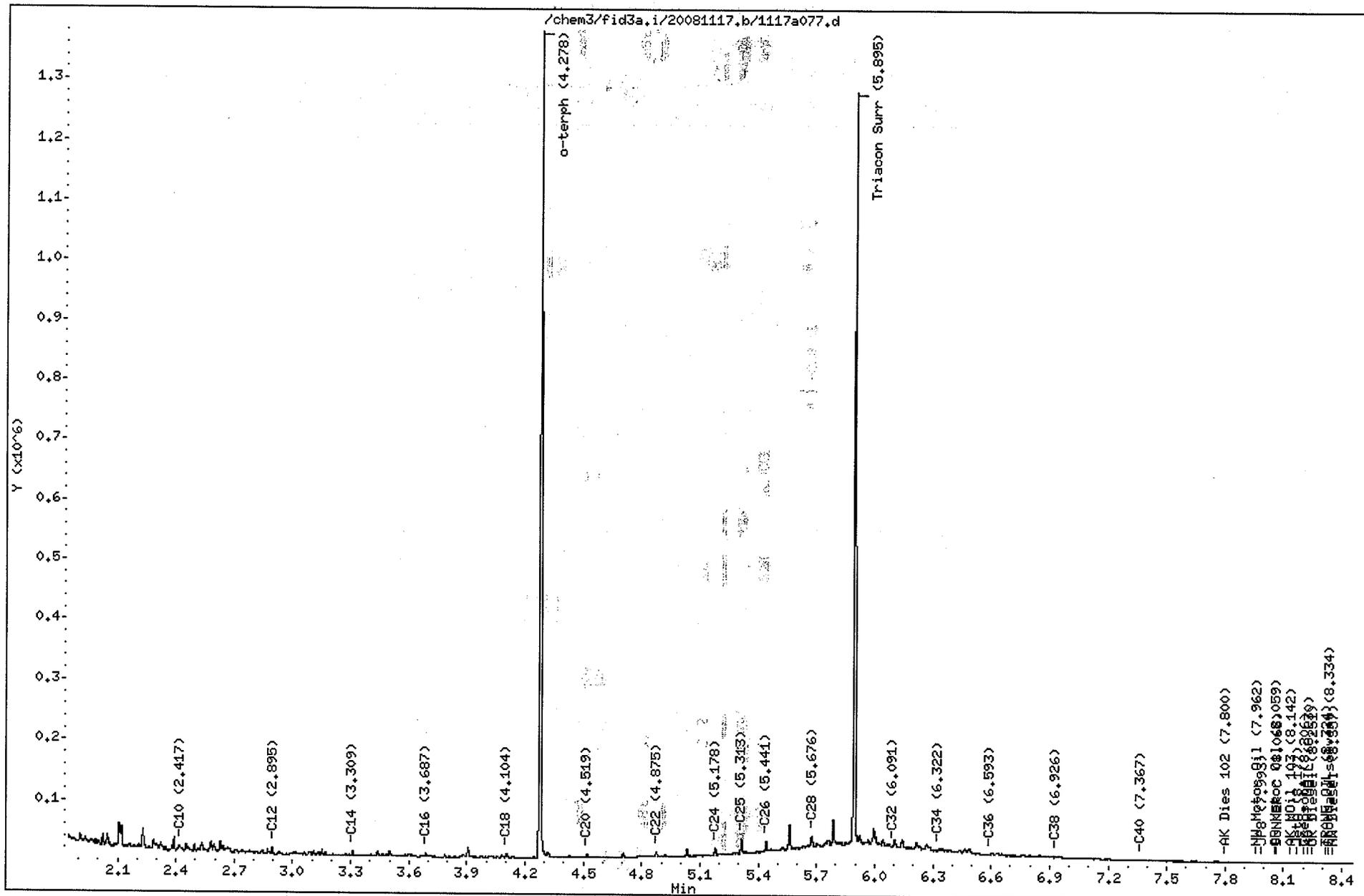
Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Date : 18-NOV-2008 08:19  
Client ID: TDP26-8-081106  
Sample Info: NY64A

Instrument: fid3a.i

Operator: ms  
Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: /chem3/fid3a.i/20081117.b/1117a078.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64F  
Client ID: TDP31-12-081106  
Injection: 18-NOV-2008 08:34  
Dilution Factor: 1

FID:3A RESULTS

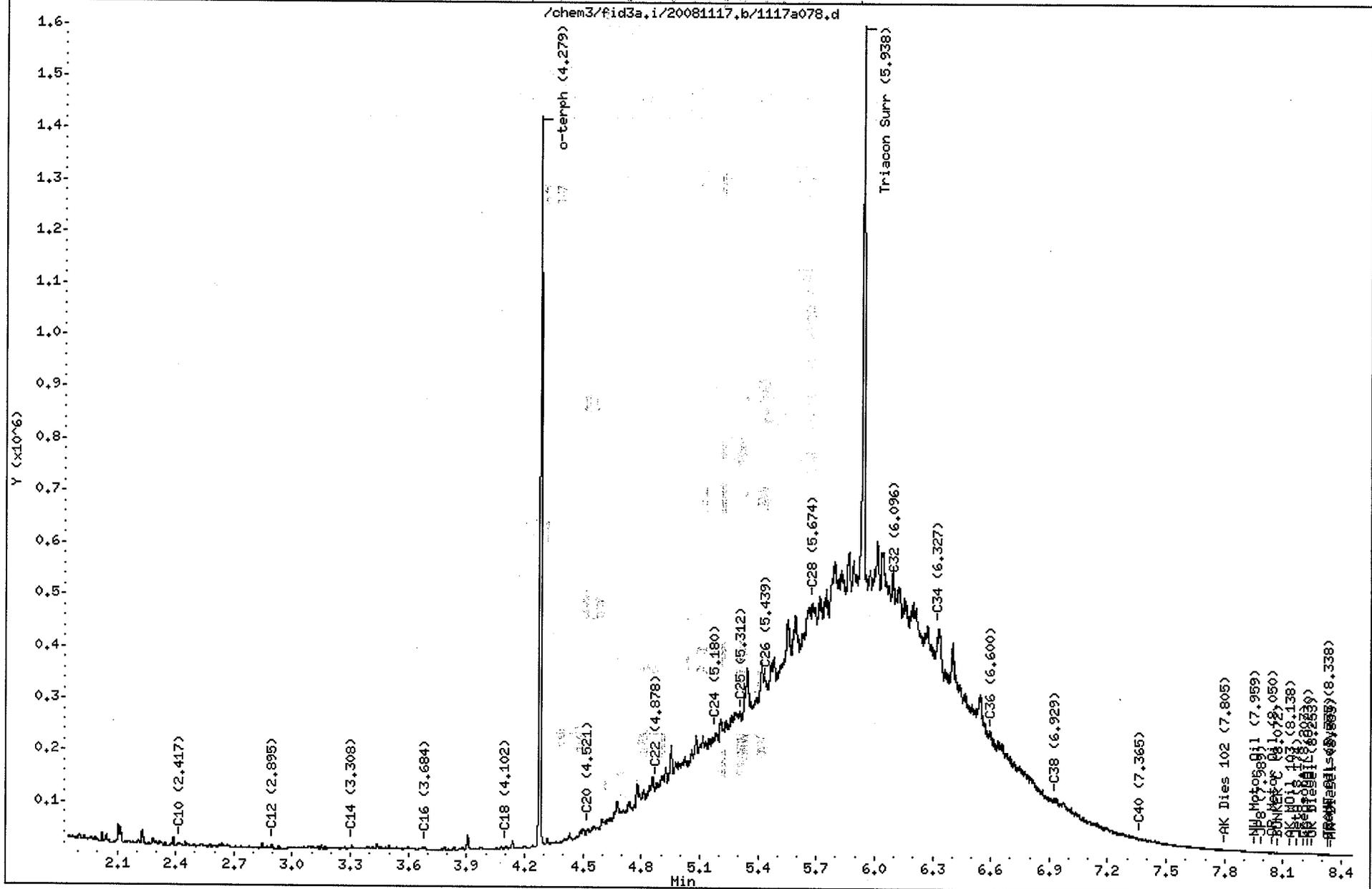
Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.771	-0.003	71073	64490	GAS (Tol-C12)	1284401	20
C8	1.872	-0.002	28300	28087	DIESEL (C12-C24)	6799255	449 <i>DRB</i>
C10	2.417	-0.003	16446	21241	M.OIL (C24-C38)	35873918	3058 <i>MOIL</i>
C12	2.895	0.000	13114	12162	AK-102 (C10-C25)	7707286	406
C14	3.308	0.001	12066	9681	AK-103 (C25-C36)	32370087	3199
C16	3.684	0.000	10999	8438	OR.DIES (C10-C28)	17683854	902
C18	4.102	-0.001	13298	14199	OR.MOIL (C28-C40)	26811437	2657
C20	4.521	0.001	47141	25420	JET-A (C10-C18)	903594	54
C22	4.878	0.003	138244	88283	MIN.OIL (C24-C38)	35873918	2798
C24	5.180	0.002	233539	87106	MSPRIT (Tol-C12)	1284401	81
C25	5.312	-0.001	270058	53283			
C26	5.439	0.000	330468	202434			
C28	5.674	0.002	485324	205927			
C32	6.096	0.000	515284	161186			
C34	6.327	0.000	438318	204653			
Filter Peak	8.433	-0.001	8232	2905	JP-4 (Tol-C14)	1465620	129
C36	6.600	0.003	234584	118728	CREOSOT (C8-C22)	4349243	698
C38	6.929	-0.003	112711	48268			
C40	7.365	0.001	36612	18846	BUNKERC (C10-C38)	43009426	4813

AZDIESEL (C10-C22)	3570476	222
AZMOIL (C22-C32)	26665457	4142

Range Times: NW Diesel (2.945 - 5.228) NW Gas (1.724 - 2.945) NW M.Oil (5.228 - 6.982)  
AK102 (2.371 - 5.263) AK103 (5.263 - 6.647) Jet A (2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	750621	43.3	96.3
Triacotane	642042	38.6	85.7

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008



**CLEANED TPHD SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-111708	97.8%	0
LCS-111708	98.9%	0
LCSD-111708	101%	0
TDP26-8-081106	94.2%	0
TDP31-12-081106	96.2%	0

**LCS/MB LIMITS      QC LIMITS**

(OTER) = o-Terphenyl

(62-118)

(49-125)

Prep Method: SW3546  
Log Number Range: 08-30261 to 08-30266

**ORGANICS ANALYSIS DATA SHEET**

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: LCS-111708

Page 1 of 1

LCS/LCSD

Lab Sample ID: LCS-111708

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30261

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized: *[Signature]*

Date Sampled: 11/06/08

Reported: 11/18/08

Date Received: 11/06/08

Date Extracted LCS/LCSD: 11/17/08

Sample Amount LCS: 10.0 g

LCSD: 10.0 g

Date Analyzed LCS: 11/18/08 07:50

Final Extract Volume LCS: 1.0 mL

LCSD: 11/18/08 08:05

LCSD: 1.0 mL

Instrument/Analyst LCS: FID/AAR

Dilution Factor LCS: 1.0

LCSD: FID/AAR

LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	122	150	81.3%	128	150	85.3%	4.8%

**TPHD Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	98.9%	101%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.

Analytical Resources Inc.  
TPH Quantitation Report

11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a075.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64LCSS1  
Client ID: NY64LCSS1  
Injection: 18-NOV-2008 07:50  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	100445	85208	GAS (Tol-C12)	5087338	78
C8	1.872	-0.002	47017	52286	DIESEL (C12-C24)	18456355	1219 <b>81.3%</b>
C10	2.419	-0.001	312443	175115	M.OIL (C24-C38)	715386	61
C12	2.895	0.001	606548	287266	AK-102 (C10-C25)	22079562	1163
C14	3.308	0.001	817660	368795	AK-103 (C25-C36)	592769	59
C16	3.684	0.001	820653	668790	OR.DIES (C10-C28)	22399645	1142
C18	4.104	0.001	526711	393541	OR.MOIL (C28-C40)	446882	44
C20	4.519	-0.001	410113	325130	JET-A (C10-C18)	16632109	988
C22	4.874	-0.001	171830	120277	MIN.OIL (C24-C38)	715386	56
C24	5.175	-0.003	73645	54318	MSPRIT (Tol-C12)	5087338	321
C25	5.310	-0.003	43345	46881			
C26	5.437	-0.001	27206	30044			
C28	5.671	0.000	10216	13385			
C32	6.103	0.006	7747	13116			
C34	6.326	-0.001	5143	1128			
Filter Peak	8.439	0.005	3460	1583	JP-4 (Tol-C14)	9428461	830
C36	6.595	-0.002	4624	1198	CREOSOT (C8-C22)	22558845	3618
C38	6.931	-0.001	4134	1814			
C40	7.363	-0.001	3841	919	BUNKERC (C10-C38)	22754523	2546
AZDIESEL (C10-C22)			20905713	1302			
AZMOIL (C22-C32)			1160062	180			

Range Times: NW Diesel(2.945 - 5.228) NW Gas(1.724 - 2.945) NW M.Oil(5.228 - 6.982)  
AK102(2.371 - 5.263) AK103(5.263 - 6.647) Jet A(2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	770968	44.5	98.9
Triacotane	705505	42.4	94.1

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081117.b/1117a075.d

Date: 18-NOV-2008 07:50

Client ID: NY64LCSS1

Sample Info: NY64LCSS1

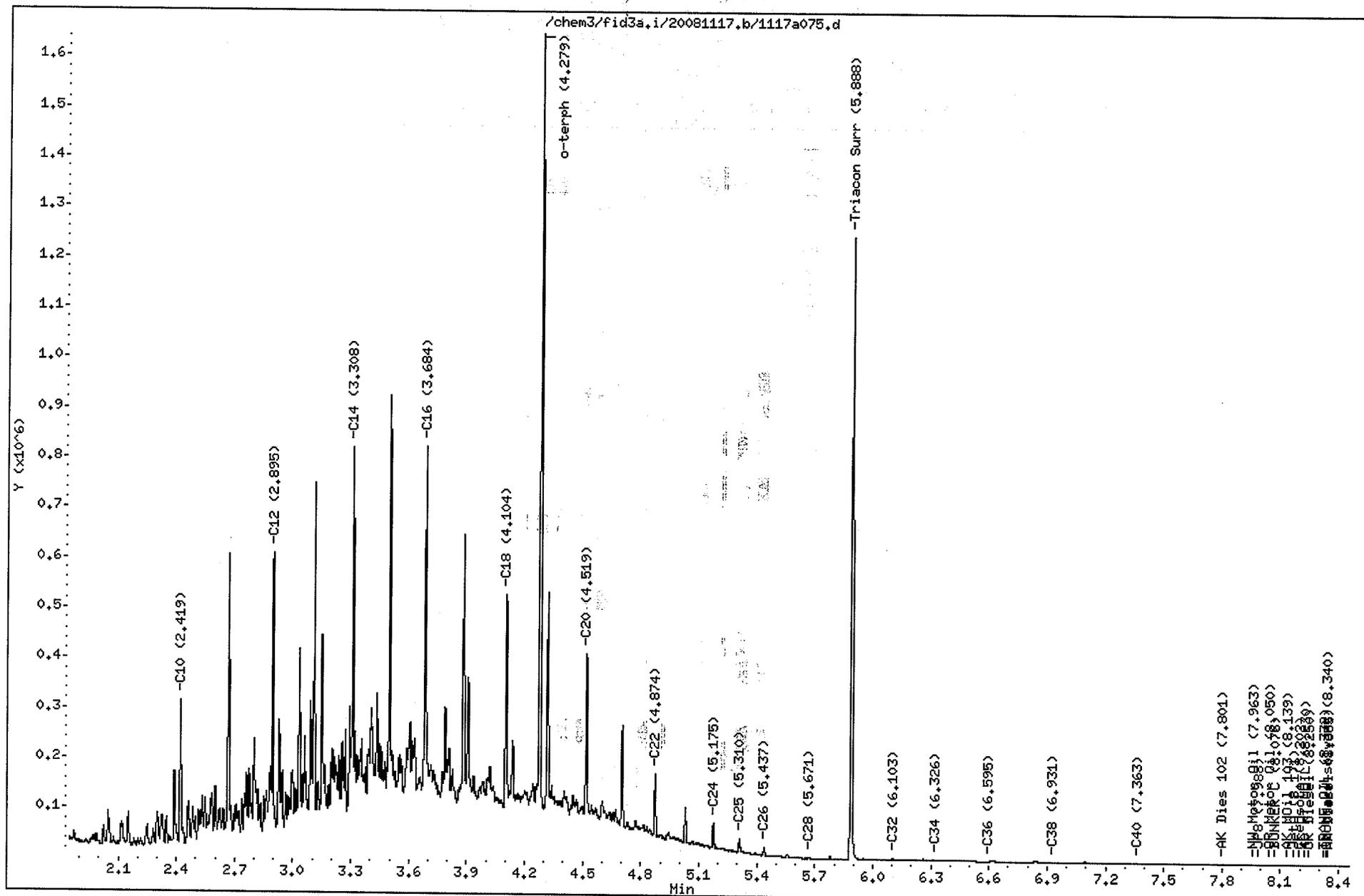
Column phase: RTX-1

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08 ✓

Data file: /chem3/fid3a.i/20081117.b/1117a076.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64LCSDS1  
Client ID: NY64LCSDS1  
Injection: 18-NOV-2008 08:05  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	98530	86300	GAS (Tol-C12)	5131591	78
C8	1.872	-0.002	47208	50336	DIESEL (C12-C24)	19336797	1277
C10	2.419	-0.002	344321	181564	M.OIL (C24-C38)	743888	63
C12	2.895	0.001	648684	346134	AK-102 (C10-C25)	22997951	1211
C14	3.308	0.000	877728	376843	AK-103 (C25-C36)	616462	61
C16	3.685	0.001	804213	666845	OR.DIES (C10-C28)	23338787	1190
C18	4.104	0.001	555023	397797	OR.MOIL (C28-C40)	458819	45
C20	4.519	-0.001	417849	292625	JET-A (C10-C18)	17247137	1025
C22	4.873	-0.002	168643	132082	MIN.OIL (C24-C38)	743888	58
C24	5.176	-0.002	73165	61176	MSPRIT (Tol-C12)	5131591	324
C25	5.311	-0.002	45132	51628			
C26	5.438	0.000	27364	29368			
C28	5.672	0.001	10289	11770			
C32	6.089	-0.008	5210	1245			
C34	6.328	0.001	5294	1795			
Filter Peak	8.439	0.004	3427	1091	JP-4 (Tol-C14)	9763253	859
C36	6.591	-0.007	4597	2742	CREOSOT (C8-C22)	23459674	3763
C38	6.935	0.002	4202	3424			
C40	7.363	-0.002	3669	1171	BUNKERC (C10-C38)	23695488	2651
AZDIESEL (C10-C22)			21780137	1356			
AZMOIL (C22-C32)			1207184	188			

85.1%

Range Times: NW Diesel (2.945 - 5.228) NW Gas (1.724 - 2.945) NW M.Oil (5.228 - 6.982)  
AK102 (2.371 - 5.263) AK103 (5.263 - 6.647) Jet A (2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	789454	45.6	101.3
Triacotane	720962	43.3	96.2

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

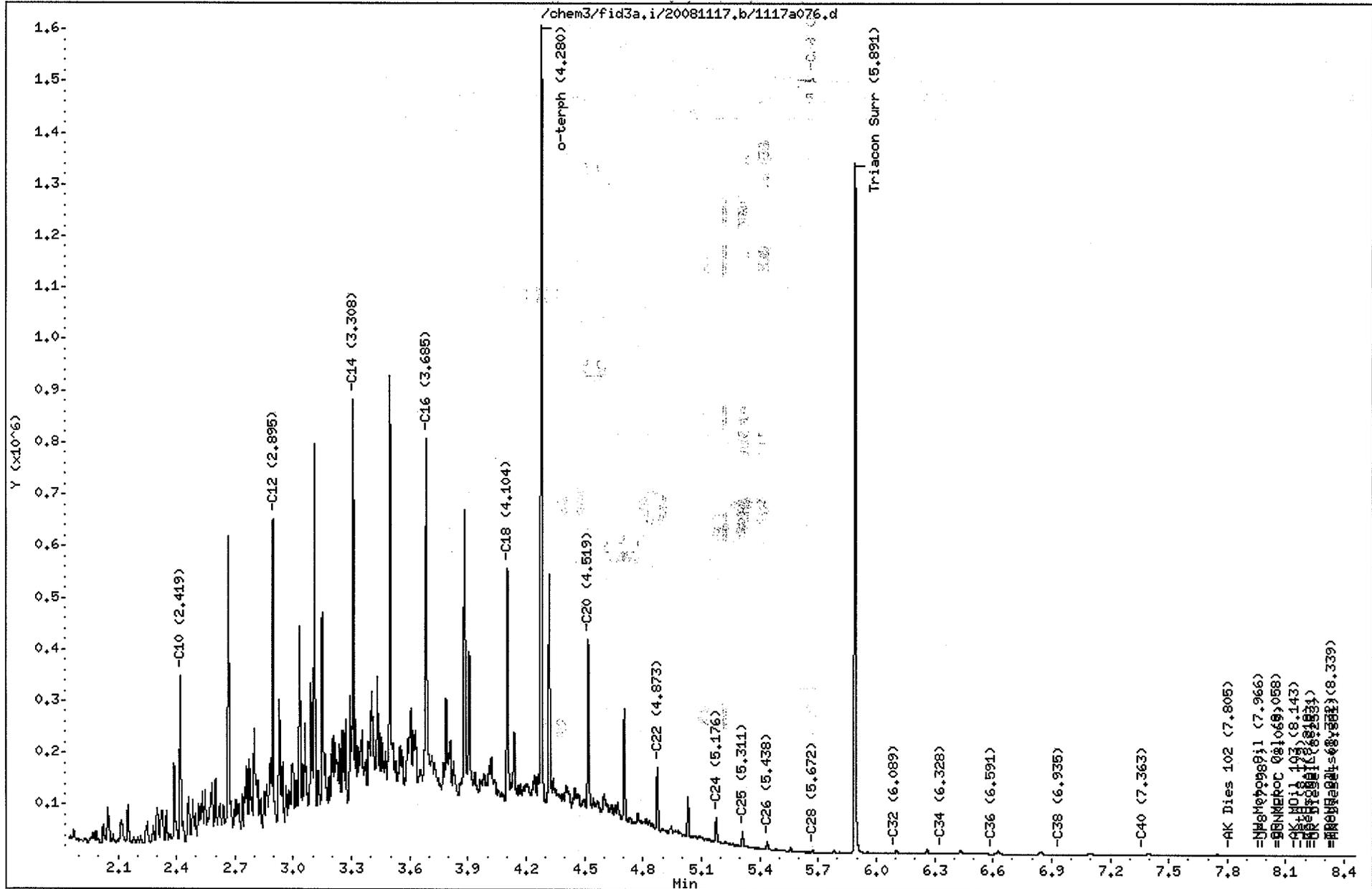
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Date : 18-NOV-2008 08:05  
Client ID: NY64LCSDS1  
Sample Info: NY64LCSDS1

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/06/08

ARI Job: NY64  
Project: BOEING THOMPSON  
023173

<u>ARI ID</u>	<u>Client ID</u>	<u>Client Amt</u>	<u>Final Vol</u>	<u>Basis</u>	<u>Prep Date</u>
08-30261-111708MB1	Method Blank	10.0 g	1.00 mL	-	11/17/08
08-30261-111708LCS1	Lab Control	10.0 g	1.00 mL	-	11/17/08
08-30261-111708LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	11/17/08
08-30261-NY64A	TDP26-8-081106	8.28 g	1.00 mL	D	11/17/08
08-30266-NY64F	TDP31-12-081106	7.75 g	1.00 mL	D	11/17/08

**ORGANICS ANALYSIS DATA SHEET**

**TOTAL DIESEL RANGE HYDROCARBONS**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Matrix: Water

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Data Release Authorized:

Reported: 11/18/08

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-111408	Method Blank	11/14/08	11/18/08	1.00	Diesel	0.25	< 0.25 U
08-30270	HC ID: ---		FID3A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		76.0%
NY64J	TDP29-GW-081106	11/14/08	11/18/08	1.00	Diesel	0.25	< 0.25 U
08-30270	HC ID: ---		FID3A	1.0	Motor Oil	0.50	< 0.50 U
					o-Terphenyl		88.4%
NY64K	TDP31-GW-081106	11/14/08	11/18/08	1.00	<b>Diesel</b>	<b>0.25</b>	<b>0.47</b>
08-30271	HC ID: <b>DRO/MOTOR OIL</b>		FID3A	1.0	<b>Motor Oil</b>	<b>0.50</b>	<b>3.2</b>
					o-Terphenyl		92.2%
NY64L	TH-SUMP-081106	11/14/08	11/18/08	5.00	<b>Diesel</b>	<b>2.5</b>	<b>25</b>
08-30272	HC ID: <b>DRO/MOTOR OIL</b>		FID3A	5.0	<b>Motor Oil</b>	<b>5.0</b>	<b>62</b>
					o-Terphenyl		D

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.

DL-Dilution of extract prior to analysis.

RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.

Motor Oil quantitation on total peaks in the range from C24 to C38.

HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a065.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64MBW1  
Client ID: NY64MBW1  
Injection: 18-NOV-2008 05:25  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	73713	64028	GAS (Tol-C12)	1182515	18
C8	1.873	-0.001	29649	21882	DIESEL (C12-C24)	235234	16
C10	2.415	-0.005	38888	37735	M.OIL (C24-C38)	546180	47
C12	2.893	-0.001	6077	7243	AK-102 (C10-C25)	511162	27
C14	3.313	0.005	3087	955	AK-103 (C25-C36)	431080	43
C16	3.688	0.004	1752	1369	OR.DIES (C10-C28)	604581	31
C18	4.104	0.001	880	122	OR.MOIL (C28-C40)	584987	58
C20	4.516	-0.004	1033	489	JET-A (C10-C18)	428308	25
C22	4.885	0.010	1680	2033	MIN.OIL (C24-C38)	546180	43
C24	5.174	-0.003	1984	1218	MSPRIT (Tol-C12)	1182515	75
C25	5.318	0.005	2518	1309			
C26	5.435	-0.003	3161	1510			
C28	5.701	0.030	4333	1687			
C32	6.140	0.043	6301	1494			
C34	6.325	-0.001	6657	2104			
Filter Peak	8.437	0.002	3709	1698	JP-4 (Tol-C14)	1270756	112
C36	6.655	0.058	5544	4676	CREOSOT (C8-C22)	1133008	182
C38	6.942	0.010	5609	6798			
C40	7.404	0.040	7629	11623	BUNKERC (C10-C38)	1053021	118

AZDIESEL (C10-C22)	397486	25
AZMOIL (C22-C32)	261875	41

Range Times: NW Diesel(2.945 - 5.228) NW Gas(1.724 - 2.945) NW M.Oil(5.228 - 6.982)  
AK102(2.371 - 5.263) AK103(5.263 - 6.647) Jet A(2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	591979	34.2	76.0
Triacontane	546004	32.8	72.9

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081117.b/1117a065.d

Date : 18-NOV-2008 05:25

Client ID: NY64MBW1

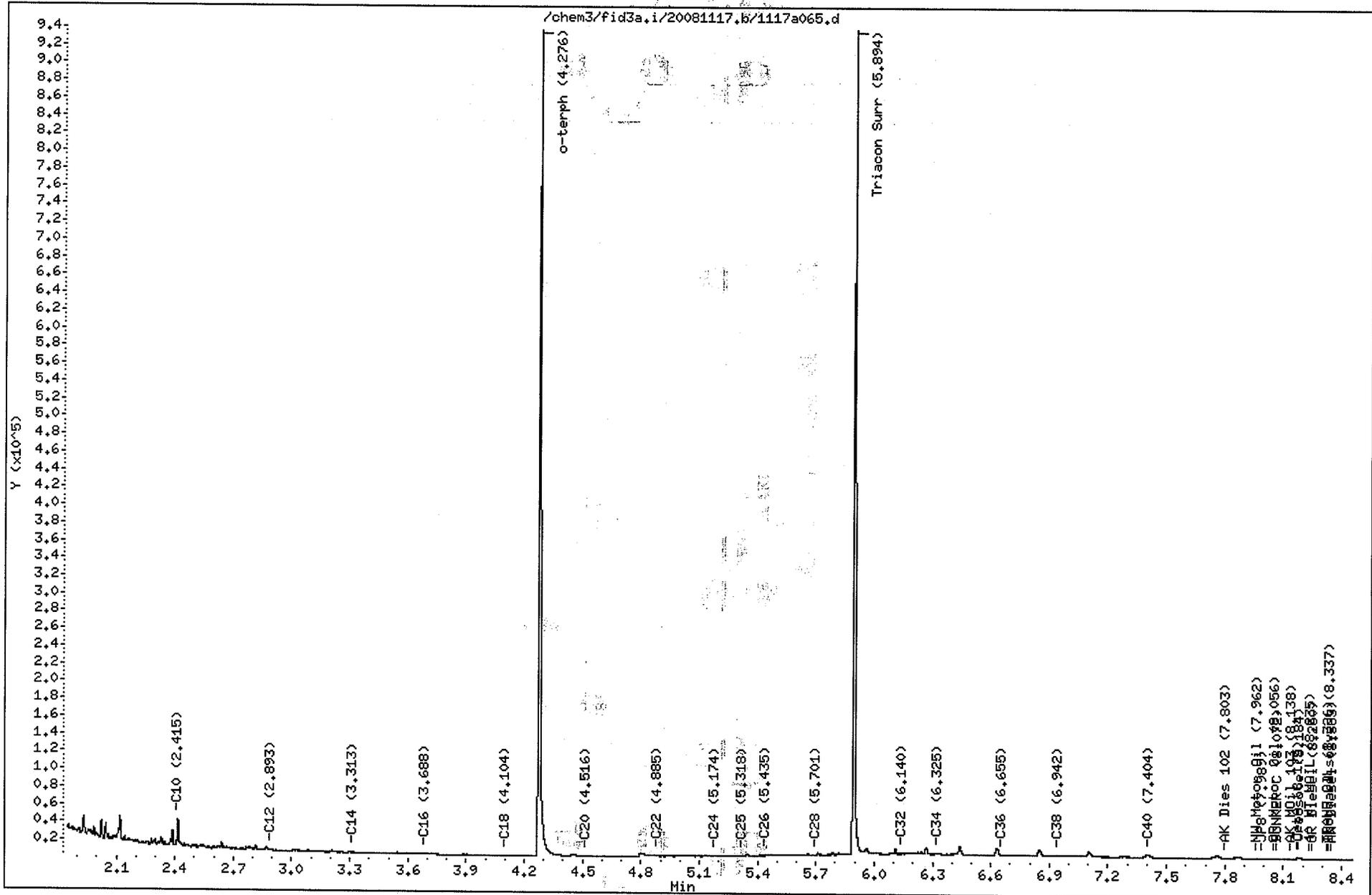
Instrument: fid3a.i

Sample Info: NY64MBW1

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a068.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64J  
Client ID: TDP29-GW-081106  
Injection: 18-NOV-2008 06:09  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.770	-0.005	78258	68378	GAS (Tol-C12)	1194584	18
C8	1.871	-0.004	30330	33161	DIESEL (C12-C24)	262700	17 <i>LD</i>
C10	2.415	-0.005	21497	31253	M.OIL (C24-C38)	369375	31 <i>L</i>
C12	2.895	0.000	7799	8214	AK-102 (C10-C25)	551342	29
C14	3.312	0.005	5262	7496	AK-103 (C25-C36)	291640	29
C16	3.690	0.006	2822	3233	OR.DIES (C10-C28)	609133	31
C18	4.105	0.001	1605	2567	OR.MOIL (C28-C40)	411975	41
C20	4.512	-0.008	1170	836	JET-A (C10-C18)	472300	28
C22	4.869	-0.006	1598	803	MIN.OIL (C24-C38)	369375	29
C24	5.184	0.006	1486	1491	MSPRIT (Tol-C12)	1194584	75
C25	5.318	0.005	1666	1624			
C26	5.447	0.008	1924	2758			
C28	5.707	0.035	3732	5581			
C32	6.150	0.053	4539	5502			
C34	6.329	0.002	4412	2899			
Filter Peak	8.433	-0.002	3316	1191	JP-4 (Tol-C14)	1294677	114
C36	6.636	0.038	8533	19074	CREOSOT (C8-C22)	1166740	187
C38	6.928	-0.004	3891	699			
C40	7.407	0.043	4619	15468	BUNKERC (C10-C38)	918046	103
AZDIESEL (C10-C22)			445669	28			
AZMOIL (C22-C32)			168368	26			

Range Times: NW Diesel (2.945 - 5.228) NW Gas (1.724 - 2.945) NW M.Oil (5.228 - 6.982)  
AK102 (2.371 - 5.263) AK103 (5.263 - 6.647) Jet A (2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	689446	39.8	88.5
Triacontane	617045	37.1	82.3

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081117,b/1117a068.d

Date: 18-NOV-2008 06:09

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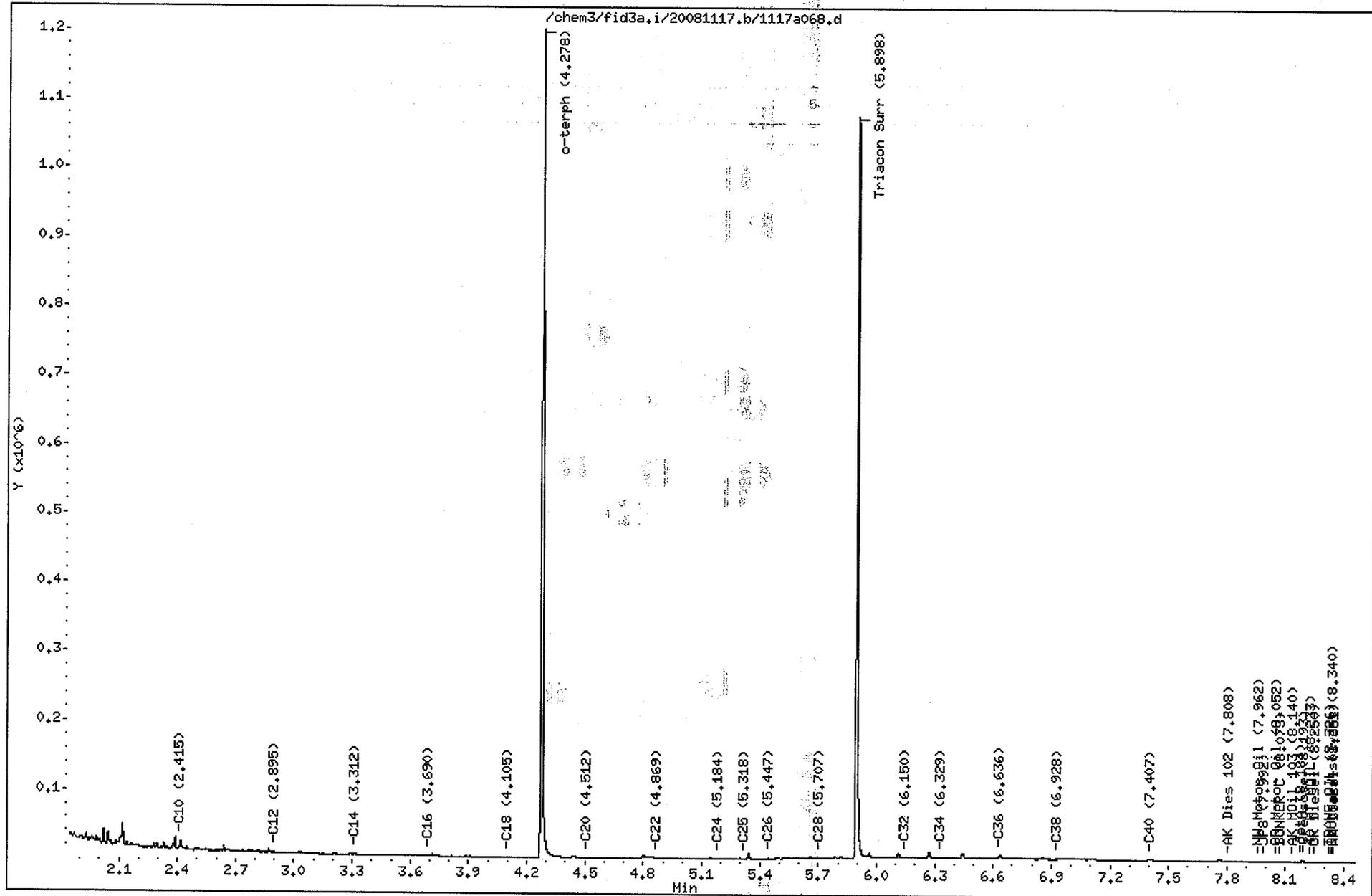
Sample Info: NY64J

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a069.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64K  
Client ID: TDP31-GW-081106  
Injection: 18-NOV-2008 06:23  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.770	-0.004	81231	69755	GAS (Tol-C12)	1272742	19
C8	1.872	-0.003	30531	31446	DIESEL (C12-C24)	3530901	233
C10	2.415	-0.006	22175	36898	M.OIL (C24-C38)	19034747	1623
C12	2.895	0.000	8594	9098	AK-102 (C10-C25)	4086037	215
C14	3.309	0.002	7045	8716	AK-103 (C25-C36)	17327163	1712
C16	3.686	0.002	4223	4287	OR.DIES (C10-C28)	9443244	482
C18	4.102	-0.002	4808	4718	OR.MOIL (C28-C40)	14205028	1408
C20	4.519	-0.001	21060	11348	JET-A (C10-C18)	613963	36
C22	4.876	0.001	65930	25838	MIN.OIL (C24-C38)	19034747	1484
C24	5.174	-0.004	118562	81140	MSPRIT (Tol-C12)	1272742	80
C25	5.313	0.000	153352	82376			
C26	5.441	0.002	178814	93707			
C28	5.674	0.003	248320	53875			
C32	6.099	0.002	260022	51481			
C34	6.329	0.002	202195	117943			
Filter Peak	8.436	0.002	5578	1869	JP-4 (Tol-C14)	1404823	124
C36	6.600	0.003	127108	41984	CREOSOT (C8-C22)	2648251	425
C38	6.933	0.001	57764	40661			
C40	7.369	0.004	20577	17609	BUNKERC (C10-C38)	22882696	2561

DRO MOIL

AZDIESEL (C10-C22)	1899524	118
AZMOIL (C22-C32)	14303785	2222

Range Times: NW Diesel (2.945 - 5.228) NW Gas (1.724 - 2.945) NW M.Oil (5.228 - 6.982)  
AK102 (2.371 - 5.263) AK103 (5.263 - 6.647) Jet A (2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	718132	41.5	92.1
Triacontane	627478	37.7	83.7

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081117.b/1117a069.d

Date : 18-NOV-2008 06:23

Client ID: TDP31-GW-081106

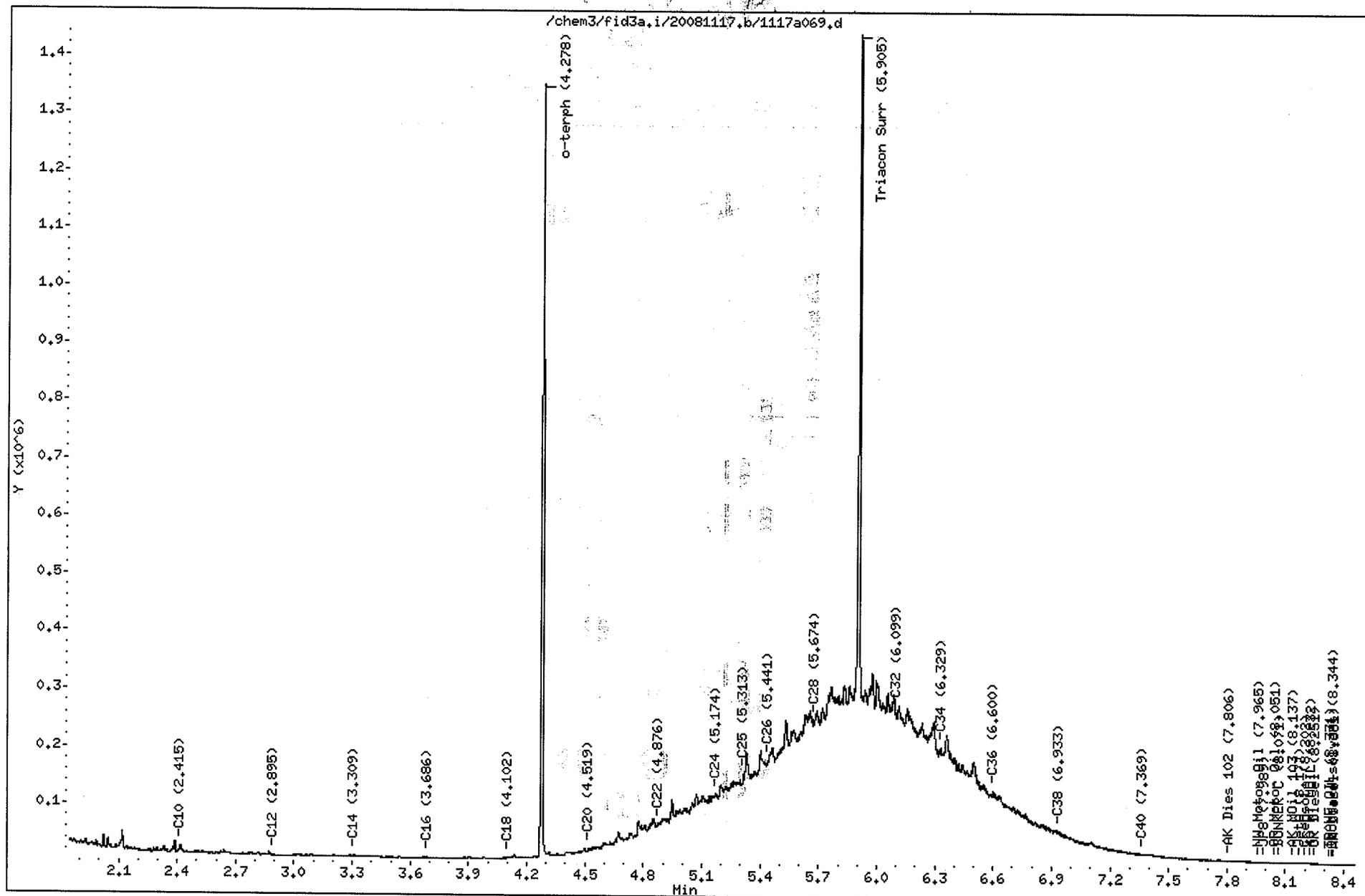
Sample Info: NY64K

Instrument: fid3a.i

Operator: ms

Column diameter: 0.25

Column phase: RTX-1



Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a071.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64L  
Client ID: TH-SUMP-081106  
Injection: 18-NOV-2008 06:52  
Dilution Factor: 15

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.770	-0.004	72853	62311	GAS (Tol-C12)	1975774	30
C8	1.871	-0.003	30185	33137	DIESEL (C12-C24)	7584172	501 <b>PRO</b>
C10	2.416	-0.005	37526	40568	M.OIL (C24-C38)	14565823	1242 <b>MOIL</b>
C12	2.891	-0.003	31687	20189	AK-102 (C10-C25)	8431560	444
C14	3.302	-0.005	46118	37860	AK-103 (C25-C36)	12995393	1284
C16	3.683	-0.001	11561	9077	OR.DIES (C10-C28)	13498932	688
C18	4.100	-0.003	13318	5672	OR.MOIL (C28-C40)	10145560	1005
C20	4.518	-0.002	787105	492225	JET-A (C10-C18)	1861179	111
C22	4.873	-0.003	92958	73227	MIN.OIL (C24-C38)	14565823	1136
C24	5.178	0.000	148166	158523	MSPRIT (Tol-C12)	1975774	125
C25	5.315	0.002	144776	39969			
C26	5.442	0.003	239853	217936			
C28	5.672	0.000	183145	61169			
C32	6.096	-0.001	155940	71286			
C34	6.331	0.004	164586	244716			
Filter Peak	8.438	0.003	11368	2931	JP-4 (Tol-C14)	2416529	213
C36	6.598	0.000	81921	32441	CREOSOT (C8-C22)	7348408	1179
C38	6.932	0.000	51283	17137			
C40	7.365	0.000	29684	6402	BUNKERC (C10-C38)	22712103	2541
=====							
AZDIESEL (C10-C22)			6064530	378			
AZMOIL (C22-C32)			12011333	1866			

Range Times: NW Diesel (2.945 - 5.228) NW Gas (1.724 - 2.945) NW M.Oil (5.228 - 6.982)  
AK102 (2.371 - 5.263) AK103 (5.263 - 6.647) Jet A (2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	129061	7.5	82.8
Triacontane	135438	8.1	90.4

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008



**CLEANED TPHD SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-111408	76.0%	0
LCS-111408	91.6%	0
LCSD-111408	90.7%	0
TDP29-GW-081106	88.4%	0
TDP31-GW-081106	92.2%	0
TH-SUMP-081106	D	0

**LCS/MB LIMITS      QC LIMITS**

(OTER) = o-Terphenyl

(49-118)

(45-112)

Prep Method: SW3510C  
Log Number Range: 08-30270 to 08-30272

ORGANICS ANALYSIS DATA SHEET  
 NWTPHD by GC/FID-Silica and Acid Cleaned  
 Page 1 of 1

Sample ID: LCS-111408  
 LCS/LCSD

Lab Sample ID: LCS-111408  
 LIMS ID: 08-30270  
 Matrix: Water  
 Data Release Authorized: *BR*  
 Reported: 11/18/08

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173  
 Date Sampled: 11/06/08  
 Date Received: 11/06/08

Date Extracted LCS/LCSD: 11/14/08

Sample Amount LCS: 500 mL  
 LCSD: 500 mL

Date Analyzed LCS: 11/18/08 05:40  
 LCSD: 11/18/08 05:54

Final Extract Volume LCS: 1.0 mL  
 LCSD: 1.0 mL

Instrument/Analyst LCS: FID/AAR  
 LCSD: FID/AAR

Dilution Factor LCS: 1.00  
 LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.29	3.00	76.3%	1.94	3.00	64.7%	16.5%

**TPHD Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	91.6%	90.7%

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

Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a066.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64LCSW1  
Client ID: NY64LCSW1  
Injection: 18-NOV-2008 05:40  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.772	-0.002	107272	88225	GAS (Tol-C12)	4565872	70
C8	1.872	-0.002	49590	54874	DIESEL (C12-C24)	17323032	1144
C10	2.419	-0.002	294337	152643	M.OIL (C24-C38)	750406	64
C12	2.896	0.001	543987	289365	AK-102 (C10-C25)	20450840	1077
C14	3.308	0.001	758097	351205	AK-103 (C25-C36)	617406	61
C16	3.685	0.001	759706	636027	OR.DIES (C10-C28)	20773111	1059
C18	4.105	0.002	491792	370883	OR.MOIL (C28-C40)	480633	48
C20	4.519	-0.001	372203	306820	JET-A (C10-C18)	15394226	915
C22	4.875	0.000	164398	129427	MIN.OIL (C24-C38)	750406	59
C24	5.178	0.000	69545	54661	MSPRIT (Tol-C12)	4565872	289
C25	5.314	0.001	39958	34913			
C26	5.442	0.003	24418	22688			
C28	5.678	0.006	8827	10378			
C32	6.111	0.014	13121	17152			
C34	6.328	0.001	4992	994			
Filter Peak	8.438	0.003	3497	418	JP-4 (Tol-C14)	8514316	749
C36	6.595	-0.003	4737	3956	CREOSOT (C8-C22)	20950833	3361
C38	6.933	0.000	4481	1160			
C40	7.371	0.007	4070	2584	BUNKERC (C10-C38)	21153255	2367
AZDIESEL (C10-C22)			19380974	1207			
AZMOIL (C22-C32)			1108655	172			

76.52

Range Times: NW Diesel(2.945 - 5.228) NW Gas(1.724 - 2.945) NW M.Oil(5.228 - 6.982)  
AK102(2.371 - 5.263) AK103(5.263 - 6.647) Jet A(2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	713701	41.2	91.6
Triacontane	662154	39.8	88.4

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081117.b/1117a066.d

Page 1

Date : 18-NOV-2008 05:40

Client ID: NY64LCSM1

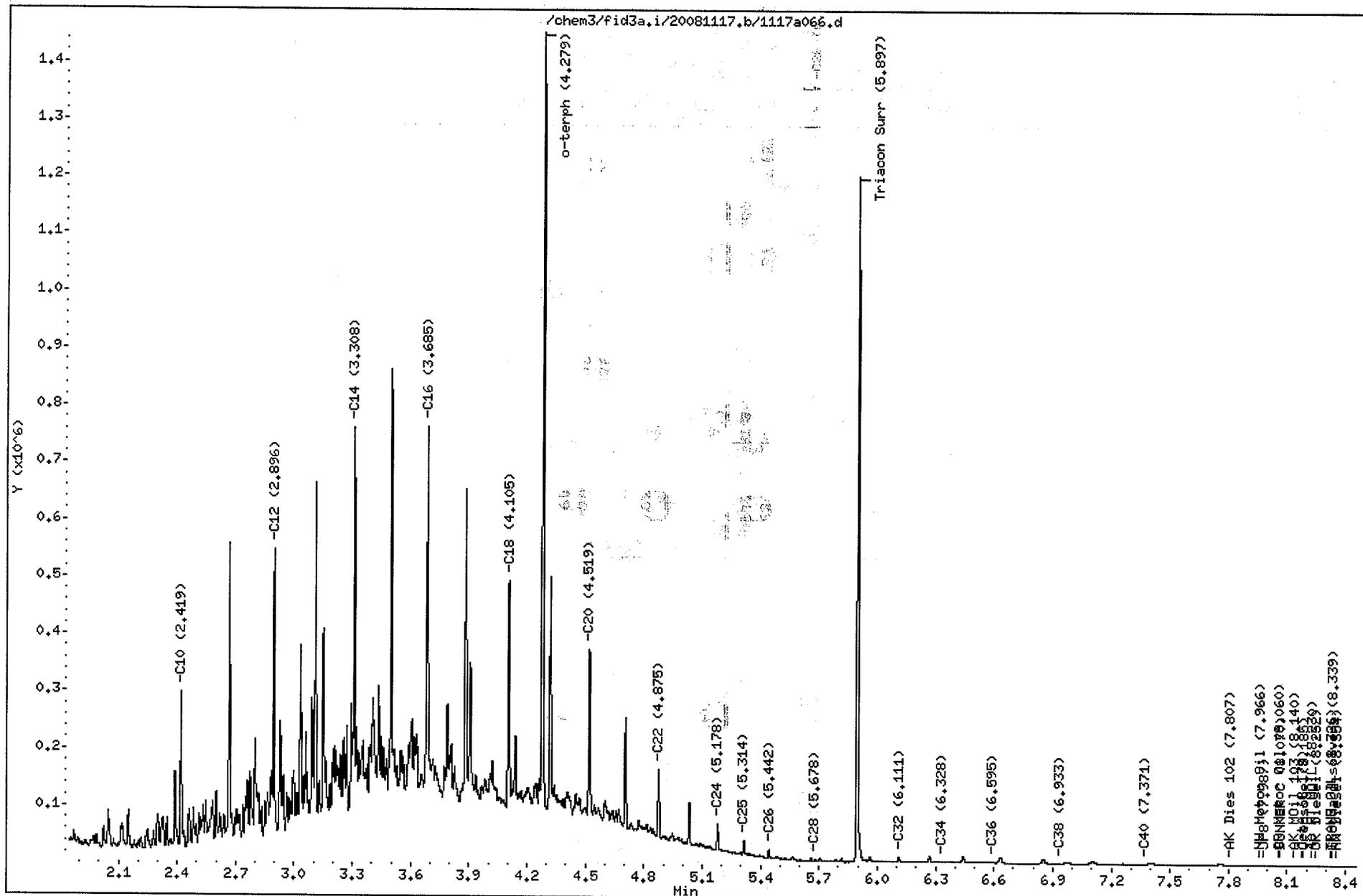
Instrument: fid3a.i

Sample Info: NY64LCSM1

Operator: ms

Column phase: RTX-1

Column diameter: 0,25



Analytical Resources Inc.  
TPH Quantitation Report

AR 11/18/08

Data file: /chem3/fid3a.i/20081117.b/1117a067.d  
Method: /chem3/fid3a.i/20081117.b/ftphfid3a.m  
Instrument: fid3a.i  
Operator: ms  
Report Date: 11/18/2008  
Macro: FID:3A111308

ARI ID: NY64LCSDW1  
Client ID: NY64LCSDW1  
Injection: 18-NOV-2008 05:54  
Dilution Factor: 1

FID:3A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.773	-0.002	92418	83417	GAS (Tol-C12)	4175632	64
C8	1.873	-0.001	46870	51710	DIESEL (C12-C24)	14660016	968
C10	2.420	-0.001	290119	151407	M.OIL (C24-C38)	609010	52
C12	2.896	0.001	581558	249513	AK-102 (C10-C25)	17475385	920
C14	3.309	0.001	783362	337413	AK-103 (C25-C36)	501103	50
C16	3.685	0.001	733767	503594	OR.DIES (C10-C28)	17741817	905
C18	4.104	0.001	483554	348565	OR.MOIL (C28-C40)	401639	40
C20	4.521	0.001	369307	271834	JET-A (C10-C18)	13171766	783
C22	4.875	0.000	144733	112779	MIN.OIL (C24-C38)	609010	47
C24	5.179	0.001	63754	45647	MSPRIT (Tol-C12)	4175632	264
C25	5.315	0.002	36074	36247			
C26	5.443	0.005	21869	19292			
C28	5.679	0.008	7801	10931			
C32	6.098	0.001	4393	700			
C34	6.331	0.004	4518	2072			
Filter Peak	8.432	-0.002	3436	2257	JP-4 (Tol-C14)	7663827	675
C36	6.590	-0.007	4277	2043	CREOSOT (C8-C22)	18029459	2892
C38	6.933	0.001	4085	1625			
C40	7.367	0.003	3725	1410	BUNKERC (C10-C38)	18044978	2019

64.5%

AZDIESEL (C10-C22)	16566306	1031
AZMOIL (C22-C32)	901564	140

Range Times: NW Diesel(2.945 - 5.228) NW Gas(1.724 - 2.945) NW M.Oil(5.228 - 6.982)  
AK102(2.371 - 5.263) AK103(5.263 - 6.647) Jet A(2.371 - 4.154)

Surrogate	Area	Amount	%Rec
o-Terphenyl	706375	40.8	90.6
Triacontane	647196	38.9	86.4

Analyte	RF	Curve Date
o-Terph Surr	17319.9	11-NOV-2008
Triacon Surr	16652.3	18-NOV-2008
Gas	65383.2	13-NOV-2008
Diesel	15141.0	12-NOV-2008
Motor Oil	11731.0	17-NOV-2008
AK102	18985.0	12-NOV-2008
AK103	10120.0	17-NOV-2008
JP4	11362.0	05-FEB-2007
JetA	16829.6	12-NOV-2008
Min Oil	12823.0	27-JUN-2008
Min Spirit	15825.3	15-APR-2005
OR Diesel	19612.0	
OR M.Oil	10092.0	
Bunker C	8936.8	22-SEP-2008
Creosote	6234.4	08-AUG-2008

Data File: /chem3/fid3a.i/20081117.b/1117a067.d

Date: 18-NOV-2008 05:54

Client ID: NY64LCSDM1

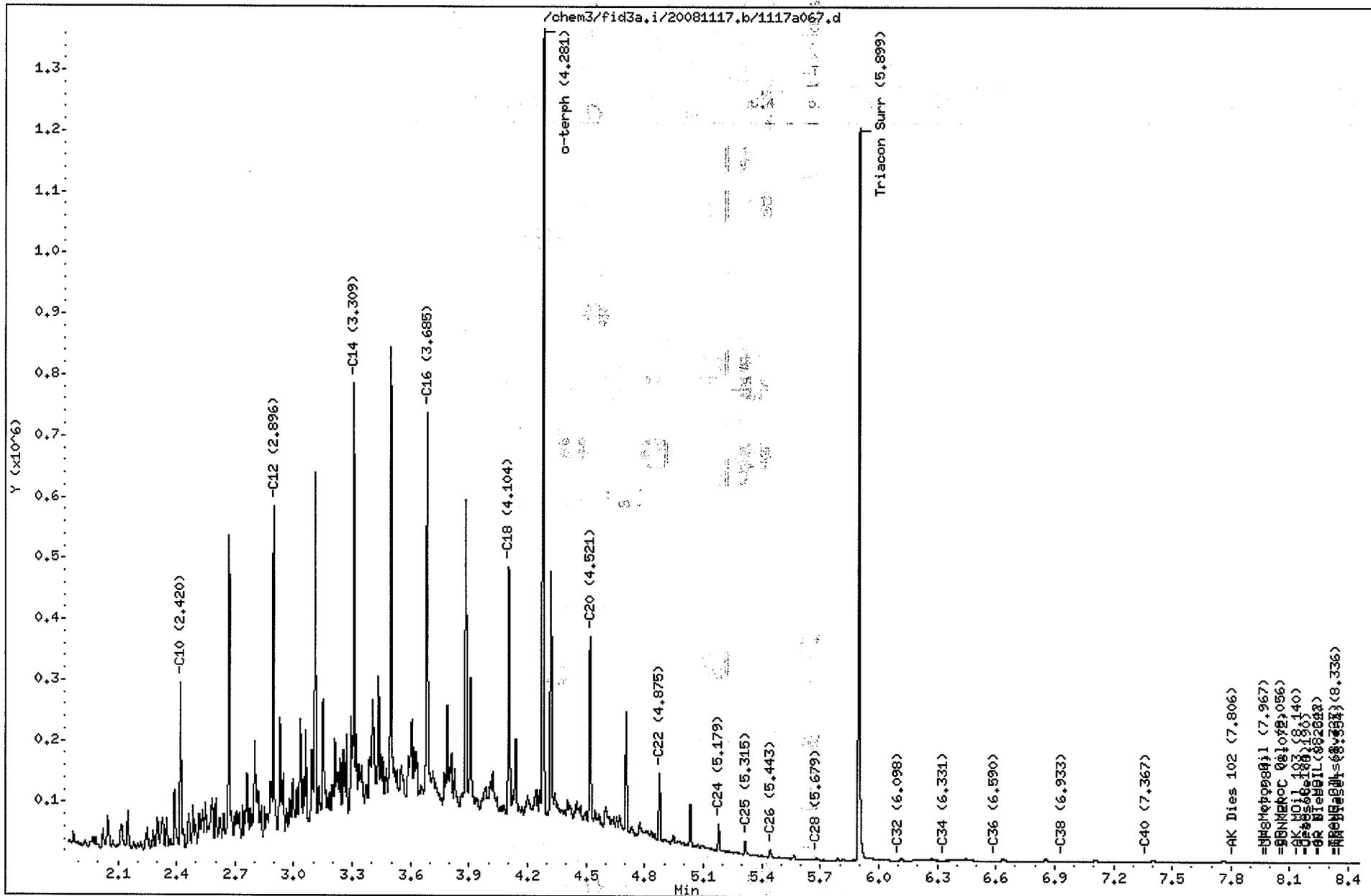
Sample Info: NY64LCSDM1

Instrument: fid3a.i

Operator: ms

Column phase: RTX-1

Column diameter: 0.25



**TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Water  
Date Received: 11/06/08

ARI Job: NY64  
Project: BOEING THOMPSON  
023173

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
08-30270-111408MB1	Method Blank	500 mL	1.00 mL	11/14/08
08-30270-111408LCS1	Lab Control	500 mL	1.00 mL	11/14/08
08-30270-111408LCSD1	Lab Control Dup	500 mL	1.00 mL	11/14/08
08-30270-NY64J	TDP29-GW-081106	500 mL	1.00 mL	11/14/08
08-30271-NY64K	TDP31-GW-081106	500 mL	1.00 mL	11/14/08
08-30272-NY64L	TH-SUMP-081106	500 mL	5.00 mL	11/14/08

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP26-8-081106

SAMPLE

Lab Sample ID: NY64A

LIMS ID: 08-30261

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Percent Total Solids: 79.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	6	7	
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.4	
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.6	20.8	
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.2	36.6	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	12	
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.06	0.06	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP27-11-081106

**SAMPLE**

Lab Sample ID: NY64B

LIMS ID: 08-30262

Matrix: Soil

Data Release Authorized 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Percent Total Solids: 86.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	5	6	
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.5	16.4	
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.2	13.7	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	2	U
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP28-11-081106

SAMPLE

Lab Sample ID: NY64C

LIMS ID: 08-30263

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Percent Total Solids: 77.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	6	6	
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.3	
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.6	17.8	
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.2	20.5	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	4	
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.06	0.06	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP29-11-081106

**SAMPLE**

Lab Sample ID: NY64D

LIMS ID: 08-30264

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Percent Total Solids: 74.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	6	8	
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.7	
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.6	20.4	
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.2	26.2	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	7	
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.06	0.10	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP30-11-081106  
SAMPLE

Lab Sample ID: NY64E

LIMS ID: 08-30265

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Percent Total Solids: 69.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	7	13	
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.3	0.8	
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.7	24.8	
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.3	35.9	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	3	15	
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.05	0.17	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP31-12-081106

SAMPLE

Lab Sample ID: NY64F

LIMS ID: 08-30266

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Percent Total Solids: 79.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	6	9	
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.6	14.7	
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.2	15.9	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	2	
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.05	0.05	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP32-11-081106  
SAMPLE

Lab Sample ID: NY64G  
LIMS ID: 08-30267  
Matrix: Soil  
Data Release Authorized   
Reported: 11/24/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

Percent Total Solids: 89.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	5	5	U
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/14/08	6010B	11/21/08	<b>7440-47-3</b>	<b>Chromium</b>	0.5	<b>29.4</b>	
3050B	11/14/08	6010B	11/21/08	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>20.5</b>	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	2	U
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TH-DRUM1-SOIL  
SAMPLE

Lab Sample ID: NY64M

LIMS ID: 08-30273

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Percent Total Solids: 88.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	5	9	
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.5	23.0	
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.2	22.0	
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	3	
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.04	0.08	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP26-8-081106  
DUPLICATE

Lab Sample ID: NY64A

LIMS ID: 08-30261

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	7	6	15.4%	+/- 6	L
Cadmium	6010B	0.4	0.4	0.0%	+/- 0.2	L
Chromium	6010B	20.8	21.9	5.2%	+/- 20%	
Copper	6010B	36.6	35.3	3.6%	+/- 20%	
Lead	6010B	12	19	45.2%	+/- 20%	*
Mercury	7471A	0.06 U	0.06 U	0.0%	+/- 0.06	L

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: TDP26-8-081106

MATRIX SPIKE

Lab Sample ID: NY64A

LIMS ID: 08-30261

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	7	224	238	91.2%	
Cadmium	6010B	0.4	55.7	59.4	93.1%	
Chromium	6010B	20.8	72.6	59.4	87.2%	
Copper	6010B	36.6	94.9	59.4	98.1%	
Lead	6010B	12	211	238	83.6%	
Mercury	7471A	0.06 U	0.68	0.587	116%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NY64LCS

LIMS ID: 08-30262

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	201	200	100%	
Cadmium	6010B	50.5	50.0	101%	
Chromium	6010B	48.7	50.0	97.4%	
Copper	6010B	48.6	50.0	97.2%	
Lead	6010B	192	200	96.0%	
Mercury	7471A	1.08	1.00	108%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: NY64MB

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30262

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized 

Date Sampled: NA

Reported: 11/24/08

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/08	6010B	11/21/08	7440-38-2	Arsenic	5	5	U
3050B	11/14/08	6010B	11/21/08	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/14/08	6010B	11/21/08	7440-47-3	Chromium	0.5	0.5	U
3050B	11/14/08	6010B	11/21/08	7440-50-8	Copper	0.2	0.2	U
3050B	11/14/08	6010B	11/21/08	7439-92-1	Lead	2	2	U
CLP	11/14/08	7471A	11/21/08	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP26-GW-081106

SAMPLE

Lab Sample ID: NY64H

LIMS ID: 08-30268

Matrix: Water

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.5	1.3	
6010B	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/21/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/21/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP28-GW-081106  
SAMPLE

Lab Sample ID: NY64I

LIMS ID: 08-30269

Matrix: Water

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.2	13.0	
6010B	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/21/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/21/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: TDP29-GW-081106

SAMPLE

Lab Sample ID: NY64J

LIMS ID: 08-30270

Matrix: Water

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.2	5.2	
6010B	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/21/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/21/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

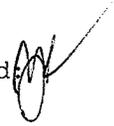
Sample ID: TDP31-GW-081106

**SAMPLE**

Lab Sample ID: NY64K

LIMS ID: 08-30271

Matrix: Water

Data Release Authorized 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.2	3.5	
6010B	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/21/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/21/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: TDP26-GW-081106  
DUPLICATE

Lab Sample ID: NY64H  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized *OR*  
Reported: 11/24/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	1.3	1.4	7.4%	+/- 0.5	L
Cadmium	6010B	2 U	2 U	0.0%	+/- 2	L
Chromium	6010B	5 U	5 U	0.0%	+/- 5	L
Copper	6010B	2 U	2 U	0.0%	+/- 2	L
Lead	200.8	1 U	1 U	0.0%	+/- 1	L
Mercury	7470A	0.1 U	0.1 U	0.0%	+/- 0.1	L

Reported in µg/L

\*-Control Limit Not Met  
L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: TDP26-GW-081106  
MATRIX SPIKE

Lab Sample ID: NY64H  
LIMS ID: 08-30268  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 11/24/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: 11/06/08  
Date Received: 11/06/08

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	1.32	25.1	25.0	95.1%	
Cadmium	6010B	2.00 U	537	500	107%	
Chromium	6010B	5.00 U	498	500	99.6%	
Copper	6010B	2.00 U	494	500	98.8%	
Lead	200.8	1.00 U	23.7	25.0	94.8%	
Mercury	7470A	0.100 U	1.07	1.00	107%	

Reported in µg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NY64LCS  
LIMS ID: 08-30269  
Matrix: Water  
Data Release Authorized:   
Reported: 11/24/08

QC Report No: NY64-The Boeing Company  
Project: BOEING THOMPSON  
023173  
Date Sampled: NA  
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	24.5	25.0	98.0%	
Cadmium	6010B	539	500	108%	
Chromium	6010B	502	500	100%	
Copper	6010B	491	500	98.2%	
Lead	200.8	25	25	100%	
Mercury	7470A	2.1	2.0	105%	

Reported in µg/L

N-Control limit not met  
Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: NY64MB

LIMS ID: 08-30269

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.2	0.2	U
6010B	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	2	2	U
6010B	11/10/08	6010B	11/21/08	7440-47-3	Chromium	5	5	U
6010B	11/10/08	6010B	11/21/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

TOTAL METALS

Page 1 of 1

Sample ID: TH-SUMP-081106

SAMPLE

Lab Sample ID: NY64L

LIMS ID: 08-30272

Matrix: Water

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.2	23.8	
3010A	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	4	58	
3010A	11/10/08	6010B	11/21/08	7440-47-3	Chromium	10	510	
3010A	11/10/08	6010B	11/21/08	7440-50-8	Copper	4	1,950	
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	2	6	
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	2	2	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: TH-DRUM2-WATER  
SAMPLE**

Lab Sample ID: NY64N

LIMS ID: 08-30274

Matrix: Water

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.2	34.5	
3010A	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	2	2	U
3010A	11/10/08	6010B	11/21/08	7440-47-3	Chromium	5	67	
3010A	11/10/08	6010B	11/21/08	7440-50-8	Copper	2	58	
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	1	13	
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U
3010A	11/10/08	6010B	11/21/08	7440-02-0	Nickel	10	40	
3010A	11/10/08	6010B	11/21/08	7440-22-4	Silver	3	3	U
3010A	11/10/08	6010B	11/21/08	7440-66-6	Zinc	10	140	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: NY64LCS

LIMS ID: 08-30274

Matrix: Water

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	24.5	25.0	98.0%	
Cadmium	6010B	518	500	104%	
Chromium	6010B	505	500	101%	
Copper	6010B	500	500	100%	
Lead	200.8	24	25	96.0%	
Mercury	7470A	2.1	2.0	105%	
Nickel	6010B	510	500	102%	
Silver	6010B	491	500	98.2%	
Zinc	6010B	500	500	100%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: NY64MB

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30274

Project: BOEING THOMPSON

Matrix: Water

023173

Data Release Authorized 

Date Sampled: NA

Reported: 11/24/08

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	11/10/08	200.8	11/19/08	7440-38-2	Arsenic	0.2	0.2	U
3010A	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	2	2	U
3010A	11/10/08	6010B	11/21/08	7440-47-3	Chromium	5	5	U
3010A	11/10/08	6010B	11/21/08	7440-50-8	Copper	2	2	U
200.8	11/10/08	200.8	11/20/08	7439-92-1	Lead	1	1	U
7470A	11/10/08	7470A	11/17/08	7439-97-6	Mercury	0.1	0.1	U
3010A	11/10/08	6010B	11/21/08	7440-02-0	Nickel	10	10	U
3010A	11/10/08	6010B	11/21/08	7440-22-4	Silver	3	3	U
3010A	11/10/08	6010B	11/21/08	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TCLP METALS

Page 1 of 1

Sample ID: TH-DRUM-1-SOIL  
SAMPLE

Lab Sample ID: NY64P

LIMS ID: 08-30329

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	11/10/08	6010B	11/21/08	7440-38-2	Arsenic	0.2	0.2	U
1311	11/10/08	6010B	11/21/08	<b>7440-39-3</b>	<b>Barium</b>	0.02	<b>0.11</b>	
1311	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	0.01	0.01	U
1311	11/10/08	6010B	11/21/08	7440-47-3	Chromium	0.02	0.02	U
1311	11/10/08	6010B	11/21/08	7439-92-1	Lead	0.1	0.1	U
1311	11/12/08	7470A	11/17/08	7439-97-6	Mercury	0.0001	0.0001	U
1311	11/10/08	6010B	11/21/08	7782-49-2	Selenium	0.2	0.2	U
1311	11/10/08	6010B	11/21/08	7440-22-4	Silver	0.02	0.02	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**TCLP METALS**  
 Page 1 of 1

**Sample ID: TH-DRUM-1-SOIL  
 DUPLICATE**

Lab Sample ID: NY64P  
 LIMS ID: 08-30329  
 Matrix: Soil  
 Data Release Authorized *[Signature]*  
 Reported: 11/24/08

QC Report No: NY64-The Boeing Company  
 Project: BOEING THOMPSON  
 023173  
 Date Sampled: 11/06/08  
 Date Received: 11/06/08

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L
Barium	6010B	0.11	0.11	0.0%	+/- 20%	
Cadmium	6010B	0.01 U	0.01 U	0.0%	+/- 0.01	L
Chromium	6010B	0.02 U	0.02 U	0.0%	+/- 0.02	L
Lead	6010B	0.1 U	0.1 U	0.0%	+/- 0.1	L
Mercury	7470A	0.0001 U	0.0001 U	0.0%	+/- 0.0001	L
Selenium	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L
Silver	6010B	0.02 U	0.02 U	0.0%	+/- 0.02	L

Reported in mg/L

\*-Control Limit Not Met  
 L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**

Page 1 of 1

**Sample ID: TH-DRUM-1-SOIL  
MATRIX SPIKE**

Lab Sample ID: NY64P

LIMS ID: 08-30329

Matrix: Soil

Data Release Authorized: 

Reported: 11/24/08

QC Report No: NY64-The Boeing Company

Project: BOEING THOMPSON

023173

Date Sampled: 11/06/08

Date Received: 11/06/08

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	0.2 U	10.6	10.0	106%	
Barium	6010B	0.11	9.57	10.0	94.6%	
Cadmium	6010B	0.01 U	2.58	2.50	103%	
Chromium	6010B	0.02 U	2.43	2.50	97.2%	
Lead	6010B	0.1 U	9.6	10.0	96.0%	
Mercury	7470A	0.0001 U	0.0011	0.0010	110%	
Selenium	6010B	0.2 U	10.9	10.0	109%	
Silver	6010B	0.02 U	2.37	2.50	94.8%	

Reported in mg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TCLP METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: NY64MB

QC Report No: NY64-The Boeing Company

LIMS ID: 08-30329

Project: BOEING THOMPSON

Matrix: Soil

023173

Data Release Authorized: 

Date Sampled: NA

Reported: 11/24/08

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	11/10/08	6010B	11/21/08	7440-38-2	Arsenic	0.2	0.2	U
1311	11/10/08	6010B	11/21/08	<b>7440-39-3</b>	<b>Barium</b>	0.02	<b>0.03</b>	
1311	11/10/08	6010B	11/21/08	7440-43-9	Cadmium	0.01	0.01	U
1311	11/10/08	6010B	11/21/08	7440-47-3	Chromium	0.02	0.02	U
1311	11/10/08	6010B	11/21/08	7439-92-1	Lead	0.1	0.1	U
1311	11/12/08	7470A	11/17/08	7439-97-6	Mercury	0.0001	0.0001	U
1311	11/10/08	6010B	11/21/08	7782-49-2	Selenium	0.2	0.2	U
1311	11/10/08	6010B	11/21/08	7440-22-4	Silver	0.02	0.02	U

U-Analyte undetected at given RL

RL-Reporting Limit



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

December 3, 2008

Tim Syverson  
Landau Associates, Inc.  
130 Second Ave  
Edmonds, WA 98020

**RE: Project: Boeing Thompson, 025173.070.072**  
**ARI Job No.: OB27**

Dear Tim:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, the analytical results for the above referenced project. Analytical Resources, Inc. (ARI) accepted thirteen wipe samples on November 21, 2008. The cooler was received with a temperature of 12.6°C. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for PCBs, as requested on the COC.

The undetected result for Aroclor 1248 for sample **COMP2-WIPE-081121** was raised and "Y" flagged due to interference from the matrix.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

# Chain-of-Custody Record

Project Name Boeing Thompson Project No. 025123.010.012  
 Project Location/Event Seattle, WA  
 Sampler's Name Ken Reid  
 Project Contact Ken Reid / Kathryn Hartley  
 Send Results To Aune Helversen / " "

## Testing Parameters

Turnaround Time

- Standard  
 Accelerated  
 \_\_\_\_\_

Sample I.D.	Date	Time	Matrix	No. of Containers	PCBs	Testing Parameters	Observations/Comments
Line 1 - wipe - 081121	11/21/08	0925	wipe	1	Y		___ Allow water samples to settle, collect aliquot from clear portion
Line 2 - wipe - 081121	11/21/08	0940	wipe	1	Y		NWTPH-Dx: ___ run acid wash/silica gel cleanup ___ run samples standardized to _____ product
Line 3 - wipe - 081121	↓	0945	↓	1	Y		___ Analyze for EPH if no specific product identified
Line 4 - wipe - 081121	↓	0950	↓	1	Y		VOC/BTEX/VPH (soil): ___ non-preserved ___ preserved w/methanol ___ preserved w/sodium bisulfate ___ Freeze upon receipt
Line 5 - ↓ - ↓	↓	0955	↓	1	Y		___ Dissolved metal water samples field filtered
Line 6 - ↓ - ↓	↓	1005	↓	1	Y		Other _____
Line 7 - ↓ - ↓	↓	1010	↓	1	Y		
Line 8 - ↓ - ↓	↓	1035	↓	1	Y		
Line 9 - ↓ - ↓	↓	1040	↓	1	Y		
Line 10 - ↓ - ↓	↓	1055	↓	1	Y		
Line 11 - ↓ - ↓	↓	1110	↓	1	Y		
Comp 1 - wipe - 081121	↓	1120	↓	1	Y		
Comp 2 - wipe - 081121	↓	1125	↓	1	Y		

Special Shipment/Handling or Storage Requirements none (no ice required)

Method of Shipment LTI drop off

**Relinquished by**  
 Signature [Signature]  
 Printed Name Ken Reid  
 Company Landau  
 Date 11/21/08 Time 1125

**Received by**  
 Signature [Signature]  
 Printed Name Kathryn Hartley  
 Company Landau  
 Date 11/21/08 Time 1125

**Relinquished by**  
 Signature [Signature]  
 Printed Name Kathryn Hartley  
 Company Landau  
 Date 11/21/08 Time 1200

**Received by**  
 Signature [Signature]  
 Printed Name A. Vørgardsen  
 Company AEI  
 Date 11/21/08 Time 1200



# Cooler Receipt Form

ARI Client: Boeing  
 VOC No: \_\_\_\_\_  
 Assigned ARI Job No: 0B27

Project Name: Boeing Thompson  
 Delivered by: Hand  
 Tracking No: \_\_\_\_\_

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO   
 Were custody papers included with the cooler? YES  NO   
 Were custody papers properly filled out (ink, signed, etc.) YES  NO   
 Record cooler temperature (recommended 2.0-6.0 °C for chemistry) 12.6 °C

Cooler Accepted by: AV Date: 11/21/08 Time: 12:00  
 Complete custody forms and attach all shipping documents

**Log-In Phase:**

Was a temperature blank included in the cooler? YES  NO   
 What kind of packing material was used? Box  
 Was sufficient ice used (if appropriate)? YES  NO   
 Were all bottles sealed in individual plastic bags? YES  NO   
 Did all bottle arrive in good condition (unbroken)? YES  NO   
 Were all bottle labels complete and legible? YES  NO   
 Did all bottle labels and tags agree with custody papers? YES  NO   
 Were all bottles used correct for the requested analyses? YES  NO   
 Do any of the analyses (bottles) require preservation? (attach preservation checklist) YES  NO   
 Were all VOC vials free of air bubbles? NA  YES  NO   
 Was sufficient amount of sample sent in each bottle? YES  NO

Samples Logged by: JH Date: 11.22.08 Time: 11:35

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

Explain discrepancies or negative responses:

By: \_\_\_\_\_ Date: \_\_\_\_\_

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE1-WIPE-081121  
SAMPLE

Lab Sample ID: OB27A  
LIMS ID: 08-31710  
Matrix: Wipe  
Data Release Authorized: *AS*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 13:37  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.0%
Tetrachlorometaxylene	91.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE2-WIPE-081121  
SAMPLE

Lab Sample ID: OB27B  
LIMS ID: 08-31711  
Matrix: Wipe  
Data Release Authorized:   
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 13:54  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	91.5%
Tetrachlorometaxylene	89.2%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE3-WIPE-081121  
SAMPLE

Lab Sample ID: OB27C  
LIMS ID: 08-31712  
Matrix: Wipe  
Data Release Authorized: *[Signature]*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 14:11  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	85.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE4-WIPE-081121  
SAMPLE

Lab Sample ID: OB27D  
LIMS ID: 08-31713  
Matrix: Wipe  
Data Release Authorized:   
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 14:28  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	84.2%
Tetrachlorometaxylene	87.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE5-WIPE-081121  
SAMPLE

Lab Sample ID: OB27E  
LIMS ID: 08-31714  
Matrix: Wipe  
Data Release Authorized: *AB*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 14:45  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	90.8%
Tetrachlorometaxylene	85.2%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE6-WIPE-081121  
SAMPLE

Lab Sample ID: OB27F  
LIMS ID: 08-31715  
Matrix: Wipe  
Data Release Authorized:   
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 15:02  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	85.5%
Tetrachlorometaxylene	84.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE7-WIPE-081121  
SAMPLE

Lab Sample ID: OB27G  
LIMS ID: 08-31716  
Matrix: Wipe  
Data Release Authorized:   
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 15:19  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	94.0%
Tetrachlorometaxylene	92.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE8-WIPE-081121  
SAMPLE

Lab Sample ID: OB27H  
LIMS ID: 08-31717  
Matrix: Wipe  
Data Release Authorized:   
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 16:44  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	89.8%
Tetrachlorometaxylene	92.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE9-WIPE-081121  
SAMPLE

Lab Sample ID: OB27I  
LIMS ID: 08-31718  
Matrix: Wipe  
Data Release Authorized: *AS*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 17:01  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.0%
Tetrachlorometaxylene	86.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE10-WIPE-081121  
SAMPLE

Lab Sample ID: OB27J  
LIMS ID: 08-31719  
Matrix: Wipe  
Data Release Authorized: *AS*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/22/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 17:18  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	94.2%
Tetrachlorometaxylene	94.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LINE11-WIPE-081121  
SAMPLE

Lab Sample ID: OB27K  
LIMS ID: 08-31720  
Matrix: Wipe  
Data Release Authorized:   
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/22/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 17:35  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.2%
Tetrachlorometaxylene	92.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: COMP1-WIPE-081121  
SAMPLE

Lab Sample ID: OB27L  
LIMS ID: 08-31721  
Matrix: Wipe  
Data Release Authorized: *AS*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/22/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 17:52  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 5.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	5.0	< 5.0 U
53469-21-9	Aroclor 1242	5.0	< 5.0 U
12672-29-6	Aroclor 1248	5.0	< 5.0 U
<b>11097-69-1</b>	<b>Aroclor 1254</b>	<b>5.0</b>	<b>5.5</b>
11096-82-5	Aroclor 1260	5.0	< 5.0 U
11104-28-2	Aroclor 1221	5.0	< 5.0 U
11141-16-5	Aroclor 1232	5.0	< 5.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	109%
Tetrachlorometaxylene	111%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: COMP2-WIPE-081121  
SAMPLE

Lab Sample ID: OB27M  
LIMS ID: 08-31722  
Matrix: Wipe  
Data Release Authorized: *AB*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/22/08

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 18:09  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 5.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	5.0	< 5.0 U
53469-21-9	Aroclor 1242	5.0	< 5.0 U
12672-29-6	Aroclor 1248	5.0	< 7.5 Y
11097-69-1	<b>Aroclor 1254</b>	<b>5.0</b>	<b>10</b>
11096-82-5	Aroclor 1260	5.0	< 5.0 U
11104-28-2	Aroclor 1221	5.0	< 5.0 U
11141-16-5	Aroclor 1232	5.0	< 5.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	102%
Tetrachlorometaxylene	101%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: MB-112608  
METHOD BLANK

Lab Sample ID: MB-112608  
LIMS ID: 08-31710  
Matrix: Wipe  
Data Release Authorized: *[Signature]*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: NA  
Date Received: NA

Date Extracted: 11/26/08  
Date Analyzed: 12/02/08 12:46  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes

Sample Amount: 1.00 Wipe  
Final Extract Volume: 10 mL  
Dilution Factor: 1.00  
Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total  $\mu$ g

**PCB Surrogate Recovery**

Decachlorobiphenyl	93.0%
Tetrachlorometaxylene	93.5%

SW8082/PCB WIPES SURROGATE RECOVERY SUMMARY

Matrix: Wipe

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072

Client ID	DCBP	TCMX	TOT OUT
MB-112608	93.0%	93.5%	0
LCS-112608	94.2%	94.5%	0
LCS-112608	94.5%	93.5%	0
LINE1-WIPE-081121	88.0%	91.5%	0
LINE2-WIPE-081121	91.5%	89.2%	0
LINE3-WIPE-081121	87.5%	85.8%	0
LINE4-WIPE-081121	84.2%	87.0%	0
LINE5-WIPE-081121	90.8%	85.2%	0
LINE6-WIPE-081121	85.5%	84.5%	0
LINE7-WIPE-081121	94.0%	92.5%	0
LINE8-WIPE-081121	89.8%	92.5%	0
LINE9-WIPE-081121	88.0%	86.0%	0
LINE10-WIPE-081121	94.2%	94.8%	0
LINE11-WIPE-081121	88.2%	92.8%	0
COMP1-WIPE-081121	109%	111%	0
COMP2-WIPE-081121	102%	101%	0

LCS/MB LIMITS      QC LIMITS

(DCBP) = Decachlorobiphenyl      (30-160)      (30-160)  
(TCMX) = Tetrachlorometaxylene      (30-160)      (30-160)

Prep Method: SW3580A  
Log Number Range: 08-31710 to 08-31722

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-112608  
LCS/LCSD

Lab Sample ID: LCS-112608  
LIMS ID: 08-31710  
Matrix: Wipe  
Data Release Authorized: *[Signature]*  
Reported: 12/03/08

QC Report No: OB27-Landau Associates, Inc.  
Project: BOEING THOMPSON  
025173.070.072  
Date Sampled: 11/21/08  
Date Received: 11/21/08

Date Extracted LCS/LCSD: 11/26/08

Sample Amount LCS: 1.00 Wipe  
LCSD: 1.00 Wipe

Date Analyzed LCS: 12/02/08 13:03  
LCSD: 12/02/08 13:20

Final Extract Volume LCS: 10 mL  
LCSD: 10 mL

Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: No  
Sulfur Cleanup: Yes

Silica Gel: No  
Acid Cleanup: Yes

Analyte	LCS		LCS		LCSD		RPD
	LCS	Spike Added-LCS	Recovery	LCS	LCS	Recovery	
Aroclor 1016	4.6	5.0	92.0%	4.4	5.0	88.0%	4.4%
Aroclor 1260	5.2	5.0	104%	5.2	5.0	104%	0.0%

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	94.2%	94.5%
Tetrachlorometaxylene	94.5%	93.5%

Reported in Total  $\mu\text{g}$   
RPD calculated using sample concentrations per SW846.



## Analytical Resources, Incorporated

Analytical Chemists and Consultants  
February 23, 2009

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Isaacson – Phase 2 025173.090**  
**ARI Job: OK85**

Dear Kathryn:

Enclosed, please find the original and revised copy of the Chain-of-Custody (COC) record, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted ten water samples, eighteen soil samples and trip blank in good condition on February 2, 2009. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM cPAHs, PCBs, NWTPH-HCID, and Total and Dissolved Metals, as requested on the COC.

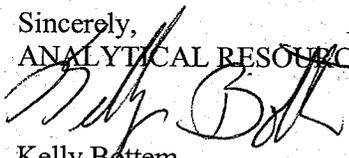
Several LCS and LCSD percent recoveries were outside of the control limits both low and high for the soil and water SVOC analyses. No further corrective action was taken.

The SIM cPAHs method blank surrogate MNP is out of control low. The surrogate MNP is not associated with the cPAHs and no further corrective action was taken as all other QC is in control.

The total metals method blank contained zinc. All associated sample zinc concentrations were greater than five times the concentration found in the method blank and no further corrective action was taken.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC



Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

KB/co  
Enclosures





- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

Date 2/2/09  
Page 2 of 2

## Chain-of-Custody Record

Project Name Boeing Base Project No. 0250173.010

Project Location/Event Tukwila Phase II

Sampler's Name E Poole / M Brunner

Project Contact K Hartley

Send Results To K Hartley, K Hendrickson, A Hakson

### Testing Parameters

Turnaround Time

Standard

Accelerated

\_\_\_\_\_

AS  
SOC3

Sample I.D.	Date	Time	Matrix	No. of Containers	Observations/Comments
IDP-5-11-090202	020209	1400	S	1	
IDP-6-4-090202		1500		1	
IDP-6-8-090202		1500		1	
IDP-6-12-090202		1505		1	
IDP-1A-GW-090202		1017	W		
IDP-2-GW-090202		1110			
IDP-3-GW-090202		1130			
IDP-4-GW-090202		1320			
IDP-5-GW-090202		1430			
IDP-6-GW-090202		1520			
TB					

\_\_\_ Allow water samples to settle, collect aliquot from clear portion

NWTPH-Dx:

\_\_\_ run acid wash/silica gel cleanup

\_\_\_ run samples standardized to \_\_\_\_\_ product

\_\_\_ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):

\_\_\_ non-preserved

\_\_\_ preserved w/methanol

\_\_\_ preserved w/sodium bisulfate

\_\_\_ Freeze upon receipt

Dissolved metal water samples field filtered

Other \_\_\_\_\_

Special Shipment/Handling or Storage Requirements \_\_\_\_\_

Method of Shipment \_\_\_\_\_

<p><b>Relinquished by</b></p> <p><u>E Poole</u></p> <p>Signature _____</p> <p><u>Elizabeth Poole</u></p> <p>Printed Name _____</p> <p><u>Landau</u></p> <p>Company _____</p> <p>Date <u>2/2/09</u> Time <u>1625</u></p>	<p><b>Received by</b></p> <p><u>Gami Hayes</u></p> <p>Signature _____</p> <p><u>Gami Hayes</u></p> <p>Printed Name _____</p> <p><u>ARI</u></p> <p>Company _____</p> <p>Date <u>2/2/09</u> Time <u>1625</u></p>	<p><b>Relinquished by</b></p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Company _____</p> <p>Date _____ Time _____</p>	<p><b>Received by</b></p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Company _____</p> <p>Date _____ Time _____</p>
---	--	--	--



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

Date 2/2/09  
Page 1 of 2

## Chain-of-Custody Record

Project Name: Boeing Isarcon Project No: 025173.090  
 Project Location/Event: Pukwila Phase II  
 Sampler's Name: Elizabeth Poole / Mark Brunner  
 Project Contact: Kathryn Hardy, Katie Lewis  
 Send Results To: K Hardy, K Brunner, A Johnson

### Testing Parameters

Turnaround Time  
 Standard  
 Accelerated  
 \_\_\_\_\_

Sample I.D.	Date	Time	Matrix	No. of Containers	ACTM	PAHs	SVOC	VOC	D5 Metals	CPAHs-SIN	AS	AS HCHH	Observations/Comments
PZ-7-090202	020209	0957	W	15	X	X	X	X	X	X	X	X	<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal-water samples field filtered other Metals: <u>As, Cadmium, Cr, Cu, Pb, Hg, Zinc</u>
I-104-090202		1130		1	X	X	X	X	X	X	X	X	
PZ-1-090202		1430		1	X	X	X	X	X	X	X	X	
I-104-090202		1550	V	1	X	X	X	X	X	X	X	X	
IDP-1-4-090202		925	S	1								X	
IDP-1A-9-090202		930										X	
IDP-1A-14-090202		1000										X	
IDP-2-4-090202		1035										X	
IDP-2-8-090202		1045										X	
IDP-2-11-090202		1055										X	
IDP-3-4-090202		1125										X	
IDP-3-8-090202		1130										X	
IDP-3-11-090202		1135										X	
IDP-4-4-090202		1220										X	
IDP-4-8-090202		1230										X	
IDP-4-11-090202		1235										X	
IDP-5-4-090202		1350										X	
IDP-5-8-090202		1355										X	

Special Shipment/Handling or Storage Requirements		Method of Shipment	
Relinquished by <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>Landau</u> Company Date <u>2/2/09</u> Time <u>1625</u>	Received by <u>Dami Hayes</u> Signature <u>Dami Hayes</u> Printed Name <u>ACI</u> Company Date <u>2/2/09</u> Time <u>1635</u>	Relinquished by Signature Printed Name Company Date _____ Time _____	Received by Signature Printed Name Company Date _____ Time _____



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2498
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- 

# Chain-of-Custody Record

Date 2/2/09  
Page 2 of 2

*added 8/18/09 by KPH*

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters										Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/>	Observations/Comments	
					As	VOCs	PCBs	SVOCs	Metals								
IDP 5-11-090202	02/02/09	1405	S	1	X												X Allow water samples to settle, collect aliquot from clear portion
IDP 6-4-090202		1508		1	X												NWTPH-Dx: ___ run acid wash/silica gel cleanup ___ run samples standardized to ___ product
IDP 6-8-090202		1508			X			X	X	X							___ Analyze for EPH if no specific product identified
IDP 6-12-090202		1305			X			X	X	X							VOC/BTEX/VPH (soil): ___ non-preserved ___ preserved w/methanol ___ preserved w/sodium bisulfate ___ Freeze upon receipt
IDP 1A-GW-090202		1017	W			X											X Dissolved metal water samples field filtered
IDP 2-GW-090202		1110				X											Other Metals = As, Cd, Cr, Cu, Pb, Hg, Zn
IDP 3-GW-090202		1150				X											
IDP 4-GW-090202		1320				X											
IDP 5-GW-090202		1430				X											
IDP 6-GW-090202		1520				X											
TR				2				X									

*KPH 8/18/09*

*added 2/19/09 KPH*

Special Shipment/Handling or Storage Requirements		Method of Shipment	
<b>Relinquished by</b> Signature: <u>[Signature]</u> Printed Name: <u>Elizabeth Poole</u> Company: <u>Landau</u> Date: <u>2/2/09</u> Time: <u>1625</u>	<b>Received by</b> Signature: <u>[Signature]</u> Printed Name: <u>Chami Hayes</u> Company: <u>ARS</u> Date: <u>2/2/09</u> Time: <u>1625</u>	<b>Relinquished by</b> Signature: _____ Printed Name: _____ Company: _____ Date: _____ Time: _____	<b>Received by</b> Signature: _____ Printed Name: _____ Company: _____ Date: _____ Time: _____



# Cooler Receipt Form

ARI Client: Boeing Isaccson  
COC No: \_\_\_\_\_  
Assigned ARI Job No: \_\_\_\_\_

Project Name: \_\_\_\_\_  
Delivered by: Hand  
Tracking No: \_\_\_\_\_

**Preliminary Examination Phase:**

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? ..... YES  NO
- Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) ..... 7.4 °C

Cooler Accepted by: AV Date: 2/2/09 Time: 0:8

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

- Was a temperature blank included in the cooler? ..... YES  NO
- What kind of packing material was used? ..... BW
- Was sufficient ice used (if appropriate)? ..... YES  NO
- Were all bottles sealed in individual plastic bags? ..... YES  NO
- Did all bottle arrive in good condition (unbroken)? ..... YES  NO
- Were all bottle labels complete and legible? ..... YES  NO
- Did all bottle labels and tags agree with custody papers? ..... YES  NO
- Were all bottles used correct for the requested analyses? ..... YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) ..... YES  NO
- Were all VOC vials free of air bubbles? ..... NA YES  NO
- Was sufficient amount of sample sent in each bottle? ..... YES  NO

Samples Logged by: MM Date: 2/3/09 Time: 849

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

**Explain discrepancies or negative responses:**

Coc reads 1 Trip Blank, but 2 Trip Blanks were found in cooler.

Revised coc sent  
2/3/09

By: MM

Date: 2-3-09

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: PZ-7-090202  
SAMPLELab Sample ID: OK85A  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized:   
Reported: 02/10/09QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 15:08  
Instrument/Analyst: NT4/LJRSample Amount: 500 mL  
Final Extract Volume: 0.50 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-7-090202  
SAMPLE

Lab Sample ID: OK85A  
LIMS ID: 09-3269  
Matrix: Water  
Date Analyzed: 02/06/09 15:08

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in µg/L (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.8%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	84.4%	d4-1,2-Dichlorobenzene	67.2%
d5-Phenol	37.9%	2-Fluorophenol	51.7%
2,4,6-Tribromophenol	74.7%	d4-2-Chlorophenol	72.3%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: I-104-090202  
SAMPLELab Sample ID: OK85B  
LIMS ID: 09-3270  
Matrix: Water  
Data Release Authorized:   
Reported: 02/10/09QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 15:43  
Instrument/Analyst: NT4/LJRSample Amount: 500 mL  
Final Extract Volume: 0.50 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
77-47-6	2-Methylnaphthalene	1.0	< 1.0 U
91-57-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-104-090202  
SAMPLE

Lab Sample ID: OK85B  
LIMS ID: 09-3270  
Matrix: Water  
Date Analyzed: 02/06/09 15:43

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	68.4%	2-Fluorobiphenyl	70.0%
d14-p-Terphenyl	75.2%	d4-1,2-Dichlorobenzene	62.8%
d5-Phenol	35.7%	2-Fluorophenol	49.9%
2,4,6-Tribromophenol	76.5%	d4-2-Chlorophenol	68.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 16:17  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Date Analyzed: 02/06/09 16:17

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.0%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	87.2%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	37.1%	2-Fluorophenol	51.2%
2,4,6-Tribromophenol	80.5%	d4-2-Chlorophenol	72.0%

Sample ID: I-1044-090202  
SAMPLE

Lab Sample ID: OK85D  
LIMS ID: 09-3272  
Matrix: Water  
Data Release Authorized:   
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 16:52  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

Lab Sample ID: OK85D  
 LIMS ID: 09-3272  
 Matrix: Water  
 Date Analyzed: 02/06/09 16:52

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	76.8%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	35.7%	2-Fluorophenol	49.3%
2,4,6-Tribromophenol	73.1%	d4-2-Chlorophenol	67.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-020409  
METHOD BLANK

Lab Sample ID: MB-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *AS*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 12:51  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-020409  
METHOD BLANK

Lab Sample ID: MB-020409  
LIMS ID: 09-3269  
Matrix: Water  
Date Analyzed: 02/06/09 12:51

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	69.2%	2-Fluorobiphenyl	71.2%
d14-p-Terphenyl	88.8%	d4-1,2-Dichlorobenzene	69.6%
d5-Phenol	41.9%	2-Fluorophenol	56.0%
2,4,6-Tribromophenol	73.6%	d4-2-Chlorophenol	73.3%

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-020409	69.2%	71.2%	88.8%	69.6%	41.9%	56.0%	73.6%	73.3%	0	
LCS-020409	70.8%	71.2%	83.6%	74.0%	42.9%	58.9%	75.2%	77.6%	0	
LCSD-020409	73.6%	74.8%	86.0%	75.2%	43.5%	60.0%	80.0%	79.5%	0	
PZ-7-090202	70.8%	72.4%	84.4%	67.2%	37.9%	51.7%	74.7%	72.3%	0	
I-104-090202	68.4%	70.0%	75.2%	62.8%	35.7%	49.9%	76.5%	68.5%	0	
PZ-1-090202	70.0%	73.6%	87.2%	65.6%	37.1%	51.2%	80.5%	72.0%	0	
I-1044-090202	66.0%	68.0%	76.8%	62.0%	35.7%	49.3%	73.1%	67.7%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(50-104)	(45-98)
(FBP) = 2-Fluorobiphenyl	(49-98)	(53-89)
(TPH) = d14-p-Terphenyl	(48-120)	(46-119)
(DCB) = d4-1,2-Dichlorobenzene	(40-92)	(41-87)
(PHL) = d5-Phenol	(20-62)	(10-66)
(2FP) = 2-Fluorophenol	(17-98)	(23-74)
(TBP) = 2,4,6-Tribromophenol	(56-110)	(51-105)
(2CP) = d4-2-Chlorophenol	(51-97)	(42-93)

Prep Method: SW3510C  
Log Number Range: 09-3269 to 09-3272

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-020409  
LCS/LCSD

Lab Sample ID: LCS-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted LCS/LCSD: 02/04/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/06/09 13:25

Final Extract Volume LCS: 0.50 mL

LCSD: 02/06/09 14:00

LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR

Dilution Factor LCS: 1.00

LCSD: NT4/LJR

LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	10.4	25.0	41.6%	10.8	25.0	43.2%	3.8%
Bis-(2-Chloroethyl) Ether	20.3	25.0	81.2%	21.6	25.0	86.4%	6.2%
2-Chlorophenol	20.0	25.0	80.0%	21.0	25.0	84.0%	4.9%
1,3-Dichlorobenzene	19.4	25.0	77.6%	20.4	25.0	81.6%	5.0%
1,4-Dichlorobenzene	19.4	25.0	77.6%	20.4	25.0	81.6%	5.0%
Benzyl Alcohol	26.8	50.0	53.6%	28.7	50.0	57.4%	6.8%
1,2-Dichlorobenzene	20.0	25.0	80.0%	21.5	25.0	86.0%	7.2%
2-Methylphenol	19.5	25.0	78.0%	20.7	25.0	82.8%	6.0%
2,2'-Oxybis(1-Chloropropane)	16.5	25.0	66.0%	17.4	25.0	69.6%	5.3%
4-Methylphenol	38.6	50.0	77.2%	40.9	50.0	81.8%	5.8%
N-Nitroso-Di-N-Propylamine	19.4	25.0	77.6%	20.4	25.0	81.6%	5.0%
Hexachloroethane	19.7	25.0	78.8%	20.9	25.0	83.6%	5.9%
Nitrobenzene	18.6	25.0	74.4%	20.1	25.0	80.4%	7.8%
Isophorone	20.6	25.0	82.4%	22.1	25.0	88.4%	7.0%
2-Nitrophenol	19.7	25.0	78.8%	21.6	25.0	86.4%	9.2%
2,4-Dimethylphenol	17.6	25.0	70.4%	18.8	25.0	75.2%	6.6%
Benzoic Acid	30.9	75.0	41.2%	33.9	75.0	45.2%	9.3%
bis(2-Chloroethoxy) Methane	20.0	25.0	80.0%	21.9	25.0	87.6%	9.1%
2,4-Dichlorophenol	20.2	25.0	80.8%	22.0	25.0	88.0%	8.5%
1,2,4-Trichlorobenzene	18.8	25.0	75.2%	20.3	25.0	81.2%	7.7%
Naphthalene	19.9	25.0	79.6%	21.4	25.0	85.6%	7.3%
4-Chloroaniline	3.8	60.0	6.3%	4.2	60.0	7.0%	10.6%
Hexachlorobutadiene	18.9	25.0	75.6%	20.3	25.0	81.2%	7.1%
4-Chloro-3-methylphenol	20.3	25.0	81.2%	21.8	25.0	87.2%	7.1%
2-Methylnaphthalene	19.8	25.0	79.2%	21.2	25.0	84.8%	6.8%
Hexachlorocyclopentadiene	78.8	75.0	105%	84.3	75.0	112%	6.7%
2,4,6-Trichlorophenol	20.2	25.0	80.8%	21.6	25.0	86.4%	6.7%
2,4,5-Trichlorophenol	20.4	25.0	81.6%	21.0	25.0	84.0%	2.9%
2-Chloronaphthalene	20.4	25.0	81.6%	21.8	25.0	87.2%	6.6%
2-Nitroaniline	19.3	25.0	77.2%	20.6	25.0	82.4%	6.5%
Dimethylphthalate	21.0	25.0	84.0%	22.5	25.0	90.0%	6.9%
Acenaphthylene	20.9	25.0	83.6%	22.6	25.0	90.4%	7.8%
3-Nitroaniline	40.3	64.0	63.0%	42.7	64.0	66.7%	5.8%
Acenaphthene	20.3	25.0	81.2%	21.9	25.0	87.6%	7.6%
2,4-Dinitrophenol	64.5	75.0	86.0%	71.5	75.0	95.3%	10.3%
4-Nitrophenol	10.6	25.0	42.4%	11.5	25.0	46.0%	8.1%
Dibenzofuran	20.5	25.0	82.0%	22.0	25.0	88.0%	7.1%
2,6-Dinitrotoluene	20.6	25.0	82.4%	21.5	25.0	86.0%	4.3%
2,4-Dinitrotoluene	20.4	25.0	81.6%	21.9	25.0	87.6%	7.1%
Diethylphthalate	21.0	25.0	84.0%	22.3	25.0	89.2%	6.0%
4-Chlorophenyl-phenylether	19.9	25.0	79.6%	21.3	25.0	85.2%	6.8%
Fluorene	21.1	25.0	84.4%	22.4	25.0	89.6%	6.0%
4-Nitroaniline	19.1	25.0	76.4%	20.6	25.0	82.4%	7.6%
4,6-Dinitro-2-Methylphenol	67.0	75.0	89.3%	72.6	75.0	96.8%	8.0%
N-Nitrosodiphenylamine	21.3	25.0	85.2%	22.8	25.0	91.2%	6.8%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-020409  
LCS/LCSD

Lab Sample ID: LCS-020409  
LIMS ID: 09-3269  
Matrix: Water  
Date Analyzed: 02/06/09 13:25

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	20.4	25.0	81.6%	21.6	25.0	86.4%	5.7%
Hexachlorobenzene	21.0	25.0	84.0%	22.4	25.0	89.6%	6.5%
Pentachlorophenol	20.8	25.0	83.2%	21.6	25.0	86.4%	3.8%
Phenanthrene	21.8	28.0	77.9%	23.2	28.0	82.9%	6.2%
Carbazole	21.6	25.0	86.4%	23.2	25.0	92.8%	7.1%
Anthracene	21.7	25.0	86.8%	22.9	25.0	91.6%	5.4%
Di-n-Butylphthalate	21.6	25.0	86.4%	23.1	25.0	92.4%	6.7%
Fluoranthene	20.3	25.0	81.2%	21.8	25.0	87.2%	7.1%
Pyrene	24.9	25.0	99.6%	25.7	25.0	103%	3.2%
Butylbenzylphthalate	23.3	25.0	93.2%	25.2	25.0	101%	7.8%
3,3'-Dichlorobenzidine	53.5	64.0	83.6%	59.1	64.0	92.3%	9.9%
Benzo(a)anthracene	21.7	25.0	86.8%	23.0	25.0	92.0%	5.8%
bis(2-Ethylhexyl)phthalate	21.8	25.0	87.2%	23.4	25.0	93.6%	7.1%
Chrysene	21.9	28.0	78.2%	23.6	28.0	84.3%	7.5%
Di-n-Octyl phthalate	21.2	25.0	84.8%	23.2	25.0	92.8%	9.0%
Benzo(b)fluoranthene	20.8	25.0	83.2%	21.4	25.0	85.6%	2.8%
Benzo(k)fluoranthene	22.0	28.0	78.6%	24.2	28.0	86.4%	9.5%
Benzo(a)pyrene	18.7	25.0	74.8%	20.1	25.0	80.4%	7.2%
Indeno(1,2,3-cd)pyrene	27.8	25.0	111%	29.5	25.0	118%	5.9%
Dibenz(a,h)anthracene	27.5	25.0	110%	29.3	25.0	117%	6.3%
Benzo(g,h,i)perylene	27.5	25.0	110%	29.0	25.0	116%	5.3%
1-Methylnaphthalene	21.1	25.0	84.4%	22.8	25.0	91.2%	7.7%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	70.8%	73.6%
2-Fluorobiphenyl	71.2%	74.8%
d14-p-Terphenyl	83.6%	86.0%
d4-1,2-Dichlorobenzene	74.0%	75.2%
d5-Phenol	42.9%	43.5%
2-Fluorophenol	58.9%	60.0%
2,4,6-Tribromophenol	75.2%	80.0%
d4-2-Chlorophenol	77.6%	79.5%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-6-8'-090202  
SAMPLE

Lab Sample ID: OK85AB  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 19:41  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.18 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	61	< 61 U
111-44-4	Bis-(2-Chloroethyl) Ether	61	< 61 U
95-57-8	2-Chlorophenol	61	< 61 U
541-73-1	1,3-Dichlorobenzene	61	< 61 U
106-46-7	1,4-Dichlorobenzene	61	< 61 U
100-51-6	Benzyl Alcohol	61	< 61 U
95-50-1	1,2-Dichlorobenzene	61	< 61 U
95-48-7	2-Methylphenol	61	< 61 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	61	< 61 U
106-44-5	4-Methylphenol	61	< 61 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	61	< 61 U
98-95-3	Nitrobenzene	61	< 61 U
78-59-1	Isophorone	61	< 61 U
88-75-5	2-Nitrophenol	61	< 61 U
105-67-9	2,4-Dimethylphenol	61	< 61 U
65-85-0	Benzoic Acid	610	< 610 U
111-91-1	bis(2-Chloroethoxy) Methane	61	< 61 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	61	< 61 U
91-20-3	Naphthalene	61	< 61 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	61	< 61 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	61	< 61 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	61	< 61 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	61	< 61 U
208-96-8	Acenaphthylene	61	< 61 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	61	< 61 U
51-28-5	2,4-Dinitrophenol	610	< 610 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	61	< 61 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

Lab Sample ID: OK85AB  
 LIMS ID: 09-3296  
 Matrix: Soil  
 Date Analyzed: 02/06/09 19:41

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	61	< 61 U
7005-72-3	4-Chlorophenyl-phenylether	61	< 61 U
86-73-7	Fluorene	61	< 61 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	610	< 610 U
86-30-6	N-Nitrosodiphenylamine	61	< 61 U
101-55-3	4-Bromophenyl-phenylether	61	< 61 U
118-74-1	Hexachlorobenzene	61	< 61 U
87-86-5	Pentachlorophenol	310	< 310 U
85-01-8	Phenanthrene	61	< 61 U
86-74-8	Carbazole	61	< 61 U
120-12-7	Anthracene	61	< 61 U
84-74-2	Di-n-Butylphthalate	61	< 61 U
206-44-0	Fluoranthene	61	< 61 U
129-00-0	Pyrene	61	< 61 U
85-68-7	Butylbenzylphthalate	61	< 61 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo(a)anthracene	61	< 61 U
117-81-7	bis(2-Ethylhexyl)phthalate	61	< 61 U
218-01-9	Chrysene	61	< 61 U
117-84-0	Di-n-Octyl phthalate	61	< 61 U
205-99-2	Benzo(b)fluoranthene	61	< 61 U
207-08-9	Benzo(k)fluoranthene	61	< 61 U
50-32-8	Benzo(a)pyrene	61	< 61 U
193-39-5	Indeno(1,2,3-cd)pyrene	61	< 61 U
53-70-3	Dibenz(a,h)anthracene	61	< 61 U
191-24-2	Benzo(g,h,i)perylene	61	< 61 U
90-12-0	1-Methylnaphthalene	61	< 61 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	81.6%	d4-1,2-Dichlorobenzene	88.4%
d5-Phenol	62.4%	2-Fluorophenol	69.3%
2,4,6-Tribromophenol	93.6%	d4-2-Chlorophenol	74.4%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-6-12'-090202  
SAMPLE

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 20:16  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.66 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	65	< 65 U
111-44-4	Bis-(2-Chloroethyl) Ether	65	< 65 U
95-57-8	2-Chlorophenol	65	< 65 U
541-73-1	1,3-Dichlorobenzene	65	< 65 U
106-46-7	1,4-Dichlorobenzene	65	< 65 U
100-51-6	Benzyl Alcohol	65	< 65 U
95-50-1	1,2-Dichlorobenzene	65	< 65 U
95-48-7	2-Methylphenol	65	< 65 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	65	< 65 U
106-44-5	4-Methylphenol	65	< 65 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	65	< 65 U
98-95-3	Nitrobenzene	65	< 65 U
78-59-1	Isophorone	65	< 65 U
88-75-5	2-Nitrophenol	65	< 65 U
105-67-9	2,4-Dimethylphenol	65	< 65 U
65-85-0	Benzoic Acid	650	< 650 U
111-91-1	bis(2-Chloroethoxy) Methane	65	< 65 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	65	< 65 U
91-20-3	Naphthalene	65	< 65 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	65	< 65 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	65	< 65 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	65	< 65 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	65	< 65 U
208-96-8	Acenaphthylene	65	< 65 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	65	< 65 U
51-28-5	2,4-Dinitrophenol	650	< 650 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	65	< 65 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

Sample ID: IDP-6-12'-090202  
 SAMPLE

Lab Sample ID: OK85AC  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 20:16

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	65	< 65 U
7005-72-3	4-Chlorophenyl-phenylether	65	< 65 U
86-73-7	Fluorene	65	< 65 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	650	< 650 U
86-30-6	N-Nitrosodiphenylamine	65	< 65 U
101-55-3	4-Bromophenyl-phenylether	65	< 65 U
118-74-1	Hexachlorobenzene	65	< 65 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	65	< 65 U
86-74-8	Carbazole	65	< 65 U
120-12-7	Anthracene	65	< 65 U
84-74-2	Di-n-Butylphthalate	65	< 65 U
206-44-0	Fluoranthene	65	< 65 U
129-00-0	Pyrene	65	< 65 U
85-68-7	Butylbenzylphthalate	65	< 65 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo (a) anthracene	65	< 65 U
117-81-7	bis (2-Ethylhexyl) phthalate	65	< 65 U
218-01-9	Chrysene	65	< 65 U
117-84-0	Di-n-Octyl phthalate	65	< 65 U
205-99-2	Benzo (b) fluoranthene	65	< 65 U
207-08-9	Benzo (k) fluoranthene	65	< 65 U
50-32-8	Benzo (a) pyrene	65	< 65 U
193-39-5	Indeno (1,2,3-cd) pyrene	65	< 65 U
53-70-3	Dibenz (a,h) anthracene	65	< 65 U
191-24-2	Benzo (g,h,i) perylene	65	< 65 U
90-12-0	1-Methylnaphthalene	65	< 65 U

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	76.4%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	86.8%
d5-Phenol	55.7%	2-Fluorophenol	67.2%
2,4,6-Tribromophenol	88.8%	d4-2-Chlorophenol	72.5%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-6-12'-090202  
MATRIX SPIKE

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *WV*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 20:50  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.71 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	65	---
111-44-4	Bis-(2-Chloroethyl) Ether	65	---
95-57-8	2-Chlorophenol	65	---
541-73-1	1,3-Dichlorobenzene	65	---
106-46-7	1,4-Dichlorobenzene	65	---
100-51-6	Benzyl Alcohol	65	---
95-50-1	1,2-Dichlorobenzene	65	---
95-48-7	2-Methylphenol	65	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	65	---
106-44-5	4-Methylphenol	65	---
621-64-7	N-Nitroso-Di-N-Propylamine	320	---
67-72-1	Hexachloroethane	65	---
98-95-3	Nitrobenzene	65	---
78-59-1	Isophorone	65	---
88-75-5	2-Nitrophenol	65	---
105-67-9	2,4-Dimethylphenol	65	---
65-85-0	Benzoic Acid	650	---
111-91-1	bis(2-Chloroethoxy) Methane	65	---
120-83-2	2,4-Dichlorophenol	320	---
120-82-1	1,2,4-Trichlorobenzene	65	---
91-20-3	Naphthalene	65	---
106-47-8	4-Chloroaniline	320	---
87-68-3	Hexachlorobutadiene	65	---
59-50-7	4-Chloro-3-methylphenol	320	---
91-57-6	2-Methylnaphthalene	65	---
77-47-4	Hexachlorocyclopentadiene	320	---
88-06-2	2,4,6-Trichlorophenol	320	---
95-95-4	2,4,5-Trichlorophenol	320	---
91-58-7	2-Chloronaphthalene	65	---
88-74-4	2-Nitroaniline	320	---
131-11-3	Dimethylphthalate	65	---
208-96-8	Acenaphthylene	65	---
99-09-2	3-Nitroaniline	320	---
83-32-9	Acenaphthene	65	---
51-28-5	2,4-Dinitrophenol	650	---
100-02-7	4-Nitrophenol	320	---
132-64-9	Dibenzofuran	65	---
606-20-2	2,6-Dinitrotoluene	320	---
121-14-2	2,4-Dinitrotoluene	320	---

Sample ID: IDP-6-12'-090202  
 MATRIX SPIKE

Lab Sample ID: OK85AC  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 20:50

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	65	---
7005-72-3	4-Chlorophenyl-phenylether	65	---
86-73-7	Fluorene	65	---
100-01-6	4-Nitroaniline	320	---
534-52-1	4,6-Dinitro-2-Methylphenol	650	---
86-30-6	N-Nitrosodiphenylamine	65	---
101-55-3	4-Bromophenyl-phenylether	65	---
118-74-1	Hexachlorobenzene	65	---
87-86-5	Pentachlorophenol	320	---
85-01-8	Phenanthrene	65	---
86-74-8	Carbazole	65	---
120-12-7	Anthracene	65	---
84-74-2	Di-n-Butylphthalate	65	---
206-44-0	Fluoranthene	65	---
129-00-0	Pyrene	65	---
85-68-7	Butylbenzylphthalate	65	---
91-94-1	3,3'-Dichlorobenzidine	320	---
56-55-3	Benzo(a)anthracene	65	---
117-81-7	bis(2-Ethylhexyl)phthalate	65	---
218-01-9	Chrysene	65	---
117-84-0	Di-n-Octyl phthalate	65	---
205-99-2	Benzo(b)fluoranthene	65	---
207-08-9	Benzo(k)fluoranthene	65	---
50-32-8	Benzo(a)pyrene	65	---
193-39-5	Indeno(1,2,3-cd)pyrene	65	---
53-70-3	Dibenz(a,h)anthracene	65	---
191-24-2	Benzo(g,h,i)perylene	65	---
90-12-0	1-Methylnaphthalene	65	---

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	76.4%	2-Fluorobiphenyl	79.6%
d14-p-Terphenyl	83.6%	d4-1,2-Dichlorobenzene	86.0%
d5-Phenol	67.7%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	94.9%	d4-2-Chlorophenol	74.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: IDP-6-12'-090202  
MATRIX SPIKE DUPLICATE

Lab Sample ID: OK85AC

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3297

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: *MW*

Date Sampled: 02/02/09

Reported: 02/11/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Sample Amount: 7.71 g-dry-wt

Date Analyzed: 02/06/09 21:25

Final Extract Volume: 0.5 mL

Instrument/Analyst: NT6/LJR

Dilution Factor: 1.00

GPC Cleanup: No

Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	65	---
111-44-4	Bis-(2-Chloroethyl) Ether	65	---
95-57-8	2-Chlorophenol	65	---
541-73-1	1,3-Dichlorobenzene	65	---
106-46-7	1,4-Dichlorobenzene	65	---
100-51-6	Benzyl Alcohol	65	---
95-50-1	1,2-Dichlorobenzene	65	---
95-48-7	2-Methylphenol	65	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	65	---
106-44-5	4-Methylphenol	65	---
621-64-7	N-Nitroso-Di-N-Propylamine	320	---
67-72-1	Hexachloroethane	65	---
98-95-3	Nitrobenzene	65	---
78-59-1	Isophorone	65	---
88-75-5	2-Nitrophenol	65	---
105-67-9	2,4-Dimethylphenol	65	---
65-85-0	Benzoic Acid	650	---
111-91-1	bis(2-Chloroethoxy) Methane	65	---
120-83-2	2,4-Dichlorophenol	320	---
120-82-1	1,2,4-Trichlorobenzene	65	---
91-20-3	Naphthalene	65	---
106-47-8	4-Chloroaniline	320	---
87-68-3	Hexachlorobutadiene	65	---
59-50-7	4-Chloro-3-methylphenol	320	---
91-57-6	2-Methylnaphthalene	65	---
77-47-4	Hexachlorocyclopentadiene	320	---
88-06-2	2,4,6-Trichlorophenol	320	---
95-95-4	2,4,5-Trichlorophenol	320	---
91-58-7	2-Chloronaphthalene	65	---
88-74-4	2-Nitroaniline	320	---
131-11-3	Dimethylphthalate	65	---
208-96-8	Acenaphthylene	65	---
99-09-2	3-Nitroaniline	320	---
83-32-9	Acenaphthene	65	---
51-28-5	2,4-Dinitrophenol	650	---
100-02-7	4-Nitrophenol	320	---
132-64-9	Dibenzofuran	65	---
606-20-2	2,6-Dinitrotoluene	320	---
121-14-2	2,4-Dinitrotoluene	320	---

Lab Sample ID: OK85AC  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 21:25

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	65	---
7005-72-3	4-Chlorophenyl-phenylether	65	---
86-73-7	Fluorene	65	---
100-01-6	4-Nitroaniline	320	---
534-52-1	4,6-Dinitro-2-Methylphenol	650	---
86-30-6	N-Nitrosodiphenylamine	65	---
101-55-3	4-Bromophenyl-phenylether	65	---
118-74-1	Hexachlorobenzene	65	---
87-86-5	Pentachlorophenol	320	---
85-01-8	Phenanthrene	65	---
86-74-8	Carbazole	65	---
120-12-7	Anthracene	65	---
84-74-2	Di-n-Butylphthalate	65	---
206-44-0	Fluoranthene	65	---
129-00-0	Pyrene	65	---
85-68-7	Butylbenzylphthalate	65	---
91-94-1	3,3'-Dichlorobenzidine	320	---
56-55-3	Benzo (a) anthracene	65	---
117-81-7	bis (2-Ethylhexyl) phthalate	65	---
218-01-9	Chrysene	65	---
117-84-0	Di-n-Octyl phthalate	65	---
205-99-2	Benzo (b) fluoranthene	65	---
207-08-9	Benzo (k) fluoranthene	65	---
50-32-8	Benzo (a) pyrene	65	---
193-39-5	Indeno (1,2,3-cd) pyrene	65	---
53-70-3	Dibenz (a,h) anthracene	65	---
191-24-2	Benzo (g,h,i) perylene	65	---
90-12-0	1-Methylnaphthalene	65	---

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	77.2%	d4-1,2-Dichlorobenzene	73.2%
d5-Phenol	60.5%	2-Fluorophenol	59.5%
2,4,6-Tribromophenol	87.7%	d4-2-Chlorophenol	66.9%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-020509  
METHOD BLANK

Lab Sample ID: MB-020509  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *WWW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 13:22  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-3	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

Lab Sample ID: MB-020509  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 13:22

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo(a)anthracene	67	< 67 U
117-81-7	bis(2-Ethylhexyl)phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo(b)fluoranthene	67	< 67 U
207-08-9	Benzo(k)fluoranthene	67	< 67 U
50-32-8	Benzo(a)pyrene	67	< 67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67	< 67 U
53-70-3	Dibenz(a,h)anthracene	67	< 67 U
191-24-2	Benzo(g,h,i)perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	76.4%
d14-p-Terphenyl	87.6%	d4-1,2-Dichlorobenzene	86.8%
d5-Phenol	74.1%	2-Fluorophenol	72.3%
2,4,6-Tribromophenol	80.5%	d4-2-Chlorophenol	78.4%

**SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
IDP-6-8'-090202	77.6%	72.0%	81.6%	88.4%	62.4%	69.3%	93.6%	74.4%	0	
MB-020509	77.6%	76.4%	87.6%	86.8%	74.1%	72.3%	80.5%	78.4%	0	
LCS-020509	76.0%	78.0%	91.2%	86.0%	73.9%	73.9%	88.0%	77.3%	0	
LCSD-020509	75.6%	78.4%	90.4%	86.4%	73.6%	72.8%	88.3%	76.8%	0	
IDP-6-12'-090202	76.4%	68.8%	78.0%	86.8%	55.7%	67.2%	88.8%	72.5%	0	
IDP-6-12'-090202 MS	76.4%	79.6%	83.6%	86.0%	67.7%	67.7%	94.9%	74.9%	0	
IDP-6-12'-090202 MSD	66.0%	72.8%	77.2%	73.2%	60.5%	59.5%	87.7%	66.9%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546  
Log Number Range: 09-3296 to 09-3297

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 7.50 g  
LCSD: 7.50 g

Date Analyzed LCS: 02/06/09 13:56  
LCSD: 02/06/09 14:31

Final Extract Volume LCS: 0.5 mL  
LCSD: 0.5 mL

Instrument/Analyst LCS: NT6/LJR  
LCSD: NT6/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	LCSD		
Phenol	1310	1670	78.4%	1330	1670	79.6%	1.5%		
Bis-(2-Chloroethyl) Ether	1360	1670	81.4%	1380	1670	82.6%	1.5%		
2-Chlorophenol	1440	1670	86.2%	1460	1670	87.4%	1.4%		
1,3-Dichlorobenzene	1440	1670	86.2%	1480	1670	88.6%	2.7%		
1,4-Dichlorobenzene	1450	1670	86.8%	1460	1670	87.4%	0.7%		
Benzyl Alcohol	2250	3330	67.6%	2310	3330	69.4%	2.6%		
1,2-Dichlorobenzene	1440	1670	86.2%	1470	1670	88.0%	2.1%		
2-Methylphenol	1380	1670	82.6%	1380	1670	82.6%	0.0%		
2,2'-Oxybis(1-Chloropropane)	1400	1670	83.8%	1430	1670	85.6%	2.1%		
4-Methylphenol	2820	3330	84.7%	2840	3330	85.3%	0.7%		
N-Nitroso-Di-N-Propylamine	1430	1670	85.6%	1450	1670	86.8%	1.4%		
Hexachloroethane	1400	1670	83.8%	1430	1670	85.6%	2.1%		
Nitrobenzene	1360	1670	81.4%	1370	1670	82.0%	0.7%		
Isophorone	1430	1670	85.6%	1450	1670	86.8%	1.4%		
2-Nitrophenol	1590	1670	95.2%	1610	1670	96.4%	1.2%		
2,4-Dimethylphenol	1330	1670	79.6%	1340	1670	80.2%	0.7%		
Benzoic Acid	1590	5000	31.8%	1910	5000	38.2%	18.3%		
bis(2-Chloroethoxy) Methane	1420	1670	85.0%	1440	1670	86.2%	1.4%		
2,4-Dichlorophenol	1510	1670	90.4%	1540	1670	92.2%	2.0%		
1,2,4-Trichlorobenzene	1460	1670	87.4%	1520	1670	91.0%	4.0%		
Naphthalene	1520	1670	91.0%	1550	1670	92.8%	2.0%		
4-Chloroaniline	3270	4000	81.8%	3030	4000	75.8%	7.6%		
Hexachlorobutadiene	1500	1670	89.8%	1560	1670	93.4%	3.9%		
4-Chloro-3-methylphenol	1450	1670	86.8%	1510	1670	90.4%	4.1%		
2-Methylnaphthalene	1510	1670	90.4%	1530	1670	91.6%	1.3%		
Hexachlorocyclopentadiene	7380	5000	148%	7540	5000	151%	2.1%		
2,4,6-Trichlorophenol	1620	1670	97.0%	1610	1670	96.4%	0.6%		
2,4,5-Trichlorophenol	1580	1670	94.6%	1670	1670	100%	5.5%		
2-Chloronaphthalene	1760	1670	105%	1770	1670	106%	0.6%		
2-Nitroaniline	1560	1670	93.4%	1600	1670	95.8%	2.5%		
Dimethylphthalate	1520	1670	91.0%	1540	1670	92.2%	1.3%		
Acenaphthylene	1490	1670	89.2%	1500	1670	89.8%	0.7%		
3-Nitroaniline	4070	4270	95.3%	3860	4270	90.4%	5.3%		
Acenaphthene	1500	1670	89.8%	1510	1670	90.4%	0.7%		

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCSD-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3297  
Matrix: Soil

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Date Analyzed LCS: 02/06/09 13:56  
LCSD: 02/06/09 14:31

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	5790	5000	116%	6230	5000	125%	7.3%
4-Nitrophenol	1670	1670	100%	1610	1670	96.4%	3.7%
Dibenzofuran	1540	1670	92.2%	1540	1670	92.2%	0.0%
2,6-Dinitrotoluene	1680	1670	101%	1690	1670	101%	0.6%
2,4-Dinitrotoluene	1700	1670	102%	1740	1670	104%	2.3%
Diethylphthalate	1550	1670	92.8%	1580	1670	94.6%	1.9%
4-Chlorophenyl-phenylether	1620	1670	97.0%	1640	1670	98.2%	1.2%
Fluorene	1620	1670	97.0%	1620	1670	97.0%	0.0%
4-Nitroaniline	1620	1670	97.0%	1640	1670	98.2%	1.2%
4,6-Dinitro-2-Methylphenol	6990	5000	140%	7150	5000	143%	2.3%
N-Nitrosodiphenylamine	1610	1670	96.4%	1620	1670	97.0%	0.6%
4-Bromophenyl-phenylether	1600	1670	95.8%	1610	1670	96.4%	0.6%
Hexachlorobenzene	1580	1670	94.6%	1560	1670	93.4%	1.3%
Pentachlorophenol	1000	1670	59.9%	1010	1670	60.5%	1.0%
Phenanthrene	1640	1670	98.2%	1660	1670	99.4%	1.2%
Carbazole	1710	1670	102%	1710	1670	102%	0.0%
Anthracene	1660	1670	99.4%	1660	1670	99.4%	0.0%
Di-n-Butylphthalate	1790	1670	107%	1810	1670	108%	1.1%
Fluoranthene	1820	1670	109%	1850	1670	111%	1.6%
Pyrene	1670	1670	100%	1680	1670	101%	0.6%
Butylbenzylphthalate	1840	1670	110%	1840	1670	110%	0.0%
3,3'-Dichlorobenzidine	4370	4270	102%	4210	4270	98.6%	3.7%
Benzo(a)anthracene	1640	1670	98.2%	1630	1670	97.6%	0.6%
bis(2-Ethylhexyl)phthalate	1850	1670	111%	1880	1670	113%	1.6%
Chrysene	1480	1670	88.6%	1490	1670	89.2%	0.7%
Di-n-Octyl phthalate	1620	1670	97.0%	1610	1670	96.4%	0.6%
Benzo(b)fluoranthene	1830	1670	110%	1860	1670	111%	1.6%
Benzo(k)fluoranthene	1940	1670	116%	1950	1670	117%	0.5%
Benzo(a)pyrene	1550	1670	92.8%	1560	1670	93.4%	0.6%
Indeno(1,2,3-cd)pyrene	1880	1670	113%	1870	1670	112%	0.5%
Dibenz(a,h)anthracene	1820	1670	109%	1820	1670	109%	0.0%
Benzo(g,h,i)perylene	1780	1670	107%	1770	1670	106%	0.6%
1-Methylnaphthalene	1630	1670	97.6%	1670	1670	100%	2.4%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	76.0%	75.6%
2-Fluorobiphenyl	78.0%	78.4%
d14-p-Terphenyl	91.2%	90.4%
d4-1,2-Dichlorobenzene	86.0%	86.4%
d5-Phenol	73.9%	73.6%
2-Fluorophenol	73.9%	72.8%
2,4,6-Tribromophenol	88.0%	88.3%
d4-2-Chlorophenol	77.3%	76.8%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-6-12'-090202  
MS/MSD

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted MS/MSD: 02/05/09  
Date Analyzed MS: 02/06/09 20:50  
MSD: 02/06/09 21:25  
Instrument/Analyst MS: NT6/LJR  
MSD: NT6/LJR  
GPC Cleanup: NO

Sample Amount MS: 7.71 g-dry-wt  
MSD: 7.71 g-dry-wt  
Final Extract Volume MS: 0.5 mL  
MSD: 0.5 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Percent Moisture: 15.1 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 65.3	1200	1620	74.1%	1090	1620	67.3%	9.6%
Bis-(2-Chloroethyl) Ether	< 65.3	1410	1620	87.0%	1200	1620	74.1%	16.1%
2-Chlorophenol	< 65.3	1370	1620	84.6%	1220	1620	75.3%	11.6%
1,3-Dichlorobenzene	< 65.3	1390	1620	85.8%	1240	1620	76.5%	11.4%
1,4-Dichlorobenzene	< 65.3	1410	1620	87.0%	1240	1620	76.5%	12.8%
Benzyl Alcohol	< 65.3	< 64.9 U	3240	NA	< 64.9 U	3240	NA	NA
1,2-Dichlorobenzene	< 65.3	1470	1620	90.7%	1270	1620	78.4%	14.6%
2-Methylphenol	< 65.3	1300	1620	80.2%	1190	1620	73.5%	8.8%
2,2'-Oxybis(1-Chloropropane	< 65.3	1410	1620	87.0%	1250	1620	77.2%	12.0%
4-Methylphenol	< 65.3	2660	3240	82.1%	2420	3240	74.7%	9.4%
N-Nitroso-Di-N-Propylamine	< 326	1390	1620	85.8%	1250	1620	77.2%	10.6%
Hexachloroethane	< 65.3	1250	1620	77.2%	1120	1620	69.1%	11.0%
Nitrobenzene	< 65.3	1300	1620	80.2%	1200	1620	74.1%	8.0%
Isophorone	< 65.3	1450	1620	89.5%	1310	1620	80.9%	10.1%
2-Nitrophenol	< 65.3	1530	1620	94.4%	1370	1620	84.6%	11.0%
2,4-Dimethylphenol	< 65.3	1240	1620	76.5%	1160	1620	71.6%	6.7%
Benzoic Acid	< 653	2910	4860	59.9%	2580	4860	53.1%	12.0%
bis(2-Chloroethoxy) Methane	< 65.3	1400	1620	86.4%	1260	1620	77.8%	10.5%
2,4-Dichlorophenol	< 326	1430	1620	88.3%	1300	1620	80.2%	9.5%
1,2,4-Trichlorobenzene	< 65.3	1450	1620	89.5%	1290	1620	79.6%	11.7%
Naphthalene	< 65.3	1530	1620	94.4%	1330	1620	82.1%	14.0%
4-Chloroaniline	< 326	2820	3890	72.5%	2500	3890	64.3%	12.0%
Hexachlorobutadiene	< 65.3	1500	1620	92.6%	1320	1620	81.5%	12.8%
4-Chloro-3-methylphenol	< 326	1500	1620	92.6%	1360	1620	84.0%	9.8%
2-Methylnaphthalene	< 65.3	1460	1620	90.1%	1340	1620	82.7%	8.6%
Hexachlorocyclopentadiene	< 326	3830	4860	78.8%	3460	4860	71.2%	10.2%
2,4,6-Trichlorophenol	< 326	1360	1620	84.0%	1200	1620	74.1%	12.5%
2,4,5-Trichlorophenol	< 326	1700	1620	105%	1680	1620	104%	1.2%
2-Chloronaphthalene	< 65.3	1730	1620	107%	1560	1620	96.3%	10.3%
2-Nitroaniline	< 326	1560	1620	96.3%	1450	1620	89.5%	7.3%
Dimethylphthalate	< 65.3	1540	1620	95.1%	1460	1620	90.1%	5.3%
Acenaphthylene	< 65.3	1460	1620	90.1%	1380	1620	85.2%	5.6%
3-Nitroaniline	< 326	3660	4150	88.2%	3560	4150	85.8%	2.8%
Acenaphthene	< 65.3	1470	1620	90.7%	1380	1620	85.2%	6.3%
2,4-Dinitrophenol	< 653	4280	4860	88.1%	4290	4860	88.3%	0.2%
4-Nitrophenol	< 326	527	1620	32.5%	431	1620	26.6%	20.0%
Dibenzofuran	< 65.3	1510	1620	93.2%	1420	1620	87.7%	6.1%
2,6-Dinitrotoluene	< 326	1650	1620	102%	1580	1620	97.5%	4.3%
2,4-Dinitrotoluene	< 326	1670	1620	103%	1610	1620	99.4%	3.7%
Diethylphthalate	< 65.3	1560	1620	96.3%	1480	1620	91.4%	5.3%
4-Chlorophenyl-phenylether	< 65.3	1600	1620	98.8%	1500	1620	92.6%	6.5%
Fluorene	< 65.3	1580	1620	97.5%	1490	1620	92.0%	5.9%
4-Nitroaniline	< 326	1420	1620	87.7%	1370	1620	84.6%	3.6%
4,6-Dinitro-2-Methylphenol	< 653	5500	4860	113%	5240	4860	108%	4.8%
N-Nitrosodiphenylamine	< 65.3	1610	1620	99.4%	1480	1620	91.4%	8.4%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-6-12'-090202  
MS/MSD

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Date Analyzed MS: 02/06/09 20:50  
MSD: 02/06/09 21:25

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 65.3	1580	1620	97.5%	1470	1620	90.7%	7.2%
Hexachlorobenzene	< 65.3	1560	1620	96.3%	1450	1620	89.5%	7.3%
Pentachlorophenol	< 326	2080	1620	128%	1900	1620	117%	9.0%
Phenanthrene	< 65.3	1670	1620	103%	1540	1620	95.1%	8.1%
Carbazole	< 65.3	1730	1620	107%	1620	1620	100%	6.6%
Anthracene	< 65.3	1690	1620	104%	1540	1620	95.1%	9.3%
Di-n-Butylphthalate	< 65.3	1840	1620	114%	1690	1620	104%	8.5%
Fluoranthene	< 65.3	1930	1620	119%	1830	1620	113%	5.3%
Pyrene	< 65.3	1570	1620	96.9%	1470	1620	90.7%	6.6%
Butylbenzylphthalate	< 65.3	1650	1620	102%	1550	1620	95.7%	6.2%
3,3'-Dichlorobenzidine	< 326	3290	4150	79.3%	3140	4150	75.7%	4.7%
Benzo(a)anthracene	< 65.3	1590	1620	98.1%	1490	1620	92.0%	6.5%
bis(2-Ethylhexyl)phthalate	< 65.3	1790	1620	110%	1690	1620	104%	5.7%
Chrysene	< 65.3	1470	1620	90.7%	1350	1620	83.3%	8.5%
Di-n-Octyl phthalate	< 65.3	1600	1620	98.8%	1490	1620	92.0%	7.1%
Benzo(b)fluoranthene	< 65.3	1790	1620	110%	1630	1620	101%	9.4%
Benzo(k)fluoranthene	< 65.3	2050	1620	127%	1950	1620	120%	5.0%
Benzo(a)pyrene	< 65.3	1550	1620	95.7%	1440	1620	88.9%	7.4%
Indeno(1,2,3-cd)pyrene	< 65.3	1710	1620	106%	1560	1620	96.3%	9.2%
Dibenz(a,h)anthracene	< 65.3	1670	1620	103%	1540	1620	95.1%	8.1%
Benzo(g,h,i)perylene	< 65.3	1500	1620	92.6%	1340	1620	82.7%	11.3%
1-Methylnaphthalene	< 65.3	1630	1620	101%	1460	1620	90.1%	11.0%

Results reported in µg/kg

RPD calculated using sample concentrations per SW846.

NA-No recovery due to high concentration of analyte in original sample and/or  
calculated negative recovery.

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-7-090202

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**SAMPLE**

Lab Sample ID: OK85A

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *mm*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 19:02

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.0</b>	<b>4.8</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-7-090202

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SAMPLE

Lab Sample ID: OK85A

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 19:02

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	106%
d8-Toluene	100%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	103%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: I-104-090202  
SAMPLE

Lab Sample ID: OK85B

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3270

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *mmw*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 19:28

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>0.2</b>	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	<b>Acetone</b>	<b>3.0</b>	<b>3.7</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
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Sample ID: I-104-090202  
 SAMPLE



Lab Sample ID: OK85B

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3270

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 19:28

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.0%
d8-Toluene	98.8%
Bromofluorobenzene	104%
d4-1,2-Dichlorobenzene	102%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: PZ-1-090202

Page 1 of 2

SAMPLE

Lab Sample ID: OK85C

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3271

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *NW*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 19:53

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-1-090202

Page 2 of 2

SAMPLE

Lab Sample ID: OK85C

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3271

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 19:53

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	100%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	101%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: I-1044-090202

Page 1 of 2

SAMPLE

Lab Sample ID: OK85D

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3272

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *TWW*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 20:18

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.0</b>	<b>3.4</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
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Sample ID: I-1044-090202  
 SAMPLE



Lab Sample ID: OK85D  
 LIMS ID: 09-3272  
 Matrix: Water  
 Date Analyzed: 02/06/09 20:18

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	99.8%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TB

Page 1 of 2

SAMPLE

Lab Sample ID: OK85K

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3279

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *MW*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 12:44

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2Sample ID: TB  
SAMPLE

Lab Sample ID: OK85K

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3279

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 12:44

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

## Volatile Surrogate Recovery

d4-1,2-Dichloroethane	91.2%
d8-Toluene	99.5%
Bromofluorobenzene	95.0%
d4-1,2-Dichlorobenzene	103%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Page 1 of 2

Sample ID: MB-020609

METHOD BLANK



Lab Sample ID: MB-020609

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *WVW*

Date Sampled: NA

Reported: 02/10/09

Date Received: NA

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 11:40

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
 Page 2 of 2



Sample ID: MB-020609  
 METHOD BLANK

Lab Sample ID: MB-020609

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 11:40

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	93.2%
d8-Toluene	100%
Bromofluorobenzene	98.5%
d4-1,2-Dichlorobenzene	102%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-020609	Method Blank	20	93.2%	100%	98.5%	102%	0
LCS-020609	Lab Control	20	91.8%	100%	97.0%	99.2%	0
LCSD-020609	Lab Control Dup	20	94.0%	99.2%	100%	98.8%	0
OK85A	PZ-7-090202	20	106%	100%	102%	103%	0
OK85B	I-104-090202	20	99.0%	98.8%	104%	102%	0
OK85C	PZ-1-090202	20	102%	100%	101%	101%	0
OK85D	I-1044-090202	20	105%	99.8%	103%	102%	0
OK85K	TB	20	91.2%	99.5%	95.0%	103%	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

70-131  
 80-120  
 74-121  
 80-120

64-146  
 78-125  
 71-120  
 80-121

Prep Method: SW5030B  
 Log Number Range: 09-3269 to 09-3279

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-020609

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020609

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *MMW*

Date Sampled: NA

Reported: 02/10/09

Date Received: NA

Instrument/Analyst LCS: NT7/PKC

Sample Amount LCS: 20.0 mL

LCSID: NT7/PKC

LCSID: 20.0 mL

Date Analyzed LCS: 02/06/09 10:49

Purge Volume LCS: 20.0 mL

LCSID: 02/06/09 11:15

LCSID: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSID	Spike Added-LCSID	LCSID Recovery	RPD
Chloromethane	2.8	4.0	70.0%	2.7	4.0	67.5%	3.6%
Bromomethane	3.9	4.0	97.5%	3.7	4.0	92.5%	5.3%
Vinyl Chloride	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
Chloroethane	4.4	4.0	110%	4.4	4.0	110%	0.0%
Methylene Chloride	4.6	4.0	115%	4.5	4.0	112%	2.2%
Acetone	18.6	20.0	93.0%	18.4	20.0	92.0%	1.1%
Carbon Disulfide	4.1	4.0	102%	4.0	4.0	100%	2.5%
1,1-Dichloroethene	4.4	4.0	110%	4.4	4.0	110%	0.0%
1,1-Dichloroethane	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
trans-1,2-Dichloroethene	4.4	4.0	110%	4.2	4.0	105%	4.7%
cis-1,2-Dichloroethene	4.4	4.0	110%	4.2	4.0	105%	4.7%
Chloroform	4.0	4.0	100%	4.0	4.0	100%	0.0%
1,2-Dichloroethane	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
2-Butanone	20.0	20.0	100%	19.1	20.0	95.5%	4.6%
1,1,1-Trichloroethane	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
Carbon Tetrachloride	4.1	4.0	102%	3.9	4.0	97.5%	5.0%
Vinyl Acetate	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
Bromodichloromethane	4.3	4.0	108%	4.2	4.0	105%	2.4%
1,2-Dichloropropane	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
cis-1,3-Dichloropropene	4.3	4.0	108%	4.2	4.0	105%	2.4%
Trichloroethene	4.0	4.0	100%	4.0	4.0	100%	0.0%
Dibromochloromethane	4.5	4.0	112%	4.3	4.0	108%	4.5%
1,1,2-Trichloroethane	4.2	4.0	105%	4.2	4.0	105%	0.0%
Benzene	4.1	4.0	102%	4.0	4.0	100%	2.5%
trans-1,3-Dichloropropene	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
2-Chloroethylvinylether	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
Bromoform	4.5	4.0	112%	4.0	4.0	100%	11.8%
4-Methyl-2-Pentanone (MIBK)	21.2	20.0	106%	20.0	20.0	100%	5.8%
2-Hexanone	16.6	20.0	83.0%	15.5	20.0	77.5%	6.9%
Tetrachloroethene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,1,2,2-Tetrachloroethane	4.2	4.0	105%	3.8	4.0	95.0%	10.0%
Toluene	4.2	4.0	105%	4.0	4.0	100%	4.9%
Chlorobenzene	4.2	4.0	105%	4.1	4.0	102%	2.4%
Ethylbenzene	4.3	4.0	108%	4.2	4.0	105%	2.4%
Styrene	4.3	4.0	108%	4.3	4.0	108%	0.0%
Trichlorofluoromethane	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,1,2-Trichloro-1,2,2-trifluoroethane	4.2	4.0	105%	4.1	4.0	102%	2.4%
m,p-Xylene	8.4	8.0	105%	8.3	8.0	104%	1.2%
o-Xylene	4.2	4.0	105%	4.1	4.0	102%	2.4%
1,2-Dichlorobenzene	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
1,3-Dichlorobenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,4-Dichlorobenzene	4.1	4.0	102%	3.8	4.0	95.0%	7.6%
Acrolein	20.6	20.0	103%	21.1	20.0	106%	2.4%
Methyl Iodide	4.5	4.0	112%	4.5	4.0	112%	0.0%
Bromoethane	4.2	4.0	105%	4.1	4.0	102%	2.4%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2



Sample ID: LCS-020609  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-020609  
LIMS ID: 09-3269  
Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	3.9	4.0	97.5%	3.6	4.0	90.0%	8.0%
1,1-Dichloropropene	4.1	4.0	102%	4.0	4.0	100%	2.5%
Dibromomethane	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,1,1,2-Tetrachloroethane	4.2	4.0	105%	4.1	4.0	102%	2.4%
1,2-Dibromo-3-chloropropane	3.8	4.0	95.0%	3.6	4.0	90.0%	5.4%
1,2,3-Trichloropropane	4.7	4.0	118%	4.3	4.0	108%	8.9%
trans-1,4-Dichloro-2-butene	3.5	4.0	87.5%	3.2	4.0	80.0%	9.0%
1,3,5-Trimethylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,2,4-Trimethylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
Hexachlorobutadiene	3.9	4.0	97.5%	3.6	4.0	90.0%	8.0%
Ethylene Dibromide	4.3	4.0	108%	4.2	4.0	105%	2.4%
Bromochloromethane	4.2	4.0	105%	4.1	4.0	102%	2.4%
2,2-Dichloropropane	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
1,3-Dichloropropane	4.2	4.0	105%	4.1	4.0	102%	2.4%
Isopropylbenzene	4.1	4.0	102%	3.8	4.0	95.0%	7.6%
n-Propylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
Bromobenzene	4.3	4.0	108%	4.0	4.0	100%	7.2%
2-Chlorotoluene	4.1	4.0	102%	3.9	4.0	97.5%	5.0%
4-Chlorotoluene	4.2	4.0	105%	4.0	4.0	100%	4.9%
tert-Butylbenzene	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
sec-Butylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
4-Isopropyltoluene	4.3	4.0	108%	4.0	4.0	100%	7.2%
n-Butylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,2,4-Trichlorobenzene	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
Naphthalene	4.1	4.0	102%	4.1	4.0	102%	0.0%
1,2,3-Trichlorobenzene	4.1	4.0	102%	4.0	4.0	100%	2.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	91.8%	94.0%
d8-Toluene	100%	99.2%
Bromofluorobenzene	97.0%	100%
d4-1,2-Dichlorobenzene	99.2%	98.8%

ORGANICS ANALYSIS DATA SHEET  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1  
 Matrix: Water

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

Data Release Authorized:   
 Reported: 02/06/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-020409 09-3269	Method Blank	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	79.6%
OK85A 09-3269	PZ-7-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	84.1%
OK85B 09-3270	I-104-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	86.5%
OK85C 09-3271	PZ-1-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	72.9%
OK85D 09-3272	I-1044-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	84.8%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.  
 Diesel value based on the total peaks in the range from C12 to C24.  
 Oil value based on the total peaks in the range from C24 to C38.

HCID SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-020409	79.6%	0
LCS-020409	85.4%	0
LCSD-020409	84.8%	0
PZ-7-090202	84.1%	0
I-104-090202	86.5%	0
PZ-1-090202	72.9%	0
I-1044-090202	84.8%	0

LCS/MB LIMITS      QC LIMITS

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 09-3269 to 09-3272

ORGANICS ANALYSIS DATA SHEET  
NWTPH-HCID Method by GC/FID  
Page 1 of 1

Sample ID: LCS-020409  
LCS/LCSD

Lab Sample ID: LCS-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *AS*  
Reported: 02/06/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted LCS/LCSD: 02/04/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/06/09 01:52  
LCSD: 02/06/09 02:11

Final Extract Volume LCS: 1.0 mL  
LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS  
LCSD: FID/MS

Dilution Factor LCS: 1.00  
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.37	3.00	79.0%	2.34	3.00	78.0%	1.3%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	85.4%	84.8%

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

TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water  
Date Received: 02/02/09

ARI Job: OK85  
Project: BOEING ISAACSON  
025173.090

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
09-3269-020409MB	Method Blank	500 mL	1.00 mL	02/04/09
09-3269-020409LCS	Lab Control	500 mL	1.00 mL	02/04/09
09-3269-020409LCSD	Lab Control Dup	500 mL	1.00 mL	02/04/09
09-3269-OK85A	PZ-7-090202	500 mL	1.00 mL	02/04/09
09-3270-OK85B	I-104-090202	500 mL	1.00 mL	02/04/09
09-3271-OK85C	PZ-1-090202	500 mL	1.00 mL	02/04/09
09-3272-OK85D	I-1044-090202	500 mL	1.00 mL	02/04/09

ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: PZ-7-090202  
SAMPLE

Lab Sample ID: OK85A  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *mw*  
Reported: 02/09/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
Event: 025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/07/09 13:33  
Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 57.0%  
d14-Dibenzo(a,h)anthracene 71.7%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-104-090202

SAMPLE

Lab Sample ID: OK85B

LIMS ID: 09-3270

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 13:56

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 60.7%  
d14-Dibenzo(a,h)anthracene 80.0%

ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Data Release Authorized: *mw*  
Reported: 02/09/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
Event: 025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/07/09 14:18  
Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 49.7%  
d14-Dibenzo(a,h)anthracene 75.0%



ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-1044-090202

SAMPLE

Lab Sample ID: OK85D

LIMS ID: 09-3272

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 14:41

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 59.7%  
d14-Dibenzo(a,h)anthracene 79.7%

ORGANICS ANALYSIS DATA SHEET

PNA's by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: MB-020509

METHOD BLANK

Lab Sample ID: MB-020509

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 12:25

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 45.0%  
d14-Dibenzo(a,h)anthracene 83.3%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-020509	45.0%*	83.3%	1
LCS-020509	55.0%	82.7%	0
LCSD-020509	58.7%	87.3%	0
PZ-7-090202	57.0%	71.7%	0
I-104-090202	60.7%	80.0%	0
PZ-1-090202	49.7%	75.0%	0
I-1044-090202	59.7%	79.7%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(MNP) = d10-2-Methylnaphthalene	(49-113)	(44-112)
(DBA) = d14-Dibenzo(a,h)anthracene	(49-132)	(10-138)

Prep Method: SW3520C  
Log Number Range: 09-3269 to 09-3272

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-020509

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020509

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/07/09 12:48

Final Extract Volume LCS: 0.50 mL

LCSD: 02/07/09 13:11

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/VTS

Dilution Factor LCS: 1.00

LCSD: NT1/VTS

LCSD: 1.00

Analyte	LCS		LCS Recovery		LCSD		LCSD Recovery		RPD
	Concentration	Spike Added	Recovery %	Concentration	Spike Added	Recovery %	RPD		
Benzo(a)anthracene	2.40	3.00	80.0%	2.64	3.00	88.0%	9.5%		
Chrysene	2.44	3.00	81.3%	2.63	3.00	87.7%	7.5%		
Benzo(b)fluoranthene	2.63	3.00	87.7%	2.83	3.00	94.3%	7.3%		
Benzo(k)fluoranthene	2.68	3.00	89.3%	3.00	3.00	100%	11.3%		
Benzo(a)pyrene	2.47	3.00	82.3%	2.84	3.00	94.7%	13.9%		
Indeno(1,2,3-cd)pyrene	2.36	3.00	78.7%	2.54	3.00	84.7%	7.3%		
Dibenz(a,h)anthracene	2.41	3.00	80.3%	2.67	3.00	89.0%	10.2%		

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	55.0%	58.7%
d14-Dibenzo(a,h)anthracene	82.7%	87.3%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: IDP-6-8'-090202

SAMPLE

Lab Sample ID: OK85AB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: *mmw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 16:57

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	89.2%
Tetrachlorometaxylene	86.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-6-8'-090202  
MATRIX SPIKE

Lab Sample ID: OK85AB  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *VNW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/07/09 17:15  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	---
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	---
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.0%
Tetrachlorometaxylene	85.2%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: IDP-6-8'-090202

MATRIX SPIKE DUP

Lab Sample ID: OK85AB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: *MMW*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 17:32

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	---
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	---
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	86.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: IDP-6-12'-090202

SAMPLE

Lab Sample ID: OK85AC

LIMS ID: 09-3297

Matrix: Soil

Data Release Authorized: *YMW*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 17:49

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	86.2%
Tetrachlorometaxylene	77.2%



ORGANICS ANALYSIS DATA SHEET

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: MB-020509

METHOD BLANK

Lab Sample ID: MB-020509

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: *mmw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 16:06

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	82.8%
Tetrachlorometaxylene	79.0%

**SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-020509	82.8%	59-122	79.0%	61-118	0
LCS-020509	89.0%	59-122	85.0%	61-118	0
LCSD-020509	91.0%	59-122	88.0%	61-118	0
IDP-6-8'-090202	89.2%	40-139	86.5%	49-120	0
IDP-6-8'-090202 MS	88.0%	40-139	85.2%	49-120	0
IDP-6-8'-090202 MSD	88.5%	40-139	86.0%	49-120	0
IDP-6-12'-090202	86.2%	40-139	77.2%	49-120	0

Standard Sonication Control Limits  
Prep Method: SW3550B  
Log Number Range: 09-3296 to 09-3297

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-6-8'-090202  
MS/MSD

Lab Sample ID: OK85AB  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *WJW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted MS/MSD: 02/05/09  
Date Analyzed MS: 02/07/09 17:15  
MSD: 02/07/09 17:32  
Instrument/Analyst MS: ECD5/JGR  
MSD: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount MS: 12.6 g-dry-wt  
MSD: 12.6 g-dry-wt  
Final Extract Volume MS: 4.0 mL  
MSD: 4.0 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Silica Gel: No  
Percent Moisture: 26.0%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 31.8 U	139	159	87.4%	147	159	92.5%	5.6%
Aroclor 1260	< 31.8 U	146	159	91.8%	155	159	97.5%	6.0%

Results reported in µg/kg (ppb)  
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 12.0 g-dry-wt  
LCSD: 12.0 g-dry-wt

Date Analyzed LCS: 02/07/09 16:23  
LCSD: 02/07/09 16:40

Final Extract Volume LCS: 4.0 mL  
LCSD: 4.0 mL

Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Silica Gel: No

Percent Moisture: NA

Analyte	Spike		LCS		Spike		LCSD	
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	RPD	
Aroclor 1016	148	167	88.8%	153	167	91.8%	3.3%	
Aroclor 1260	163	167	97.8%	167	167	100%	2.4%	

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	89.0%	91.0%
Tetrachlorometaxylene	85.0%	88.0%

Results reported in µg/kg (ppb)  
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

PCB by GC/ECD Method SW8082

Page 1 of 1



Sample ID: PZ-7-090202  
SAMPLE

Lab Sample ID: OK85A  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *JWW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 16:23  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.0%
Tetrachlorometaxylene	76.8%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: I-104-090202

SAMPLE

Lab Sample ID: OK85B

LIMS ID: 09-3270

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/04/09

Date Analyzed: 02/06/09 16:40

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	82.8%
Tetrachlorometaxylene	73.8%

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Data Release Authorized: *mmw*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 16:57  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	98.2%
Tetrachlorometaxylene	88.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: I-1044-090202

SAMPLE

Lab Sample ID: OK85D

LIMS ID: 09-3272

Matrix: Water

Data Release Authorized: *mw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/04/09

Date Analyzed: 02/06/09 17:14

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	69.8%
Tetrachlorometaxylene	72.8%

Sample ID: MB-020409  
METHOD BLANK

Lab Sample ID: MB-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *mmw*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 15:31  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	95.0%
Tetrachlorometaxylene	64.0%

**SW8082/PCB WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-020409	95.0%	47-101	64.0%	61-104	0
LCS-020409	95.2%	47-101	73.5%	61-104	0
LCSD-020409	96.5%	47-101	72.2%	61-104	0
PZ-7-090202	97.0%	42-120	76.8%	55-102	0
I-104-090202	82.8%	42-120	73.8%	55-102	0
PZ-1-090202	98.2%	42-120	88.0%	55-102	0
I-1044-090202	69.8%	42-120	72.8%	55-102	0

Prep Method: SW3510C  
Log Number Range: 09-3269 to 09-3272

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-020409

LCS/LCSD

Lab Sample ID: LCS-020409

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: *mmw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 02/04/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/06/09 15:48

Final Extract Volume LCS: 5.0 mL

LCSD: 02/06/09 16:05

LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/JGR

Dilution Factor LCS: 1.00

LCSD: ECD5/JGR

LCSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: No

Acid Cleanup: No

Analyte	Spike		LCS	LCS	Spike		LCSD	RPD
	LCS	Added-LCS	Recovery		Added-LCSD	Recovery		
Aroclor 1016	4.50	5.00	90.0%	4.49	5.00	89.8%	0.2%	
Aroclor 1260	5.13	5.00	103%	5.06	5.00	101%	1.4%	

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	95.2%	96.5%
Tetrachlorometaxylene	73.5%	72.2%

Results reported in µg/L

RPD calculated using sample concentrations per SW846.

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-1-4'-090202

SAMPLE

Lab Sample ID: OK85L

LIMS ID: 09-3280

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	30	60	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: IDP-1A-9'-090202

SAMPLE

Lab Sample ID: OK85M

LIMS ID: 09-3281

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 76.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	186	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-1A-14'-090202  
SAMPLE

Lab Sample ID: OK85N

LIMS ID: 09-3282

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	9	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-2-4'-090202

**SAMPLE**

Lab Sample ID: OK850

LIMS ID: 09-3283

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	10	180	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-2-8'-090202

SAMPLE

Lab Sample ID: OK85P

LIMS ID: 09-3284

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-2-11'-090202  
SAMPLE

Lab Sample ID: OK85Q

LIMS ID: 09-3285

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 77.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-3-4'-090202  
SAMPLE

Lab Sample ID: OK85R

LIMS ID: 09-3286

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 79.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	34	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

TOTAL METALS

Page 1 of 1

Sample ID: IDP-3-8'-090202

SAMPLE

Lab Sample ID: OK85S

LIMS ID: 09-3287

Matrix: Soil

Data Release Authorized 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 74.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	48	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-3-11'-090202

SAMPLE

Lab Sample ID: OK85T

LIMS ID: 09-3288

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 78.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-4-4'-090202  
SAMPLE

Lab Sample ID: OK85U

LIMS ID: 09-3289

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 81.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	15	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-4-8'-090202  
SAMPLE

Lab Sample ID: OK85V

LIMS ID: 09-3290

Matrix: Soil

Data Release Authorized 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 74.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	7	17	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-4-11'-090202  
SAMPLE

Lab Sample ID: OK85W

LIMS ID: 09-3291

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 77.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
TOTAL METALS  
Page 1 of 1

Sample ID: IDP-5-4'-090202  
SAMPLE

Lab Sample ID: OK85X  
LIMS ID: 09-3292  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Percent Total Solids: 84.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	60	60	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-5-8'-090202

SAMPLE

Lab Sample ID: OK85Y

LIMS ID: 09-3293

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 76.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	333	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-5-11'-090202

SAMPLE

Lab Sample ID: OK85Z

LIMS ID: 09-3294

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 88.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	5	5	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-6-4'-090202

SAMPLE

Lab Sample ID: OK85AA

LIMS ID: 09-3295

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 86.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-6-8'-090202  
SAMPLE

Lab Sample ID: OK85AB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 76.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	71	
3050B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	0.3	0.3	U
3050B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	0.6	19.2	
3050B	02/09/09	6010B	02/12/09	7440-50-8	Copper	0.3	26.9	
3050B	02/09/09	6010B	02/12/09	7439-92-1	Lead	3	3	
CLP	02/09/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.06	
3050B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	1	153	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
TOTAL METALS  
Page 1 of 1

Sample ID: IDP-6-12'-090202  
SAMPLE

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Percent Total Solids: 85.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	5	5	U
3050B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/09/09	6010B	02/12/09	<b>7440-47-3</b>	<b>Chromium</b>	0.5	9.0	
3050B	02/09/09	6010B	02/12/09	<b>7440-50-8</b>	<b>Copper</b>	0.2	9.1	
3050B	02/09/09	6010B	02/12/09	7439-92-1	Lead	2	2	U
CLP	02/09/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.05	U
3050B	02/09/09	6010B	02/12/09	<b>7440-66-6</b>	<b>Zinc</b>	1	20	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OK85MB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	5	5	U
3050B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	0.5	0.5	U
3050B	02/09/09	6010B	02/12/09	7440-50-8	Copper	0.2	0.2	U
3050B	02/09/09	6010B	02/12/09	7439-92-1	Lead	2	2	U
CLP	02/09/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.05	U
3050B	02/09/09	6010B	02/12/09	<b>7440-66-6</b>	<b>Zinc</b>	1	<b>3</b>	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OK85LCS

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	198	200	99.0%	
Cadmium	6010B	49.5	50.0	99.0%	
Chromium	6010B	48.9	50.0	97.8%	
Copper	6010B	49.6	50.0	99.2%	
Lead	6010B	197	200	98.5%	
Mercury	7471A	1.12	1.00	112%	
Zinc	6010B	50	50	100%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: PZ-7-090202

SAMPLE

Lab Sample ID: OK85A

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.5	5.0	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	2	U
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

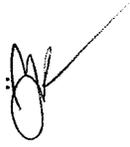
Sample ID: I-104-090202

SAMPLE

Lab Sample ID: OK85B

LIMS ID: 09-3270

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	2,130	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	13	
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	20	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	7.1	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	17	
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	240	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: I-1044-090202

SAMPLE

Lab Sample ID: OK85D

LIMS ID: 09-3272

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	2,270	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	7	
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-1A-GW-090202  
SAMPLE

Lab Sample ID: OK85E  
LIMS ID: 09-3273  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	77.7	

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-2-GW-090202  
SAMPLE

Lab Sample ID: OK85F  
LIMS ID: 09-3274  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	24.4	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-3-GW-090202

SAMPLE

Lab Sample ID: OK85G

LIMS ID: 09-3275

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	12.0	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-4-GW-090202  
SAMPLE

Lab Sample ID: OK85H  
LIMS ID: 09-3276  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	2,360	

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-5-GW-090202  
SAMPLE

Lab Sample ID: OK85I  
LIMS ID: 09-3277  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	1,610	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**DISSOLVED METALS**  
 Page 1 of 1

Sample ID: IDP-6-GW-090202  
**SAMPLE**

Lab Sample ID: OK85J  
 LIMS ID: 09-3278  
 Matrix: Water  
 Data Release Authorized:   
 Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090  
 Date Sampled: 02/02/09  
 Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	1	346	

U-Analyte undetected at given RL  
 RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

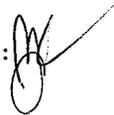
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OK85MB

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	0.2	U
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	2	U
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OK85LCS

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	26.8	25.0	107%	
Cadmium	6010B	532	500	106%	
Chromium	6010B	501	500	100%	
Copper	6010B	495	500	99.0%	
Lead	200.8	28	25	112%	
Mercury	7470A	1.9	2.0	95.0%	
Zinc	6010B	510	500	102%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

February 19, 2009

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Thompson 025173.100**  
**ARI Job: OL19**

Dear Kathryn:

Enclosed, please find e-mail documentation and the original and a revised copy of the Chain-of-Custody (COC) record, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted seven water samples and a trip blank in good condition on February 4, 2009. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for Dissolved Metals, VOCs, SIM cPAHs, PCBs, SVOCs and HCID as requested on the COC.

The VOCs method blanks for 2/13/09 contained naphthalene. All associated samples were non-detect for naphthalene, therefore no further corrective action was taken.

The 2/13/09 VOCs LCSD is out of control high for 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene. The LCS was in control and no further corrective action was taken.

All associated SVOCs were originally analyzed within the method recommended holding time. The samples were re-extracted and re-analyzed outside of the method recommended holding time due to low surrogate and LCS and LCSD spike recoveries. Both sets of data have been included for your review.

The PCB surrogate TCMX is out of control low for the LCS and LCSD. TCMX is not a required surrogate for the PCBs analysis and all other surrogate and spike recoveries were in control, therefore no further corrective action was taken.

The dissolved metals method blank contained arsenic. All associated sample arsenic concentrations were greater than ten times the method blank concentration with the exception of sample **PZ-8-090204**. No further corrective action was taken pending client final review.

There were no other anomalies associated with the analysis of these samples.



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

KB/kb

Enclosures



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

Date 2/4/09  
Page \_\_\_\_\_ of \_\_\_\_\_

# Chain-of-Custody Record

Project Name <u>Boeing Thompson</u> Project No. <u>025173</u>					<b>Testing Parameters</b>										Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____	
Project Location/Event <u>Tukwila/Phase II</u>					<div style="display: flex; justify-content: space-around; font-size: small;"> <span>VOCs</span> <span>Dis Metals</span> <span>TPH-HCID</span> <span>PCBs</span> <span>SVOCs</span> <span>CPAHs</span> </div>											
Sampler's Name <u>Elizabeth Poole/Mark Brunner</u>																
Project Contact <u>Kathryn Hartley</u>																
Send Results To <u>K Hartley, K Lewis, Alkerson</u> <u>K Henderson</u>																
Sample I.D.	Date	Time	Matrix	No. of Containers												Observations/Comments
<u>PZ-8-090204</u>	<u>2/4/09</u>	<u>1402</u>	<u>W</u>	<u>15</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						<u>X</u> Allow water samples to settle, collect aliquot from clear portion
<u>PZ-4-090204</u>		<u>1245</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						
<u>PZ-2-090204</u>		<u>1120</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						
<u>I-206-090204</u>		<u>1200</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						NWTPH-Dx: <u>X</u> run acid wash/silica gel cleanup ___ run samples standardized to _____ product
<u>I-205-090204</u>		<u>910</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						___ Analyze for EPH if no specific product identified
<u>I-203-090204</u>		<u>1233</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						
<del><u>PZ-8-090204</u></del>		<del><u>1402</u></del>	<u>Y</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						
<u>I-2055-090204</u>	<u>W</u>	<u>700</u>	<u>F</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>						VOC/BTEX/VPH (sol): ___ non-preserved ___ preserved w/methanol ___ preserved w/sodium bisulfate ___ Freeze upon receipt
<u>IB</u>				<u>4</u>	<u>X</u>											<u>X</u> Dissolved metal water samples field filtered Other <u>Metals = As, Cd, Cr, Cu, Pb, Hg, Zn</u>

Special Shipment/Handling or Storage Requirements										Method of Shipment									
<b>Relinquished by</b> <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>ZAI</u> Company Date <u>2/4/09</u> Time <u>12:25</u>					<b>Received by</b> <u>Jami Hayes</u> Signature <u>Jami Hayes</u> Printed Name <u>ARI</u> Company Date <u>2/4/09</u> Time <u>16:45</u>					<b>Relinquished by</b> Signature Printed Name Company Date _____ Time _____					<b>Received by</b> Signature Printed Name Company Date _____ Time _____				



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

Date 2/24/09  
Page \_\_\_\_\_ of 1

## Chain-of-Custody Record

Project Name <u>Boeing Thompson</u> Project No. <u>025173.100</u>					Testing Parameters					Turnaround Time	
Project Location/Event <u>Tukwila Phase II</u>					<div style="display: flex; justify-content: space-around; font-size: small;"> <span>VOCs</span> <span>Dis. Metals</span> <span>TPH/HClD</span> <span>PCBs</span> <span>SVOCs</span> <span>CPAHs (OPDS/PAH)</span> </div>					<input checked="" type="checkbox"/> Standard	
Sampler's Name <u>Elizabeth Poole / Mark Brunner</u>										<input type="checkbox"/> Accelerated	
Project Contact <u>Ruthann Hartley</u>										<input type="checkbox"/> _____	
Send Results To <u>R. Hoefly, K Lewis, Alhalverson, K. Handrickson</u>											
Sample I.D.	Date	Time	Matrix	No. of Containers						Observations/Comments	
<u>PZ-8-090204</u>	<u>2/24/09</u>	<u>1402</u>	<u>W</u>	<u>13</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u> Allow water samples to settle, collect aliquot from clear portion
<u>PZ-4-090204</u>		<u>1245</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>PZ-2-090204</u>		<u>1120</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>I-206-090204</u>		<u>1200</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	NWTPH-Dx: <u>X</u> run acid wash/silica gel cleanup
<u>I-205-090204</u>		<u>910</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>   </u> run samples standardized to _____ product
<u>I-203-090204</u>		<u>1233</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>   </u> Analyze for EPH if no specific product identified
<del><u>PZ-8-090204</u></del>		<del><u>1202</u></del>	<u>W</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>I-2055-090204</u>	<u>W</u>	<u>700</u>	<u>F</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	VOC/BTEX/VPH (soil): <u>   </u> non-preserved <u>   </u> preserved w/methanol <u>   </u> preserved w/sodium bisulfate <u>   </u> Freeze upon receipt
<u>TB</u>				<u>24</u>	<u>X</u>						<u>X</u> Dissolved metal water samples field filtered
											Other <u>Metals = As, Cd, Cr, Cu, Pb, Hg, Zn</u>
Special Shipment/Handling or Storage Requirements					Method of Shipment						
Relinquished by <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>ZAI</u> Company Date <u>2/24/09</u> Time <u>12:25</u>			Received by <u>Jammi Hayes</u> Signature <u>Jammi Hayes</u> Printed Name <u>JAI</u> Company Date <u>2/24/09</u> Time <u>12:25</u>			Relinquished by Signature Printed Name Company Date _____ Time _____			Received by Signature Printed Name Company Date _____ Time _____		

**Eric Branson**

---

**From:** "Kelly Bottem" <kellyb@arilabs.com>  
**To:** "Kathryn Hartley" <khartley@landauinc.com>; "Eric Branson" <eric@arilabs.com>  
**Sent:** Monday, February 09, 2009 2:21 PM  
**Subject:** Re: Sample acknowledgement forms for Boeing Isaacson - OL19

Got it. Eric please change ASAP.

K

Kathryn Hartley wrote:

> Kelly,  
>  
>  
>  
> On data package OL19, please make the following changes:  
>  
> - change sample P2-8-090204 to PZ-8-090204  
>  
> - change sample P2-4-090204 to PZ-4-090204  
>  
> - change sample P2-2-090204 to PZ-2-090204  
>  
> - add Thompson to the project name  
>  
>  
>  
> Please confirm that you received this message and let me know if  
you  
> have any questions.  
>  
>  
>  
> Thanks,  
>  
>  
>  
> Kathryn F. Hartley  
>  
> Project Scientist  
>  
> Landau Associates  
>  
> 130 2nd Avenue South  
>  
> Edmonds, WA 98020  
>  
> (425) 329-0268  
>



# Cooler Receipt Form

ARI Client: Landau / Boling Project Name: \_\_\_\_\_  
 COC No: \_\_\_\_\_ Delivered by: Hand  
 Assigned ARI Job No: 0119 Tracking No: \_\_\_\_\_

**Preliminary Examination Phase:**

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? ..... YES  NO
- Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) ..... 8.4, 100.4°C

Cooler Accepted by: JH Date: 2/4/09 Time: 1655

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

- Was a temperature blank included in the cooler? ..... YES  NO
- What kind of packing material was used? ..... BW
- Was sufficient ice used (if appropriate)? ..... YES  NO
- Were all bottles sealed in individual plastic bags? ..... YES  NO
- Did all bottle arrive in good condition (unbroken)? ..... YES  NO
- Were all bottle labels complete and legible? ..... YES  NO
- Did all bottle labels and tags agree with custody papers? ..... YES  NO
- Were all bottles used correct for the requested analyses? ..... YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) ..... YES  NO
- Were all VOC vials free of air bubbles? ..... NA YES  NO
- Was sufficient amount of sample sent in each bottle? ..... YES  NO

Samples Logged by: W Date: 2-5-09 Time: 1015

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

**Explain discrepancies or negative responses:**

I-205-090204 COC, labels read I-205-090203, time was used to match  
I-2055-090204 COC, labels read I-205-090205, time & date used to match

By: JW

Date: 2/4/09

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-8-090204  
SAMPLE

Lab Sample ID: OL19A  
LIMS ID: 09-3526  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 16:51  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-8-090204  
SAMPLE

Lab Sample ID: OL19A  
LIMS ID: 09-3526  
Matrix: Water  
Date Analyzed: 02/10/09 16:51

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.0%	2-Fluorobiphenyl	62.8%
d14-p-Terphenyl	81.6%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	27.5%	2-Fluorophenol	42.9%
2,4,6-Tribromophenol	76.5%	d4-2-Chlorophenol	67.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: P2-8-090204  
SAMPLE

Lab Sample ID: OL19A  
LIMS ID: 09-4566  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 15:04  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: P2-8-090204  
SAMPLE

Lab Sample ID: OL19A  
LIMS ID: 09-4566  
Matrix: Water  
Date Analyzed: 02/14/09 15:04

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	52.8%	2-Fluorobiphenyl	60.0%
d14-p-Terphenyl	68.0%	d4-1,2-Dichlorobenzene	46.0%
d5-Phenol	50.9%	2-Fluorophenol	46.7%
2,4,6-Tribromophenol	70.4%	d4-2-Chlorophenol	49.6%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-4-090204  
SAMPLE

Lab Sample ID: OL19B  
LIMS ID: 09-3527  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 17:26  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-4-090204  
SAMPLE

Lab Sample ID: OL19B  
LIMS ID: 09-3527  
Matrix: Water  
Date Analyzed: 02/10/09 17:26

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	42.0%	2-Fluorobiphenyl	47.2%
d14-p-Terphenyl	76.4%	d4-1,2-Dichlorobenzene	39.6%
d5-Phenol	17.5%	2-Fluorophenol	26.2%
2,4,6-Tribromophenol	73.9%	d4-2-Chlorophenol	44.0%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: P2-4-090204  
SAMPLE

Lab Sample ID: OL19B  
LIMS ID: 09-4567  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 15:39  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: P2-4-090204  
SAMPLE

Lab Sample ID: OL19B  
LIMS ID: 09-4567  
Matrix: Water  
Date Analyzed: 02/14/09 15:39

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	76.4%	2-Fluorobiphenyl	76.4%
d14-p-Terphenyl	74.4%	d4-1,2-Dichlorobenzene	67.2%
d5-Phenol	68.8%	2-Fluorophenol	70.4%
2,4,6-Tribromophenol	82.1%	d4-2-Chlorophenol	72.8%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-2-090204  
SAMPLE

Lab Sample ID: OL19C  
LIMS ID: 09-3528  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 18:00  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-2-090204  
SAMPLE

Lab Sample ID: OL19C  
LIMS ID: 09-3528  
Matrix: Water  
Date Analyzed: 02/10/09 18:00

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	59.6%	2-Fluorobiphenyl	58.0%
d14-p-Terphenyl	86.4%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	24.1%	2-Fluorophenol	39.2%
2,4,6-Tribromophenol	84.0%	d4-2-Chlorophenol	62.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: P2-2-090204  
SAMPLE

Lab Sample ID: OL19C

QC Report No: OL19-The Boeing Company

LIMS ID: 09-4568

Project: TUKWILA/ PHASE 2

Matrix: Water

025173.100

Data Release Authorized: *VRS*

Date Sampled: 02/04/09

Reported: 02/17/09

Date Received: 02/04/09

Date Extracted: 02/12/09

Sample Amount: 500 mL

Date Analyzed: 02/14/09 16:14

Final Extract Volume: 0.50 mL

Instrument/Analyst: NT4/LJR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: P2-2-090204  
SAMPLE

Lab Sample ID: OL19C  
LIMS ID: 09-4568  
Matrix: Water  
Date Analyzed: 02/14/09 16:14

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>1.8</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	76.0%	2-Fluorobiphenyl	73.2%
d14-p-Terphenyl	64.8%	d4-1,2-Dichlorobenzene	67.6%
d5-Phenol	66.9%	2-Fluorophenol	70.1%
2,4,6-Tribromophenol	75.7%	d4-2-Chlorophenol	72.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-206-090204  
SAMPLE

Lab Sample ID: OL19D  
LIMS ID: 09-3529  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 18:35  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-206-090204  
SAMPLE

Lab Sample ID: OL19D  
LIMS ID: 09-3529  
Matrix: Water  
Date Analyzed: 02/10/09 18:35

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in µg/L (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	61.2%	2-Fluorobiphenyl	60.8%
d14-p-Terphenyl	88.0%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	25.1%	2-Fluorophenol	40.0%
2,4,6-Tribromophenol	86.7%	d4-2-Chlorophenol	65.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-206-090204  
SAMPLE

Lab Sample ID: OL19D  
LIMS ID: 09-4569  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 16:49  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-206-090204  
SAMPLE

Lab Sample ID: OL19D  
LIMS ID: 09-4569  
Matrix: Water  
Date Analyzed: 02/14/09 16:49

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>4.2</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	75.2%	2-Fluorobiphenyl	77.2%
d14-p-Terphenyl	77.2%	d4-1,2-Dichlorobenzene	66.0%
d5-Phenol	68.3%	2-Fluorophenol	68.8%
2,4,6-Tribromophenol	84.8%	d4-2-Chlorophenol	70.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-205-090204  
SAMPLE

Lab Sample ID: OL19E  
LIMS ID: 09-3530  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 19:10  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-205-090204  
SAMPLE

Lab Sample ID: OL19E  
LIMS ID: 09-3530  
Matrix: Water  
Date Analyzed: 02/10/09 19:10

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	38.6%	2-Fluorobiphenyl	42.8%
d14-p-Terphenyl	74.8%	d4-1,2-Dichlorobenzene	38.6%
d5-Phenol	14.5%	2-Fluorophenol	22.5%
2,4,6-Tribromophenol	72.5%	d4-2-Chlorophenol	39.2%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-205-090204  
SAMPLE

Lab Sample ID: OL19E  
LIMS ID: 09-4570  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 17:23  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-205-090204  
SAMPLE

Lab Sample ID: OL19E  
LIMS ID: 09-4570  
Matrix: Water  
Date Analyzed: 02/14/09 17:23

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	66.0%
d14-p-Terphenyl	65.6%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	58.4%	2-Fluorophenol	57.9%
2,4,6-Tribromophenol	77.9%	d4-2-Chlorophenol	60.0%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F  
LIMS ID: 09-3531  
Matrix: Water  
Data Release Authorized: *B*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 19:45  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F  
LIMS ID: 09-3531  
Matrix: Water  
Date Analyzed: 02/10/09 19:45

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Indeno(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	59.2%	2-Fluorobiphenyl	58.8%
d14-p-Terphenyl	88.4%	d4-1,2-Dichlorobenzene	58.8%
d5-Phenol	25.4%	2-Fluorophenol	40.0%
2,4,6-Tribromophenol	86.1%	d4-2-Chlorophenol	63.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F  
LIMS ID: 09-4571  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 17:58  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F  
LIMS ID: 09-4571  
Matrix: Water  
Date Analyzed: 02/14/09 17:58

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.0%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	75.6%	d4-1,2-Dichlorobenzene	63.2%
d5-Phenol	63.5%	2-Fluorophenol	65.9%
2,4,6-Tribromophenol	78.1%	d4-2-Chlorophenol	68.0%



ORGANICS ANALYSIS DATA SHEET  
 Semivolatiles by SW8270D GC/MS  
 Page 1 of 2

Sample ID: I-2055-090204  
 SAMPLE

Lab Sample ID: OL19G  
 LIMS ID: 09-3532  
 Matrix: Water  
 Data Release Authorized:   
 Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
 Project: Thompson - Tukwila Phase II  
 025173.100  
 Date Sampled: 02/04/09  
 Date Received: 02/04/09

Date Extracted: 02/06/09  
 Date Analyzed: 02/10/09 20:19  
 Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-2055-090204  
SAMPLE

Lab Sample ID: OL19G  
LIMS ID: 09-3532  
Matrix: Water  
Date Analyzed: 02/10/09 20:19

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	61.6%	2-Fluorobiphenyl	59.6%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	24.0%	2-Fluorophenol	38.9%
2,4,6-Tribromophenol	76.5%	d4-2-Chlorophenol	63.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-2055-090204  
SAMPLE

Lab Sample ID: OL19G  
LIMS ID: 09-4572  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 18:33  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
97-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-2055-090204  
SAMPLE

Lab Sample ID: OL19G  
LIMS ID: 09-4572  
Matrix: Water  
Date Analyzed: 02/14/09 18:33

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	52.4%	2-Fluorobiphenyl	55.6%
d14-p-Terphenyl	66.0%	d4-1,2-Dichlorobenzene	47.6%
d5-Phenol	49.1%	2-Fluorophenol	47.5%
2,4,6-Tribromophenol	82.7%	d4-2-Chlorophenol	49.6%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: MB-020609  
METHOD BLANKLab Sample ID: MB-020609  
LIMS ID: 09-3526  
Matrix: Water  
Data Release Authorized: *RB*  
Reported: 02/12/09QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: NA  
Date Received: NADate Extracted: 02/06/09  
Date Analyzed: 02/10/09 12:49  
Instrument/Analyst: NT4/LJRSample Amount: 500 mL  
Final Extract Volume: 0.50 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3526  
Matrix: Water  
Date Analyzed: 02/10/09 12:49

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	58.4%
d14-p-Terphenyl	83.6%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	30.7%	2-Fluorophenol	45.6%
2,4,6-Tribromophenol	70.9%	d4-2-Chlorophenol	69.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209  
LIMS ID: 09-4566  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 11:35  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209  
LIMS ID: 09-4566  
Matrix: Water  
Date Analyzed: 02/14/09 11:35

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	72.0%	2-Fluorophenol	70.9%
2,4,6-Tribromophenol	74.9%	d4-2-Chlorophenol	74.1%

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-020609	62.8%	58.4%	83.6%	64.4%	30.7%	45.6%	70.9%	69.1%	0	
LCS-020609	67.2%	67.6%	78.4%	69.2%	33.3%	48.5%	80.3%	75.2%	0	
LCS-D-020609	63.2%	69.6%	84.4%	65.2%	32.0%	45.6%	85.9%	69.9%	0	
PZ-8-090204	64.0%	62.8%	81.6%	65.6%	27.5%	42.9%	76.5%	67.5%	0	
PZ-4-090204	42.0%*	47.2%*	76.4%	39.6%*	17.5%	26.2%	73.9%	44.0%	3	
PZ-2-090204	59.6%	58.0%	86.4%	60.4%	24.1%	39.2%	84.0%	62.7%	0	
I-206-090204	61.2%	60.8%	88.0%	60.4%	25.1%	40.0%	86.7%	65.1%	0	
I-205-090204	38.6%*	42.8%*	74.8%	38.6%*	14.5%	22.5%*	72.5%	39.2%*	5	
I-203-090204	59.2%	58.8%	88.4%	58.8%	25.4%	40.0%	86.1%	63.7%	0	
I-2055-090204	61.6%	59.6%	79.2%	62.4%	24.0%	38.9%	76.5%	63.7%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(50-104)	(45-98)
(FBP) = 2-Fluorobiphenyl	(49-98)	(53-89)
(TPH) = d14-p-Terphenyl	(48-120)	(46-119)
(DCB) = d4-1,2-Dichlorobenzene	(40-92)	(41-87)
(PHL) = d5-Phenol	(20-62)	(10-66)
(2FP) = 2-Fluorophenol	(17-98)	(23-74)
(TBP) = 2,4,6-Tribromophenol	(56-110)	(51-105)
(2CP) = d4-2-Chlorophenol	(51-97)	(42-93)

Prep Method: SW3510C  
Log Number Range: 09-3526 to 09-3532

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-021209	74.8%	70.4%	82.4%	61.2%	72.0%	70.9%	74.9%	74.1%	0	
LCS-021209	76.0%	71.2%	90.0%	65.6%	79.2%	72.5%	93.1%	75.5%	0	
LCSD-021209	70.0%	75.2%	82.0%	59.2%	67.7%	63.7%	90.9%	65.6%	0	
P2-8-090204	52.8%	60.0%	68.0%	46.0%	50.9%	46.7%	70.4%	49.6%	0	
P2-4-090204	76.4%	76.4%	74.4%	67.2%	68.8%	70.4%	82.1%	72.8%	0	
P2-2-090204	76.0%	73.2%	64.8%	67.6%	66.9%	70.1%	75.7%	72.5%	0	
I-206-090204	75.2%	77.2%	77.2%	66.0%	68.3%	68.8%	84.8%	70.1%	0	
I-205-090204	62.8%	66.0%	65.6%	54.8%	58.4%	57.9%	77.9%	60.0%	0	
I-203-090204	70.0%	72.0%	75.6%	63.2%	63.5%	65.9%	78.1%	68.0%	0	
I-2055-090204	52.4%	55.6%	66.0%	47.6%	49.1%	47.5%	82.7%	49.6%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C  
Log Number Range: 09-4566 to 09-4572

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3526  
Matrix: Water  
Data Release Authorized: *BB*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/06/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/10/09 13:24

Final Extract Volume LCS: 0.50 mL

LCSD: 02/10/09 13:59

LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR

Dilution Factor LCS: 1.00

LCSD: NT4/LJR

LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	7.5	25.0	30.0%	7.2	25.0	28.8%	3.0%	
Bis-(2-Chloroethyl) Ether	18.7	25.0	74.8%	17.9	25.0	71.6%	4.4%	
2-Chlorophenol	18.1	25.0	72.4%	16.9	25.0	67.6%	6.9%	
1,3-Dichlorobenzene	16.7	25.0	66.8%	16.1	25.0	64.4%	3.7%	
1,4-Dichlorobenzene	16.6	25.0	66.4%	16.2	25.0	64.8%	2.4%	
Benzyl Alcohol	18.2	50.0	36.4%	18.3	50.0	36.6%	0.5%	
1,2-Dichlorobenzene	17.6	25.0	70.4%	17.0	25.0	68.0%	3.5%	
2-Methylphenol	16.1	25.0	64.4%	15.6	25.0	62.4%	3.2%	
2,2'-Oxybis(1-Chloropropane)	14.3	25.0	57.2%	13.8	25.0	55.2%	3.6%	
4-Methylphenol	30.9	50.0	61.8%	30.7	50.0	61.4%	0.6%	
N-Nitroso-Di-N-Propylamine	16.5	25.0	66.0%	16.4	25.0	65.6%	0.6%	
Hexachloroethane	16.6	25.0	66.4%	16.2	25.0	64.8%	2.4%	
Nitrobenzene	16.2	25.0	64.8%	15.7	25.0	62.8%	3.1%	
Isophorone	17.8	25.0	71.2%	18.1	25.0	72.4%	1.7%	
2-Nitrophenol	18.4	25.0	73.6%	17.8	25.0	71.2%	3.3%	
2,4-Dimethylphenol	12.9	25.0	51.6%	12.5	25.0	50.0%	3.1%	
Benzoic Acid	28.2	75.0	37.6%	29.6	75.0	39.5%	4.8%	
bis(2-Chloroethoxy) Methane	17.7	25.0	70.8%	17.6	25.0	70.4%	0.6%	
2,4-Dichlorophenol	18.4	25.0	73.6%	18.0	25.0	72.0%	2.2%	
1,2,4-Trichlorobenzene	16.4	25.0	65.6%	16.0	25.0	64.0%	2.5%	
Naphthalene	17.8	25.0	71.2%	17.3	25.0	69.2%	2.8%	
4-Chloroaniline	< 5.0	60.0	NA	< 5.0	60.0	NA	NA	
Hexachlorobutadiene	16.1	25.0	64.4%	15.5	25.0	62.0%	3.8%	
4-Chloro-3-methylphenol	18.5	25.0	74.0%	19.1	25.0	76.4%	3.2%	
2-Methylnaphthalene	18.3	25.0	73.2%	18.1	25.0	72.4%	1.1%	
Hexachlorocyclopentadiene	45.9	75.0	61.2%	45.8	75.0	61.1%	0.2%	
2,4,6-Trichlorophenol	17.3	25.0	69.2%	18.1	25.0	72.4%	4.5%	
2,4,5-Trichlorophenol	18.2	25.0	72.8%	18.4	25.0	73.6%	1.1%	
2-Chloronaphthalene	17.5	25.0	70.0%	17.9	25.0	71.6%	2.3%	
2-Nitroaniline	16.7	25.0	66.8%	17.6	25.0	70.4%	5.2%	
Dimethylphthalate	19.1	25.0	76.4%	20.4	25.0	81.6%	6.6%	
Acenaphthylene	18.3	25.0	73.2%	19.0	25.0	76.0%	3.8%	
3-Nitroaniline	17.7	64.0	27.7%	19.7	64.0	30.8%	10.7%	
Acenaphthene	17.9	25.0	71.6%	18.4	25.0	73.6%	2.8%	
2,4-Dinitrophenol	75.8	75.0	101%	85.7	75.0	114%	12.3%	
4-Nitrophenol	9.6	25.0	38.4%	10.2	25.0	40.8%	6.3%	
Dibenzofuran	18.4	25.0	73.6%	19.4	25.0	77.6%	5.3%	
2,6-Dinitrotoluene	18.6	25.0	74.4%	19.8	25.0	79.2%	6.2%	
2,4-Dinitrotoluene	19.7	25.0	78.8%	21.1	25.0	84.4%	6.9%	
Diethylphthalate	19.1	25.0	76.4%	20.7	25.0	82.8%	8.0%	
4-Chlorophenyl-phenylether	18.0	25.0	72.0%	19.0	25.0	76.0%	5.4%	
Fluorene	19.2	25.0	76.8%	20.1	25.0	80.4%	6.1%	
4-Nitroaniline	17.6	25.0	70.4%	18.7	25.0	74.8%	6.1%	
4,6-Dinitro-2-Methylphenol	68.3	75.0	91.1%	76.8	75.0	102%	11.7%	
N-Nitrosodiphenylamine	16.9	25.0	67.6%	18.1	25.0	72.4%	6.9%	

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3526  
Matrix: Water  
Date Analyzed: 02/10/09 13:24

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	16.8	25.0	67.2%	18.1	25.0	72.4%	7.4%
Hexachlorobenzene	17.2	25.0	68.8%	18.4	25.0	73.6%	6.7%
Pentachlorophenol	18.7	25.0	74.8%	20.5	25.0	82.0%	9.2%
Phenanthrene	18.8	28.0	67.1%	20.0	28.0	71.4%	6.2%
Carbazole	19.9	25.0	79.6%	21.4	25.0	85.6%	7.3%
Anthracene	18.3	25.0	73.2%	19.5	25.0	78.0%	6.3%
Di-n-Butylphthalate	19.3	25.0	77.2%	20.8	25.0	83.2%	7.5%
Fluoranthene	19.0	25.0	76.0%	20.3	25.0	81.2%	6.6%
Pyrene	19.7	25.0	78.8%	21.4	25.0	85.6%	8.3%
Butylbenzylphthalate	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
3,3'-Dichlorobenzidine	34.0	64.0	53.1%	41.0	64.0	64.1%	18.7%
Benzo(a)anthracene	18.5	25.0	74.0%	20.2	25.0	80.8%	8.8%
bis(2-Ethylhexyl)phthalate	19.8	25.0	79.2%	22.0	25.0	88.0%	10.5%
Chrysene	18.6	28.0	66.4%	19.8	28.0	70.7%	6.2%
Di-n-Octyl phthalate	18.4	25.0	73.6%	19.9	25.0	79.6%	7.8%
Benzo(b)fluoranthene	20.1	25.0	80.4%	22.5	25.0	90.0%	11.3%
Benzo(k)fluoranthene	19.9	28.0	71.1%	21.2	28.0	75.7%	6.3%
Benzo(a)pyrene	15.5	25.0	62.0%	17.3	25.0	69.2%	11.0%
Indeno(1,2,3-cd)pyrene	17.6	25.0	70.4%	19.4	25.0	77.6%	9.7%
Dibenz(a,h)anthracene	17.7	25.0	70.8%	19.4	25.0	77.6%	9.2%
Benzo(g,h,i)perylene	16.9	25.0	67.6%	18.5	25.0	74.0%	9.0%
1-Methylnaphthalene	19.5	25.0	78.0%	19.8	25.0	79.2%	1.5%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	67.2%	63.2%
2-Fluorobiphenyl	67.6%	69.6%
d14-p-Terphenyl	78.4%	84.4%
d4-1,2-Dichlorobenzene	69.2%	65.2%
d5-Phenol	33.3%	32.0%
2-Fluorophenol	48.5%	45.6%
2,4,6-Tribromophenol	80.3%	85.9%
d4-2-Chlorophenol	75.2%	69.9%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4566  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/12/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/14/09 12:09  
LCSD: 02/14/09 12:44

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	19.5	25.0	78.0%	16.5	25.0	66.0%	16.7%
Bis-(2-Chloroethyl) Ether	18.2	25.0	72.8%	16.1	25.0	64.4%	12.2%
2-Chlorophenol	18.5	25.0	74.0%	16.2	25.0	64.8%	13.3%
1,3-Dichlorobenzene	12.6	25.0	50.4%	11.6	25.0	46.4%	8.3%
1,4-Dichlorobenzene	13.0	25.0	52.0%	12.0	25.0	48.0%	8.0%
Benzyl Alcohol	35.1	50.0	70.2%	31.2	50.0	62.4%	11.8%
1,2-Dichlorobenzene	13.6	25.0	54.4%	12.4	25.0	49.6%	9.2%
2-Methylphenol	18.8	25.0	75.2%	16.2	25.0	64.8%	14.9%
2,2'-Oxybis(1-Chloropropane)	19.0	25.0	76.0%	16.8	25.0	67.2%	12.3%
4-Methylphenol	38.9	50.0	77.8%	34.1	50.0	68.2%	13.2%
N-Nitroso-Di-N-Propylamine	18.9	25.0	75.6%	17.0	25.0	68.0%	10.6%
Hexachloroethane	11.4	25.0	45.6%	10.6	25.0	42.4%	7.3%
Nitrobenzene	18.7	25.0	74.8%	17.6	25.0	70.4%	6.1%
Isophorone	20.1	25.0	80.4%	19.6	25.0	78.4%	2.5%
2-Nitrophenol	18.4	25.0	73.6%	17.6	25.0	70.4%	4.4%
2,4-Dimethylphenol	18.0	25.0	72.0%	16.7	25.0	66.8%	7.5%
Benzoic Acid	64.1	75.0	85.5%	59.9	75.0	79.9%	6.8%
bis(2-Chloroethoxy) Methane	18.3	25.0	73.2%	17.8	25.0	71.2%	2.8%
2,4-Dichlorophenol	19.1	25.0	76.4%	18.6	25.0	74.4%	2.7%
1,2,4-Trichlorobenzene	13.8	25.0	55.2%	14.0	25.0	56.0%	1.4%
Naphthalene	16.4	25.0	65.6%	15.7	25.0	62.8%	4.4%
4-Chloroaniline	56.2	60.0	93.7%	52.5	60.0	87.5%	6.8%
Hexachlorobutadiene	11.9	25.0	47.6%	12.7	25.0	50.8%	6.5%
4-Chloro-3-methylphenol	20.9	25.0	83.6%	20.1	25.0	80.4%	3.9%
2-Methylnaphthalene	17.0	25.0	68.0%	16.8	25.0	67.2%	1.2%
Hexachlorocyclopentadiene	31.3	75.0	41.7%	38.6	75.0	51.5%	20.9%
2,4,6-Trichlorophenol	18.9	25.0	75.6%	20.4	25.0	81.6%	7.6%
2,4,5-Trichlorophenol	19.6	25.0	78.4%	20.7	25.0	82.8%	5.5%
2-Chloronaphthalene	16.2	25.0	64.8%	17.8	25.0	71.2%	9.4%
2-Nitroaniline	21.8	25.0	87.2%	22.0	25.0	88.0%	0.9%
Dimethylphthalate	21.0	25.0	84.0%	21.2	25.0	84.8%	0.9%
Acenaphthylene	18.4	25.0	73.6%	19.4	25.0	77.6%	5.3%
3-Nitroaniline	65.7	64.0	103%	63.6	64.0	99.4%	3.2%
Acenaphthene	18.4	25.0	73.6%	19.8	25.0	79.2%	7.3%
2,4-Dinitrophenol	93.0	75.0	124%	93.8	75.0	125%	0.9%
4-Nitrophenol	22.4	25.0	89.6%	21.8	25.0	87.2%	2.7%
Dibenzofuran	19.3	25.0	77.2%	20.2	25.0	80.8%	4.6%
2,6-Dinitrotoluene	21.2	25.0	84.8%	21.2	25.0	84.8%	0.0%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4566  
Matrix: Water  
Date Analyzed: 02/14/09 12:09

QC Report No: OL19-The Boeing Company  
Project: TUKWILA/ PHASE 2  
025173.100

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrotoluene	22.0	25.0	88.0%	21.6	25.0	86.4%	1.8%
Diethylphthalate	20.4	25.0	81.6%	20.2	25.0	80.8%	1.0%
4-Chlorophenyl-phenylether	19.7	25.0	78.8%	20.2	25.0	80.8%	2.5%
Fluorene	20.4	25.0	81.6%	20.8	25.0	83.2%	1.9%
4-Nitroaniline	21.4	25.0	85.6%	20.4	25.0	81.6%	4.8%
4,6-Dinitro-2-Methylphenol	76.5	75.0	102%	80.2	75.0	107%	4.7%
N-Nitrosodiphenylamine	19.2	25.0	76.8%	20.2	25.0	80.8%	5.1%
4-Bromophenyl-phenylether	18.9	25.0	75.6%	20.7	25.0	82.8%	9.1%
Hexachlorobenzene	19.6	25.0	78.4%	21.6	25.0	86.4%	9.7%
Pentachlorophenol	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
Phenanthrene	20.5	25.0	82.0%	21.6	25.0	86.4%	5.2%
Carbazole	20.8	25.0	83.2%	21.2	25.0	84.8%	1.9%
Anthracene	19.8	25.0	79.2%	21.0	25.0	84.0%	5.9%
Di-n-Butylphthalate	20.4	25.0	81.6%	21.3	25.0	85.2%	4.3%
Fluoranthene	20.2	25.0	80.8%	21.9	25.0	87.6%	8.1%
Pyrene	21.1	25.0	84.4%	19.6	25.0	78.4%	7.4%
Butylbenzylphthalate	20.9	25.0	83.6%	20.2	25.0	80.8%	3.4%
3,3'-Dichlorobenzidine	52.2	64.0	81.6%	57.5	64.0	89.8%	9.7%
Benzo(a)anthracene	20.4	25.0	81.6%	21.4	25.0	85.6%	4.8%
bis(2-Ethylhexyl)phthalate	21.0	25.0	84.0%	20.8	25.0	83.2%	1.0%
Chrysene	19.9	25.0	79.6%	20.9	25.0	83.6%	4.9%
Di-n-Octyl phthalate	20.2	25.0	80.8%	21.8	25.0	87.2%	7.6%
Benzo(b)fluoranthene	19.6	25.0	78.4%	22.0	25.0	88.0%	11.5%
Benzo(k)fluoranthene	22.6	25.0	90.4%	21.1	25.0	84.4%	6.9%
Benzo(a)pyrene	16.6	25.0	66.4%	17.8	25.0	71.2%	7.0%
Indeno(1,2,3-cd)pyrene	19.4	25.0	77.6%	22.0	25.0	88.0%	12.6%
Dibenz(a,h)anthracene	18.9	25.0	75.6%	21.5	25.0	86.0%	12.9%
Benzo(g,h,i)perylene	18.4	25.0	73.6%	20.7	25.0	82.8%	11.8%
1-Methylnaphthalene	18.0	25.0	72.0%	17.8	25.0	71.2%	1.1%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	76.0%	70.0%
2-Fluorobiphenyl	71.2%	75.2%
d14-p-Terphenyl	90.0%	82.0%
d4-1,2-Dichlorobenzene	65.6%	59.2%
d5-Phenol	79.2%	67.7%
2-Fluorophenol	72.5%	63.7%
2,4,6-Tribromophenol	93.1%	90.9%
d4-2-Chlorophenol	75.5%	65.6%

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

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 1

Matrix: Water

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Data Release Authorized: *[Signature]*

Reported: 02/09/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-020609 09-3526	Method Blank	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	76.8%
OL19A 09-3526	PZ-8-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	81.6%
OL19B 09-3527	PZ-4-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	85.8%
OL19C 09-3528	PZ-2-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	85.9%
OL19D 09-3529	I-206-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	86.0%
OL19E 09-3530	I-205-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	76.7%
OL19F 09-3531	I-203-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	82.7%
OL19G 09-3532	I-2055-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	88.0%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-020609	76.8%	0
LCS-020609	89.6%	0
LCSD-020609	88.1%	0
PZ-8-090204	81.6%	0
PZ-4-090204	85.8%	0
PZ-2-090204	85.9%	0
I-206-090204	86.0%	0
I-205-090204	76.7%	0
I-203-090204	82.7%	0
I-2055-090204	88.0%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 09-3526 to 09-3532

ORGANICS ANALYSIS DATA SHEET  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1

Sample ID: LCS-020609  
 LCS/LCSD

Lab Sample ID: LCS-020609  
 LIMS ID: 09-3526  
 Matrix: Water  
 Data Release Authorized: *[Signature]*  
 Reported: 02/09/09

QC Report No: OL19-The Boeing Company  
 Project: Thompson - Tukwila Phase II  
 025173.100  
 Date Sampled: 02/04/09  
 Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/06/09

Sample Amount LCS: 500 mL  
 LCSD: 500 mL

Date Analyzed LCS: 02/07/09 02:17  
 LCSD: 02/07/09 02:35

Final Extract Volume LCS: 1.0 mL  
 LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS  
 LCSD: FID/MS

Dilution Factor LCS: 1.00  
 LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.45	3.00	81.7%	2.41	3.00	80.3%	1.6%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	89.6%	88.1%

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

TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water  
Date Received: 02/04/09

ARI Job: OL19  
Project: Thompson - Tukwila Phase II  
025173.100

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
09-3526-020609MB	Method Blank	500 mL	1.00 mL	02/06/09
09-3526-020609LCS	Lab Control	500 mL	1.00 mL	02/06/09
09-3526-020609LCSD	Lab Control Dup	500 mL	1.00 mL	02/06/09
09-3526-OL19A	PZ-8-090204	500 mL	1.00 mL	02/06/09
09-3527-OL19B	PZ-4-090204	500 mL	1.00 mL	02/06/09
09-3528-OL19C	PZ-2-090204	500 mL	1.00 mL	02/06/09
09-3529-OL19D	I-206-090204	500 mL	1.00 mL	02/06/09
09-3530-OL19E	I-205-090204	500 mL	1.00 mL	02/06/09
09-3531-OL19F	I-203-090204	500 mL	1.00 mL	02/06/09
09-3532-OL19G	I-2055-090204	500 mL	1.00 mL	02/06/09

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: PZ-8-090204

Page 1 of 2

SAMPLE

Lab Sample ID: OL19A

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3526

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Data Release Authorized: 

Date Sampled: 02/04/09

Reported: 02/18/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 15:38

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-8-090204

Page 2 of 2

SAMPLE

Lab Sample ID: OL19A

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3526

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 15:38

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	99.6%
Bromofluorobenzene	96.7%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-4-090204

Page 1 of 2

SAMPLE

Lab Sample ID: OL19B

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3527

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Data Release Authorized:

Date Sampled: 02/04/09

Reported: 02/18/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/14/09 00:04

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>2.5</b>	<b>3.0</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-4-090204

Page 2 of 2

SAMPLE

Lab Sample ID: OL19B

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3527

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/14/09 00:04

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	103%
d8-Toluene	99.0%
Bromofluorobenzene	95.9%
d4-1,2-Dichlorobenzene	102%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: PZ-2-090204

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SAMPLE

Lab Sample ID: OL19C

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3528

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Data Release Authorized:

Date Sampled: 02/04/09

Reported: 02/18/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 21:49

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>2.5</b>	<b>2.6</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>0.2</b>	<b>0.5</b>	
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
<b>78-87-5</b>	<b>1,2-Dichloropropane</b>	<b>0.2</b>	<b>0.3</b>	
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-2-090204

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SAMPLE

Lab Sample ID: OL19C

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3528

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 21:49

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	97.7%
Bromofluorobenzene	95.1%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-206-090204

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SAMPLE

Lab Sample ID: OL19D

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3529

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Data Release Authorized: 

Date Sampled: 02/04/09

Reported: 02/18/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 22:16

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>1.8</b>	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	<b>Acetone</b>	<b>2.5</b>	<b>4.2</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	<b>1,1-Dichloroethane</b>	<b>0.2</b>	<b>0.3</b>	
156-60-5	<b>trans-1,2-Dichloroethene</b>	<b>0.2</b>	<b>0.4</b>	
156-59-2	<b>cis-1,2-Dichloroethene</b>	<b>0.2</b>	<b>0.7</b>	
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-206-090204

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SAMPLE

Lab Sample ID: OL19D

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3529

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 22:16

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	97.1%
Bromofluorobenzene	97.0%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-205-090204

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**SAMPLE**

Lab Sample ID: OL19E

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3530

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Data Release Authorized:

Date Sampled: 02/04/09

Reported: 02/18/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 22:43

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-205-090204

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SAMPLE

Lab Sample ID: OL19E

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3530

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 22:43

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	99.1%
Bromofluorobenzene	95.9%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F

LIMS ID: 09-3531

Matrix: Water

Data Release Authorized:

Reported: 02/18/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 02/13/09 23:10

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>2.5</b>	<b>3.1</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>0.2</b>	<b>1.3</b>	
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-203-090204

Page 2 of 2

SAMPLE

Lab Sample ID: OL19F

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3531

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 23:10

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	101%
Bromofluorobenzene	95.8%
d4-1,2-Dichlorobenzene	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: I-2055-090204  
SAMPLE

Lab Sample ID: OL19G

LIMS ID: 09-3532

Matrix: Water

Data Release Authorized:

Reported: 02/18/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 02/13/09 23:37

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-2055-090204

Page 2 of 2

SAMPLE

Lab Sample ID: OL19G

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3532

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 23:37

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	104%
d8-Toluene	97.4%
Bromofluorobenzene	95.3%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: TB  
SAMPLE

Lab Sample ID: OL19H

LIMS ID: 09-3533

Matrix: Water

Data Release Authorized:

Reported: 02/18/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 02/13/09 15:11

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	0.2	
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TB

Page 2 of 2

SAMPLE

Lab Sample ID: OL19H

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3533

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 15:11

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	99.7%
Bromofluorobenzene	97.0%
d4-1,2-Dichlorobenzene	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: MB-021309  
METHOD BLANK

Lab Sample ID: MB-021309  
LIMS ID: 09-3527  
Matrix: Water  
Data Release Authorized:  
Reported: 02/18/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT5/JZ  
Date Analyzed: 02/13/09 20:01

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021309

Page 2 of 2

METHOD BLANK

Lab Sample ID: MB-021309

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3527

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Date Analyzed: 02/13/09 20:01

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	0.5	
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.8%
d8-Toluene	100%
Bromofluorobenzene	97.5%
d4-1,2-Dichlorobenzene	98.6%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021309

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-021309

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3526

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Data Release Authorized:

Date Sampled: NA

Reported: 02/18/09

Date Received: NA

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 12:02

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: MB-021309  
METHOD BLANK

Lab Sample ID: MB-021309  
LIMS ID: 09-3526  
Matrix: Water  
Date Analyzed: 02/13/09 12:02

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	<b>Naphthalene</b>	<b>0.5</b>	<b>0.5</b>	
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.0%
d8-Toluene	99.0%
Bromofluorobenzene	94.6%
d4-1,2-Dichlorobenzene	100%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: OL19-The Boeing Company  
 Project: Thompson - Tukwila Phase II  
 025173.100

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-021309	Method Blank	10	98.0%	99.0%	94.6%	100%	0
LCS-021309	Lab Control	10	99.5%	100%	100%	101%	0
LCSD-021309	Lab Control Dup	10	99.8%	100%	101%	101%	0
OL19A	PZ-8-090204	10	101%	99.6%	96.7%	102%	0
MB-021309	Method Blank	10	98.8%	100%	97.5%	98.6%	0
LCS-021309	Lab Control	10	98.8%	101%	99.8%	98.1%	0
LCSD-021309	Lab Control Dup	10	101%	99.3%	97.1%	101%	0
OL19B	PZ-4-090204	10	103%	99.0%	95.9%	102%	0
OL19C	PZ-2-090204	10	102%	97.7%	95.1%	101%	0
OL19D	I-206-090204	10	101%	97.1%	97.0%	101%	0
OL19E	I-205-090204	10	102%	99.1%	95.9%	101%	0
OL19F	I-203-090204	10	101%	101%	95.8%	100%	0
OL19G	I-2055-090204	10	104%	97.4%	95.3%	101%	0
OL19H	TB	10	102%	99.7%	97.0%	100%	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

70-130  
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 70-130

Prep Method: SW5030B  
 Log Number Range: 09-3526 to 09-3533

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: LCS-021309  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021309  
LIMS ID: 09-3526  
Matrix: Water  
Data Release Authorized:   
Reported: 02/18/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst LCS: NT5/JZ  
LCSD: NT5/JZ  
Date Analyzed LCS: 02/13/09 11:05  
LCSD: 02/13/09 11:35

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

Analyte	Spike		LCS		Spike		LCSD	
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	RPD	
Chloromethane	18.2	20.0	91.0%	18.6	20.0	93.0%	2.2%	
Bromomethane	21.7	20.0	108%	22.6	20.0	113%	4.1%	
Vinyl Chloride	19.2	20.0	96.0%	19.8	20.0	99.0%	3.1%	
Chloroethane	18.6	20.0	93.0%	19.4	20.0	97.0%	4.2%	
Methylene Chloride	20.6	20.0	103%	20.9	20.0	104%	1.4%	
Acetone	108	100	108%	103	100	103%	4.7%	
Carbon Disulfide	16.7	20.0	83.5%	21.9	20.0	110%	26.9%	
1,1-Dichloroethene	18.9	20.0	94.5%	19.6	20.0	98.0%	3.6%	
1,1-Dichloroethane	19.1	20.0	95.5%	19.7	20.0	98.5%	3.1%	
trans-1,2-Dichloroethene	18.8	20.0	94.0%	19.5	20.0	97.5%	3.7%	
cis-1,2-Dichloroethene	19.1	20.0	95.5%	19.9	20.0	99.5%	4.1%	
Chloroform	18.9	20.0	94.5%	19.4	20.0	97.0%	2.6%	
1,2-Dichloroethane	19.3	20.0	96.5%	19.8	20.0	99.0%	2.6%	
2-Butanone	109	100	109%	104	100	104%	4.7%	
1,1,1-Trichloroethane	18.7	20.0	93.5%	19.4	20.0	97.0%	3.7%	
Carbon Tetrachloride	19.1	20.0	95.5%	19.5	20.0	97.5%	2.1%	
Vinyl Acetate	21.3	20.0	106%	21.2	20.0	106%	0.5%	
Bromodichloromethane	19.2	20.0	96.0%	19.5	20.0	97.5%	1.6%	
1,2-Dichloropropane	19.4	20.0	97.0%	19.8	20.0	99.0%	2.0%	
cis-1,3-Dichloropropene	19.9	20.0	99.5%	20.2	20.0	101%	1.5%	
Trichloroethene	19.2	20.0	96.0%	19.8	20.0	99.0%	3.1%	
Dibromochloromethane	20.0	20.0	100%	20.1	20.0	100%	0.5%	
1,1,2-Trichloroethane	19.7	20.0	98.5%	19.7	20.0	98.5%	0.0%	
Benzene	19.2	20.0	96.0%	19.9	20.0	99.5%	3.6%	
trans-1,3-Dichloropropene	19.9	20.0	99.5%	20.0	20.0	100%	0.5%	
2-Chloroethylvinylether	22.1	20.0	110%	22.3	20.0	112%	0.9%	
Bromoform	19.9	20.0	99.5%	19.6	20.0	98.0%	1.5%	
4-Methyl-2-Pentanone (MIBK)	113	100	113%	110	100	110%	2.7%	
2-Hexanone	116	100	116%	109	100	109%	6.2%	
Tetrachloroethene	18.7	20.0	93.5%	19.1	20.0	95.5%	2.1%	
1,1,2,2-Tetrachloroethane	20.3	20.0	102%	19.6	20.0	98.0%	3.5%	
Toluene	19.3	20.0	96.5%	20.0	20.0	100%	3.6%	
Chlorobenzene	19.8	20.0	99.0%	20.2	20.0	101%	2.0%	
Ethylbenzene	20.0	20.0	100%	20.4	20.0	102%	2.0%	
Styrene	20.3	20.0	102%	20.7	20.0	104%	2.0%	
Trichlorofluoromethane	18.9	20.0	94.5%	21.0	20.0	105%	10.5%	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0	100%	20.4	20.0	102%	2.0%	
m,p-Xylene	39.4	40.0	98.5%	40.3	40.0	101%	2.3%	
o-Xylene	20.0	20.0	100%	20.5	20.0	102%	2.5%	
1,2-Dichlorobenzene	19.7	20.0	98.5%	19.9	20.0	99.5%	1.0%	
1,3-Dichlorobenzene	19.7	20.0	98.5%	19.9	20.0	99.5%	1.0%	
1,4-Dichlorobenzene	19.8	20.0	99.0%	19.9	20.0	99.5%	0.5%	
Acrolein	120	100	120%	119	100	119%	0.8%	
Methyl Iodide	20.5	20.0	102%	24.3	20.0	122%	17.0%	
Bromoethane	15.3	20.0	76.5%	20.4	20.0	102%	28.6%	

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021309

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021309

QC Report No: OL19-The Boeing Company

LIMS ID: 09-3526

Project: Thompson - Tukwila Phase II

Matrix: Water

025173.100

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	22.0	20.0	110%	21.2	20.0	106%	3.7%
1,1-Dichloropropene	19.4	20.0	97.0%	19.9	20.0	99.5%	2.5%
Dibromomethane	19.7	20.0	98.5%	19.6	20.0	98.0%	0.5%
1,1,1,2-Tetrachloroethane	19.5	20.0	97.5%	19.6	20.0	98.0%	0.5%
1,2-Dibromo-3-chloropropane	19.8	20.0	99.0%	18.4	20.0	92.0%	7.3%
1,2,3-Trichloropropane	20.0	20.0	100%	19.8	20.0	99.0%	1.0%
trans-1,4-Dichloro-2-butene	20.6	20.0	103%	20.1	20.0	100%	2.5%
1,3,5-Trimethylbenzene	19.7	20.0	98.5%	20.0	20.0	100%	1.5%
1,2,4-Trimethylbenzene	19.7	20.0	98.5%	20.1	20.0	100%	2.0%
Hexachlorobutadiene	20.6	20.0	103%	19.9	20.0	99.5%	3.5%
Ethylene Dibromide	20.3	20.0	102%	20.4	20.0	102%	0.5%
Bromochloromethane	18.3	20.0	91.5%	19.8	20.0	99.0%	7.9%
2,2-Dichloropropane	19.0	20.0	95.0%	19.3	20.0	96.5%	1.6%
1,3-Dichloropropane	20.2	20.0	101%	20.2	20.0	101%	0.0%
Isopropylbenzene	19.5	20.0	97.5%	19.9	20.0	99.5%	2.0%
n-Propylbenzene	19.7	20.0	98.5%	20.0	20.0	100%	1.5%
Bromobenzene	20.0	20.0	100%	20.0	20.0	100%	0.0%
2-Chlorotoluene	19.6	20.0	98.0%	20.0	20.0	100%	2.0%
4-Chlorotoluene	19.5	20.0	97.5%	19.7	20.0	98.5%	1.0%
tert-Butylbenzene	19.6	20.0	98.0%	19.8	20.0	99.0%	1.0%
sec-Butylbenzene	20.0	20.0	100%	20.1	20.0	100%	0.5%
4-Isopropyltoluene	20.0	20.0	100%	20.2	20.0	101%	1.0%
n-Butylbenzene	20.5	20.0	102%	20.6	20.0	103%	0.5%
1,2,4-Trichlorobenzene	20.4	20.0	102%	20.3	20.0	102%	0.5%
Naphthalene	21.5	20.0	108%	20.8	20.0	104%	3.3%
1,2,3-Trichlorobenzene	20.7	20.0	104%	20.4	20.0	102%	1.5%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	99.5%	99.8%
d8-Toluene	100%	100%
Bromofluorobenzene	100%	101%
d4-1,2-Dichlorobenzene	101%	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: LCS-021309  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021309  
LIMS ID: 09-3527  
Matrix: Water  
Data Release Authorized:   
Reported: 02/18/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst LCS: NT5/JZ  
LCSD: NT5/JZ  
Date Analyzed LCS: 02/13/09 19:07  
LCSD: 02/13/09 19:34

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	18.0	20.0	90.0%	20.8	20.0	104%	14.4%
Bromomethane	22.4	20.0	112%	25.5	20.0	128%	12.9%
Vinyl Chloride	19.3	20.0	96.5%	22.1	20.0	110%	13.5%
Chloroethane	18.9	20.0	94.5%	21.8	20.0	109%	14.3%
Methylene Chloride	20.6	20.0	103%	23.1	20.0	116%	11.4%
Acetone	101	100	101%	106	100	106%	4.8%
Carbon Disulfide	17.6	20.0	88.0%	19.9	20.0	99.5%	12.3%
1,1-Dichloroethene	18.4	20.0	92.0%	21.3	20.0	106%	14.6%
1,1-Dichloroethane	18.9	20.0	94.5%	21.4	20.0	107%	12.4%
trans-1,2-Dichloroethene	18.4	20.0	92.0%	21.2	20.0	106%	14.1%
cis-1,2-Dichloroethene	19.1	20.0	95.5%	21.4	20.0	107%	11.4%
Chloroform	17.8	20.0	89.0%	20.4	20.0	102%	13.6%
1,2-Dichloroethane	19.3	20.0	96.5%	20.8	20.0	104%	7.5%
2-Butanone	103	100	103%	110	100	110%	6.6%
1,1,1-Trichloroethane	18.5	20.0	92.5%	21.0	20.0	105%	12.7%
Carbon Tetrachloride	19.0	20.0	95.0%	20.9	20.0	104%	9.5%
Vinyl Acetate	20.1	20.0	100%	22.1	20.0	110%	9.5%
Bromodichloromethane	18.9	20.0	94.5%	20.6	20.0	103%	8.6%
1,2-Dichloropropane	19.5	20.0	97.5%	21.1	20.0	106%	7.9%
cis-1,3-Dichloropropene	19.8	20.0	99.0%	21.3	20.0	106%	7.3%
Trichloroethene	19.2	20.0	96.0%	21.1	20.0	106%	9.4%
Dibromochloromethane	19.7	20.0	98.5%	21.5	20.0	108%	8.7%
1,1,2-Trichloroethane	19.5	20.0	97.5%	20.8	20.0	104%	6.5%
Benzene	19.3	20.0	96.5%	21.2	20.0	106%	9.4%
trans-1,3-Dichloropropene	20.1	20.0	100%	21.0	20.0	105%	4.4%
2-Chloroethylvinylether	21.4	20.0	107%	23.3	20.0	116%	8.5%
Bromoform	19.2	20.0	96.0%	21.7	20.0	108%	12.2%
4-Methyl-2-Pentanone (MIBK)	109	100	109%	113	100	113%	3.6%
2-Hexanone	110	100	110%	114	100	114%	3.6%
Tetrachloroethene	18.7	20.0	93.5%	20.8	20.0	104%	10.6%
1,1,2,2-Tetrachloroethane	19.5	20.0	97.5%	22.0	20.0	110%	12.0%
Toluene	19.4	20.0	97.0%	21.4	20.0	107%	9.8%
Chlorobenzene	19.9	20.0	99.5%	21.9	20.0	110%	9.6%
Ethylbenzene	13.7	20.0	68.5%	16.2	20.0	81.0%	16.7%
Styrene	20.0	20.0	100%	22.2	20.0	111%	10.4%
Trichlorofluoromethane	18.4	20.0	92.0%	21.2	20.0	106%	14.1%
1,1,2-Trichloro-1,2,2-trifluoroethane	19.5	20.0	97.5%	21.9	20.0	110%	11.6%
m,p-Xylene	39.6	40.0	99.0%	43.8	40.0	110%	10.1%
o-Xylene	19.9	20.0	99.5%	22.0	20.0	110%	10.0%
1,2-Dichlorobenzene	19.0	20.0	95.0%	22.2	20.0	111%	15.5%
1,3-Dichlorobenzene	19.3	20.0	96.5%	22.5	20.0	112%	15.3%
1,4-Dichlorobenzene	19.4	20.0	97.0%	22.2	20.0	111%	13.5%
Acrolein	115	100	115%	123	100	123%	6.7%
Methyl Iodide	20.7	20.0	104%	23.6	20.0	118%	13.1%
Bromoethane	14.9	20.0	74.5%	16.8	20.0	84.0%	12.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: LCS-021309  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021309  
LIMS ID: 09-3527  
Matrix: Water

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	20.4	20.0	102%	21.5	20.0	108%	5.3%
1,1-Dichloropropene	19.4	20.0	97.0%	21.5	20.0	108%	10.3%
Dibromomethane	19.4	20.0	97.0%	20.8	20.0	104%	7.0%
1,1,1,2-Tetrachloroethane	19.3	20.0	96.5%	21.4	20.0	107%	10.3%
1,2-Dibromo-3-chloropropane	18.2	20.0	91.0%	20.6	20.0	103%	12.4%
1,2,3-Trichloropropane	19.7	20.0	98.5%	22.1	20.0	110%	11.5%
trans-1,4-Dichloro-2-butene	19.9	20.0	99.5%	22.5	20.0	112%	12.3%
1,3,5-Trimethylbenzene	22.7	20.0	114%	26.7	20.0	134%	16.2%
1,2,4-Trimethylbenzene	22.4	20.0	112%	26.4	20.0	132%	16.4%
Hexachlorobutadiene	19.9	20.0	99.5%	22.6	20.0	113%	12.7%
Ethylene Dibromide	20.3	20.0	102%	21.5	20.0	108%	5.7%
Bromochloromethane	18.6	20.0	93.0%	20.9	20.0	104%	11.6%
2,2-Dichloropropane	18.7	20.0	93.5%	21.2	20.0	106%	12.5%
1,3-Dichloropropane	20.0	20.0	100%	21.6	20.0	108%	7.7%
Isopropylbenzene	19.2	20.0	96.0%	22.6	20.0	113%	16.3%
n-Propylbenzene	19.5	20.0	97.5%	22.7	20.0	114%	15.2%
Bromobenzene	19.2	20.0	96.0%	22.5	20.0	112%	15.8%
2-Chlorotoluene	19.2	20.0	96.0%	22.6	20.0	113%	16.3%
4-Chlorotoluene	19.2	20.0	96.0%	22.3	20.0	112%	14.9%
tert-Butylbenzene	19.1	20.0	95.5%	22.5	20.0	112%	16.3%
sec-Butylbenzene	19.5	20.0	97.5%	23.1	20.0	116%	16.9%
4-Isopropyltoluene	19.5	20.0	97.5%	22.9	20.0	114%	16.0%
n-Butylbenzene	20.1	20.0	100%	23.5	20.0	118%	15.6%
1,2,4-Trichlorobenzene	19.8	20.0	99.0%	22.8	20.0	114%	14.1%
Naphthalene	20.6	20.0	103%	23.2	20.0	116%	11.9%
1,2,3-Trichlorobenzene	19.9	20.0	99.5%	22.7	20.0	114%	13.1%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	98.8%	101%
d8-Toluene	101%	99.3%
Bromofluorobenzene	99.8%	97.1%
d4-1,2-Dichlorobenzene	98.1%	101%

ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: PZ-8-090204

SAMPLE

Lab Sample ID: OL19A

LIMS ID: 09-3526

Matrix: Water

Data Release Authorized: *MM*

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 14:52

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	56.0%
d14-Dibenzo (a,h) anthracene	51.0%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: PZ-4-090204

SAMPLE

Lab Sample ID: OL19B

LIMS ID: 09-3527

Matrix: Water

Data Release Authorized: *MM*

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 15:15

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene	56.0%
d14-Dibenzo (a,h) anthracene	50.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA<sub>s</sub> by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: PZ-2-090204

SAMPLE

Lab Sample ID: OL19C

LIMS ID: 09-3528

Matrix: Water

Data Release Authorized: *WVW*

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 15:38

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 55.3%  
d14-Dibenzo (a,h) anthracene 81.0%



ORGANICS ANALYSIS DATA SHEET

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-206-090204

SAMPLE

Lab Sample ID: OL19D

LIMS ID: 09-3529

Matrix: Water

Data Release Authorized: *YW*

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 16:00

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenzo(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 56.0%  
d14-Dibenzo(a,h)anthracene 70.3%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-205-090204

SAMPLE

Lab Sample ID: OL19E

LIMS ID: 09-3530

Matrix: Water

Data Release Authorized: *MMW*

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 16:23

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 60.0%

d14-Dibenzo(a,h)anthracene 81.0%

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F  
LIMS ID: 09-3531  
Matrix: Water  
Data Release Authorized: *MMW*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
Event: 025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/11/09 16:45  
Instrument/Analyst: NT1/PK

Sample Amount: 500 mL  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 57.3%  
d14-Dibenzo (a,h) anthracene 60.7%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-2055-090204

SAMPLE

Lab Sample ID: OL19G

LIMS ID: 09-3532

Matrix: Water

Data Release Authorized: *WW*

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 17:08

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 58.3%  
d14-Dibenzo (a,h) anthracene 76.0%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-020909

METHOD BLANK

Lab Sample ID: MB-020909

LIMS ID: 09-3526

Matrix: Water

Data Release Authorized: *VTS*

Reported: 02/19/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: NA

Date Received: NA

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 12:14

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in  $\mu\text{g/L}$  (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 63.3%  
d14-Dibenzo (a,h) anthracene 80.0%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-020909	63.3%	80.0%	0
LCS-020909	63.7%	81.3%	0
LCS-020909	58.7%	79.7%	0
PZ-8-090204	56.0%	51.0%	0
PZ-4-090204	56.0%	50.3%	0
PZ-2-090204	55.3%	81.0%	0
I-206-090204	56.0%	70.3%	0
I-205-090204	60.0%	81.0%	0
I-203-090204	57.3%	60.7%	0
I-2055-090204	58.3%	76.0%	0

**LCS/MB LIMITS      QC LIMITS**

(MNP) = d10-2-Methylnaphthalene      (49-113)      (44-112)  
(DBA) = d14-Dibenzo(a,h)anthracene      (49-132)      (10-138)

Prep Method: SW3520C  
Log Number Range: 09-3526 to 09-3532

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-020909

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020909

LIMS ID: 09-3526

Matrix: Water

Data Release Authorized: *VTS*

Reported: 02/19/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

Event: 025173.100

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 02/09/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/11/09 12:37

Final Extract Volume LCS: 0.50 mL

LCSD: 02/11/09 12:59

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/PK

Dilution Factor LCS: 1.00

LCSD: NT1/PK

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzo(a)anthracene	2.27	3.00	75.7%	2.38	3.00	79.3%	4.7%
Chrysene	2.43	3.00	81.0%	2.45	3.00	81.7%	0.8%
Benzo(b)fluoranthene	2.53	3.00	84.3%	2.41	3.00	80.3%	4.9%
Benzo(k)fluoranthene	2.94	3.00	98.0%	3.04	3.00	101%	3.3%
Benzo(a)pyrene	2.57	3.00	85.7%	2.49	3.00	83.0%	3.2%
Indeno(1,2,3-cd)pyrene	2.41	3.00	80.3%	2.47	3.00	82.3%	2.5%
Dibenz(a,h)anthracene	2.52	3.00	84.0%	2.50	3.00	83.3%	0.8%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	63.7%	58.7%
d14-Dibenzo(a,h)anthracene	81.3%	79.7%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: PZ-8-090204  
SAMPLE

Lab Sample ID: OL19A

LIMS ID: 09-3526

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/10/09 12:05

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	89.2%
Tetrachlorometaxylene	67.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: PZ-4-090204

SAMPLE

Lab Sample ID: OL19B

LIMS ID: 09-3527

Matrix: Water

Data Release Authorized: 

Reported: 02/12/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/10/09 12:22

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	86.0%
Tetrachlorometaxylene	58.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: PZ-2-090204  
SAMPLE

Lab Sample ID: OL19C  
LIMS ID: 09-3528  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 12:40  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	83.2%
Tetrachlorometaxylene	62.2%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: I-206-090204  
SAMPLE

Lab Sample ID: OL19D  
LIMS ID: 09-3529  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 12:57  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	78.0%
Tetrachlorometaxylene	60.2%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: I-205-090204  
SAMPLE

Lab Sample ID: OL19E  
LIMS ID: 09-3530  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 13:14  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	83.0%
Tetrachlorometaxylene	57.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F  
LIMS ID: 09-3531  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 13:31  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	60.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: I-2055-090204  
SAMPLE

Lab Sample ID: OL19G  
LIMS ID: 09-3532  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 13:48  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	85.8%
Tetrachlorometaxylene	60.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: MB-020909  
METHOD BLANK

Lab Sample ID: MB-020909  
LIMS ID: 09-3526  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 10:39  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.8%
Tetrachlorometaxylene	65.8%

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-020909	88.8%	47-101	65.8%	61-104	0
LCS-020909	81.8%	47-101	57.2%*	61-104	1
LCSD-020909	83.8%	47-101	59.5%*	61-104	1
PZ-8-090204	89.2%	42-120	67.0%	55-102	0
PZ-4-090204	86.0%	42-120	58.0%	55-102	0
PZ-2-090204	83.2%	42-120	62.2%	55-102	0
I-206-090204	78.0%	42-120	60.2%	55-102	0
I-205-090204	83.0%	42-120	57.5%	55-102	0
I-203-090204	88.5%	42-120	60.0%	55-102	0
I-2055-090204	85.8%	42-120	60.8%	55-102	0

Prep Method: SW3510C  
Log Number Range: 09-3526 to 09-3532

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-020909  
LCS/LCSD

Lab Sample ID: LCS-020909  
LIMS ID: 09-3526  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: NA  
Date Received: NA

Date Extracted LCS/LCSD: 02/09/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/10/09 10:57  
LCSD: 02/10/09 11:14

Final Extract Volume LCS: 5.0 mL  
LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: No  
Sulfur Cleanup: No

Silica Gel: No  
Acid Cleanup: No

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	LCSD	RPD
Aroclor 1016	3.98	5.00	79.6%	4.25	5.00	85.0%	6.6%		
Aroclor 1260	4.50	5.00	90.0%	4.52	5.00	90.4%	0.4%		

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	81.8%	83.8%
Tetrachlorometaxylene	57.2%	59.5%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: PZ-8-090204

SAMPLE

Lab Sample ID: OL19A

LIMS ID: 09-3526

Matrix: Water

Data Release Authorized 

Reported: 02/16/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	0.5	1.0	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: PZ-4-090204

SAMPLE

Lab Sample ID: OL19B

LIMS ID: 09-3527

Matrix: Water

Data Release Authorized: 

Reported: 02/16/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	0.2	29.2	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: PZ-2-090204  
SAMPLE

Lab Sample ID: OL19C  
LIMS ID: 09-3528  
Matrix: Water  
Data Release Authorized:   
Reported: 02/16/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	0.2	11.3	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: I-206-090204

SAMPLE

Lab Sample ID: OL19D

LIMS ID: 09-3529

Matrix: Water

Data Release Authorized: 

Reported: 02/16/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: 02/04/09

Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	2	575	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: I-205-090204  
SAMPLE

Lab Sample ID: OL19E  
LIMS ID: 09-3530  
Matrix: Water  
Data Release Authorized:   
Reported: 02/16/09

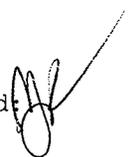
QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	0.2	28.1	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: I-203-090204  
SAMPLE

Lab Sample ID: OL19F  
LIMS ID: 09-3531  
Matrix: Water  
Data Release Authorized:   
Reported: 02/16/09

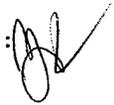
QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/12/09	7440-38-2	Arsenic	1	122	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: I-2055-090204  
SAMPLE

Lab Sample ID: OL19G  
LIMS ID: 09-3532  
Matrix: Water  
Data Release Authorized:   
Reported: 02/16/09

QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	0.2	27.4	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OL19MB

LIMS ID: 09-3526

Matrix: Water

Data Release Authorized 

Reported: 02/16/09

QC Report No: OL19-The Boeing Company

Project: Thompson - Tukwila Phase II

025173.100

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	0.2	0.6	
6010B	02/10/09	6010B	02/10/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/10/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/10/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/10/09	7440-66-6	Zinc	10	10	U

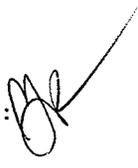
U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OL19LCS  
LIMS ID: 09-3526  
Matrix: Water  
Data Release Authorized:  
Reported: 02/16/09



QC Report No: OL19-The Boeing Company  
Project: Thompson - Tukwila Phase II  
025173.100  
Date Sampled: NA  
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	29.1	25.0	116%	
Cadmium	6010B	511	500	102%	
Chromium	6010B	473	500	94.6%	
Copper	6010B	491	500	98.2%	
Lead	200.8	27	25	108%	
Mercury	7470A	1.9	2.0	95.0%	
Zinc	6010B	480	500	96.0%	

Reported in µg/L

N-Control limit not met  
Control Limits: 80-120%



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

February 20, 2009

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Isaacson – Phase II, 025173.090**  
**ARI Job: OL24**

Dear Kathryn:

Enclosed, please find e-mail documentation, the original and revised copy of the Chain-of-Custody (COC) record, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted three water samples and trip blank in good condition on February 4, 2009. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM PAHs, PCBs, NWT PH-HCID, and Dissolved Metals, as requested on the COC.

The LCS and LCSD percent recoveries of Acrolein and the LCS percent recoveries of 1,2,3-Trichloropropane, trans-1,4-Dichloro-2-butene, Bromobenzene, and tert-Butylbenzene were outside the control limits high for **LCS-021109** for the VOCs analysis. All samples were undetected for these compounds. No further corrective action was required.

Several LCS and LCSD percent recoveries fell outside the control limits low for **LCS-020609** for the SVOCs analysis. All samples and associated QC were re-extracted and re-analyzed outside the method recommended holding times. All LCS and LCSD percent recoveries were within control limits for **LCS-021209**. Both sets of data have been submitted in this report for your review. No further corrective action was required.

The surrogate percent recoveries of Tetrachlorometaxylene fell outside the control limits low for **LCS-020909** and **LCSD-020909** for the PCBs. The LCS and LCSD percent recoveries were within control limits and all other surrogate percent recoveries were within control limits. No further corrective action was required.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

  
Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

KB/co





# Cooler Receipt Form

ARI Client: Landaw / Boeing Project Name: \_\_\_\_\_  
 COC No: \_\_\_\_\_ Delivered by: Hanel  
 Assigned ARI Job No: 024 Tracking No: \_\_\_\_\_

### Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? ..... YES  NO
- Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) ..... 5.2, 7.6, 4.6 °C

Cooler Accepted by: JH Date: 2/4/09 Time: 1653

**Complete custody forms and attach all shipping documents**

### Log-In Phase:

- Was a temperature blank included in the cooler? ..... YES  NO
- What kind of packing material was used? ..... ice
- Was sufficient ice used (if appropriate)? ..... YES  NO
- Were all bottles sealed in individual plastic bags? ..... YES  NO
- Did all bottle arrive in good condition (unbroken)? ..... YES  NO
- Were all bottle labels complete and legible? ..... YES  NO
- Did all bottle labels and tags agree with custody papers? ..... YES  NO
- Were all bottles used correct for the requested analyses? ..... YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) ..... YES  NO
- Were all VOC vials free of air bubbles? ..... NA  NO
- Was sufficient amount of sample sent in each bottle? ..... YES  NO

Samples Logged by: JH Date: 2/5/09 Time: 1030

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

Explain discrepancies or negative responses:

Only 2 trip blanks included

Sent revised COC.

By: XHS

Date: 2/5/09



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- 

Date 2/4/09  
Page 1 of 1

# Chain-of-Custody Record

Project Name Boeing/Boacson Project No. 02573.090

Project Location/Event Tukwila/Phase II

Sampler's Name Elizabeth Poole/Mark Bunnick

Project Contact Kathryn Hawley

Send Results To K Hawley, K Lewis, N Ahnerson, E Hendrickson

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters							Observations/Comments
					TPH-HCLP	D's Metals	PCBs	VOCs	SVOCs	CPAH (6/10/04)	Turnaround Time	
PZ-6-090204	2/4/09	0903	W	15	X	X	X	X	X	X		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____  <input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal water samples field filtered  Other Metals: <u>As, Cd, Cr, Cu, Pb, Hg, Zn</u>
PZ-3-090204	↓	1003	↓	↓	X	X	X	X	X	X		
I-700-090204	↓	1128	↓	↓	X	X	X	X	X	X		
TB				2 #100 2/5/09				X				

Special Shipment/Handling or Storage Requirements		Method of Shipment	
<b>Relinquished by</b> <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>EA</u> Company Date <u>2/4/09</u> Time <u>1245</u>	<b>Received by</b> <u>James Hayes</u> Signature <u>James Hayes</u> Printed Name <u>ACI</u> Company Date <u>2/4/09</u> Time <u>1100</u>	<b>Relinquished by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____	<b>Received by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____

**Eric Branson**

---

**From:** "Kelly Bottem" <kellyb@arilabs.com>  
**To:** "Kathryn Hartley" <khartley@landauinc.com>; "Eric Branson" <eric@arilabs.com>  
**Sent:** Monday, February 09, 2009 2:21 PM  
**Subject:** Re: Ol24 sample aka

Got it. Eric please change ASAP.

K

Kathryn Hartley wrote:

> Kelly,

>

>

>

> For data package OL24, please make the following changes:

>

> - Change P2-6-090204 to PZ-6-090204

>

> - Change P2-3-090204 to PZ-3-090204

>

> - Add Phase II to the project name

>

>

>

> Please confirm that you received this message and let me know if  
you

> have any questions.

>

>

>

> Thanks,

>

>

>

> Kathryn F. Hartley

>

> Project Scientist

>

> Landau Associates

>

> 130 2nd Avenue South

>

> Edmonds, WA 98020

>

> (425) 329-0268

>

>

>

> -----Original Message-----

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-6-090204

Page 1 of 2

SAMPLE

Lab Sample ID: OL24A

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/10/09 20:04

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	3.9	
75-15-0	Carbon Disulfide	0.2	0.2	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 20:04

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	117%
d8-Toluene	100%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-3-090204

Page 1 of 2

SAMPLE

Lab Sample ID: OL24B

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3552

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/10/09 20:29

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	<b>Acetone</b>	<b>2.5</b>	<b>7.1</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Date Analyzed: 02/10/09 20:29

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	98.7%
Bromofluorobenzene	100%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-200-090204

Page 1 of 2

**SAMPLE**

Lab Sample ID: OL24C

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3553

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/10/09 20:54

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>2.5</b>	<b>11</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-200-090204

Page 2 of 2

SAMPLE

Lab Sample ID: OL24C

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3553

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Date Analyzed: 02/10/09 20:54

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	100%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	104%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: TRIP BLANK

Page 1 of 2

SAMPLE

Lab Sample ID: OL24D

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3554

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/11/09 13:31

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: TRIP BLANK  
SAMPLE

Lab Sample ID: OL24D  
LIMS ID: 09-3554  
Matrix: Water  
Date Analyzed: 02/11/09 13:31

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	111%
d8-Toluene	99.1%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	101%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
 Project: Boeing Isaacson Phase II  
 025173.090

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-021009	Method Blank	10	98.3%	99.5%	97.8%	99.9%	0
LCS-021009	Lab Control	10	99.8%	98.7%	99.6%	102%	0
LCSD-021009	Lab Control Dup	10	97.5%	99.5%	98.3%	100%	0
OL24A	PZ-6-090204	10	117%	100%	101%	101%	0
OL24B	PZ-3-090204	10	115%	98.7%	100%	102%	0
OL24C	I-200-090204	10	115%	100%	102%	104%	0
MB-021109	Method Blank	10	111%	102%	101%	102%	0
LCS-021109	Lab Control	10	113%	96.0%	93.9%	102%	0
LCSD-021109	Lab Control Dup	10	111%	101%	102%	102%	0
OL24D	TRIP BLANK	10	111%	99.1%	102%	101%	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane	70-130	70-130
(TOL) = d8-Toluene	70-130	70-130
(BFB) = Bromofluorobenzene	70-130	70-130
(DCB) = d4-1,2-Dichlorobenzene	70-130	70-130

Prep Method: SW5030B  
 Log Number Range: 09-3551 to 09-3554

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021009

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021009

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: NA

Reported: 02/12/09

Date Received: NA

Instrument/Analyst LCS: NT7/PKC

Sample Amount LCS: 10.0 mL

LCSD: NT7/PKC

LCSD: 10.0 mL

Date Analyzed LCS: 02/10/09 12:55

Purge Volume LCS: 10.0 mL

LCSD: 02/10/09 13:20

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	9.0	10.0	90.0%	9.3	10.0	93.0%	3.3%
Bromomethane	10.0	10.0	100%	10.8	10.0	108%	7.7%
Vinyl Chloride	9.7	10.0	97.0%	10.0	10.0	100%	3.0%
Chloroethane	10.7	10.0	107%	11.0	10.0	110%	2.8%
Methylene Chloride	9.8	10.0	98.0%	10.0	10.0	100%	2.0%
Acetone	55.6	50.0	111%	56.0	50.0	112%	0.7%
Carbon Disulfide	9.7	10.0	97.0%	10.0	10.0	100%	3.0%
1,1-Dichloroethene	9.4	10.0	94.0%	10.0	10.0	100%	6.2%
1,1-Dichloroethane	9.6	10.0	96.0%	9.6	10.0	96.0%	0.0%
trans-1,2-Dichloroethene	9.7	10.0	97.0%	9.7	10.0	97.0%	0.0%
cis-1,2-Dichloroethene	9.8	10.0	98.0%	10.1	10.0	101%	3.0%
Chloroform	9.7	10.0	97.0%	9.9	10.0	99.0%	2.0%
1,2-Dichloroethane	9.8	10.0	98.0%	9.8	10.0	98.0%	0.0%
2-Butanone	52.4	50.0	105%	51.1	50.0	102%	2.5%
1,1,1-Trichloroethane	9.6	10.0	96.0%	9.8	10.0	98.0%	2.1%
Carbon Tetrachloride	9.7	10.0	97.0%	10.3	10.0	103%	6.0%
Vinyl Acetate	8.8	10.0	88.0%	8.8	10.0	88.0%	0.0%
Bromodichloromethane	9.9	10.0	99.0%	10.3	10.0	103%	4.0%
1,2-Dichloropropane	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
cis-1,3-Dichloropropene	9.8	10.0	98.0%	10.2	10.0	102%	4.0%
Trichloroethene	9.5	10.0	95.0%	9.9	10.0	99.0%	4.1%
Dibromochloromethane	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
1,1,2-Trichloroethane	9.4	10.0	94.0%	10.0	10.0	100%	6.2%
Benzene	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
trans-1,3-Dichloropropene	10.0	10.0	100%	10.3	10.0	103%	3.0%
2-Chloroethylvinylether	9.9	10.0	99.0%	10.1	10.0	101%	2.0%
Bromoform	10.2	10.0	102%	10.4	10.0	104%	1.9%
4-Methyl-2-Pentanone (MIBK)	52.2	50.0	104%	50.5	50.0	101%	3.3%
2-Hexanone	50.6	50.0	101%	48.9	50.0	97.8%	3.4%
Tetrachloroethene	9.3	10.0	93.0%	10.0	10.0	100%	7.3%
1,1,2,2-Tetrachloroethane	8.7	10.0	87.0%	9.0	10.0	90.0%	3.4%
Toluene	8.9	10.0	89.0%	9.6	10.0	96.0%	7.6%
Chlorobenzene	9.4	10.0	94.0%	9.9	10.0	99.0%	5.2%
Ethylbenzene	9.3	10.0	93.0%	10.1	10.0	101%	8.2%
Styrene	9.7	10.0	97.0%	9.8	10.0	98.0%	1.0%
Trichlorofluoromethane	9.8	10.0	98.0%	9.9	10.0	99.0%	1.0%
1,1,2-Trichloro-1,2,2-trifluoroetha	10.1	10.0	101%	10.4	10.0	104%	2.9%
m,p-Xylene	18.4	20.0	92.0%	19.4	20.0	97.0%	5.3%
o-Xylene	9.1	10.0	91.0%	9.7	10.0	97.0%	6.4%
1,2-Dichlorobenzene	9.3	10.0	93.0%	9.8	10.0	98.0%	5.2%
1,3-Dichlorobenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
1,4-Dichlorobenzene	9.4	10.0	94.0%	9.9	10.0	99.0%	5.2%
Acrolein	61.8	50.0	124%	57.1	50.0	114%	7.9%
Methyl Iodide	11.5	10.0	115%	12.3	10.0	123%	6.7%
Bromoethane	9.5	10.0	95.0%	9.6	10.0	96.0%	1.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 2 of 2

Sample ID: LCS-021009

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021009

LIMS ID: 09-3551

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	10.9	10.0	109%	10.7	10.0	107%	1.9%
1,1-Dichloropropene	8.9	10.0	89.0%	9.5	10.0	95.0%	6.5%
Dibromomethane	9.8	10.0	98.0%	10.4	10.0	104%	5.9%
1,1,1,2-Tetrachloroethane	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
1,2-Dibromo-3-chloropropane	8.7	10.0	87.0%	9.3	10.0	93.0%	6.7%
1,2,3-Trichloropropane	9.9	10.0	99.0%	9.8	10.0	98.0%	1.0%
trans-1,4-Dichloro-2-butene	9.1	10.0	91.0%	9.6	10.0	96.0%	5.3%
1,3,5-Trimethylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
1,2,4-Trimethylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
Hexachlorobutadiene	9.3	10.0	93.0%	10.0	10.0	100%	7.3%
Ethylene Dibromide	9.8	10.0	98.0%	10.1	10.0	101%	3.0%
Bromochloromethane	10.0	10.0	100%	10.3	10.0	103%	3.0%
2,2-Dichloropropane	10.0	10.0	100%	10.0	10.0	100%	0.0%
1,3-Dichloropropane	9.7	10.0	97.0%	9.7	10.0	97.0%	0.0%
Isopropylbenzene	9.5	10.0	95.0%	10.2	10.0	102%	7.1%
n-Propylbenzene	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
Bromobenzene	9.6	10.0	96.0%	9.9	10.0	99.0%	3.1%
2-Chlorotoluene	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
4-Chlorotoluene	9.4	10.0	94.0%	9.9	10.0	99.0%	5.2%
tert-Butylbenzene	9.3	10.0	93.0%	9.8	10.0	98.0%	5.2%
sec-Butylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
4-Isopropyltoluene	9.5	10.0	95.0%	10.1	10.0	101%	6.1%
n-Butylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
1,2,4-Trichlorobenzene	10.3	10.0	103%	10.2	10.0	102%	1.0%
Naphthalene	10.5	10.0	105%	10.2	10.0	102%	2.9%
1,2,3-Trichlorobenzene	10.3	10.0	103%	10.2	10.0	102%	1.0%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	99.8%	97.5%
d8-Toluene	98.7%	99.5%
Bromofluorobenzene	99.6%	98.3%
d4-1,2-Dichlorobenzene	102%	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021109

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021109

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3554

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: NA

Reported: 02/12/09

Date Received: NA

Instrument/Analyst LCS: NT7/PKC

Sample Amount LCS: 10.0 mL

LCSD: NT7/PKC

LCSD: 10.0 mL

Date Analyzed LCS: 02/11/09 11:27

Purge Volume LCS: 10.0 mL

LCSD: 02/11/09 11:51

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	10.8	10.0	108%	10.4	10.0	104%	3.8%
Bromomethane	9.9	10.0	99.0%	9.3	10.0	93.0%	6.2%
Vinyl Chloride	10.1	10.0	101%	10.1	10.0	101%	0.0%
Chloroethane	11.9	10.0	119%	11.3	10.0	113%	5.2%
Methylene Chloride	10.1	10.0	101%	9.7	10.0	97.0%	4.0%
Acetone	54.5	50.0	109%	56.8	50.0	114%	4.1%
Carbon Disulfide	9.8	10.0	98.0%	9.2	10.0	92.0%	6.3%
1,1-Dichloroethene	9.3	10.0	93.0%	9.2	10.0	92.0%	1.1%
1,1-Dichloroethane	10.5	10.0	105%	9.7	10.0	97.0%	7.9%
trans-1,2-Dichloroethene	9.3	10.0	93.0%	9.3	10.0	93.0%	0.0%
cis-1,2-Dichloroethene	10.0	10.0	100%	9.4	10.0	94.0%	6.2%
Chloroform	10.4	10.0	104%	10.0	10.0	100%	3.9%
1,2-Dichloroethane	11.0	10.0	110%	10.7	10.0	107%	2.8%
2-Butanone	51.0	50.0	102%	50.5	50.0	101%	1.0%
1,1,1-Trichloroethane	10.8	10.0	108%	10.2	10.0	102%	5.7%
Carbon Tetrachloride	11.2	10.0	112%	10.6	10.0	106%	5.5%
Vinyl Acetate	9.4	10.0	94.0%	9.4	10.0	94.0%	0.0%
Bromodichloromethane	11.0	10.0	110%	10.6	10.0	106%	3.7%
1,2-Dichloropropane	10.0	10.0	100%	9.9	10.0	99.0%	1.0%
cis-1,3-Dichloropropene	10.4	10.0	104%	10.0	10.0	100%	3.9%
Trichloroethene	10.1	10.0	101%	9.4	10.0	94.0%	7.2%
Dibromochloromethane	11.2	10.0	112%	9.6	10.0	96.0%	15.4%
1,1,2-Trichloroethane	9.6	10.0	96.0%	9.5	10.0	95.0%	1.0%
Benzene	9.7	10.0	97.0%	9.4	10.0	94.0%	3.1%
trans-1,3-Dichloropropene	10.6	10.0	106%	10.2	10.0	102%	3.8%
2-Chloroethylvinylether	10.0	10.0	100%	10.2	10.0	102%	2.0%
Bromoform	13.2	10.0	132%	10.1	10.0	101%	26.6%
4-Methyl-2-Pentanone (MIBK)	53.4	50.0	107%	54.4	50.0	109%	1.9%
2-Hexanone	55.5	50.0	111%	51.1	50.0	102%	8.3%
Tetrachloroethene	10.5	10.0	105%	8.9	10.0	89.0%	16.5%
1,1,2,2-Tetrachloroethane	11.4	10.0	114%	8.6	10.0	86.0%	28.0%
Toluene	9.3	10.0	93.0%	8.9	10.0	89.0%	4.4%
Chlorobenzene	10.6	10.0	106%	9.1	10.0	91.0%	15.2%
Ethylbenzene	10.7	10.0	107%	9.4	10.0	94.0%	12.9%
Styrene	11.2	10.0	112%	9.5	10.0	95.0%	16.4%
Trichlorofluoromethane	10.8	10.0	108%	10.4	10.0	104%	3.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	10.7	10.0	107%	9.9	10.0	99.0%	7.8%
m,p-Xylene	21.1	20.0	106%	17.7	20.0	88.5%	17.5%
o-Xylene	10.6	10.0	106%	8.9	10.0	89.0%	17.4%
1,2-Dichlorobenzene	12.0	10.0	120%	9.0	10.0	90.0%	28.6%
1,3-Dichlorobenzene	12.0	10.0	120%	9.0	10.0	90.0%	28.6%
1,4-Dichlorobenzene	11.9	10.0	119%	8.8	10.0	88.0%	30.0%
Acrolein	71.5	50.0	143%	72.3	50.0	145%	1.1%
Methyl Iodide	11.5	10.0	115%	10.3	10.0	103%	11.0%
Bromoethane	9.4	10.0	94.0%	8.6	10.0	86.0%	8.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021109

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021109

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3554

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	10.5	10.0	105%	11.0	10.0	110%	4.7%
1,1-Dichloropropene	9.6	10.0	96.0%	8.8	10.0	88.0%	8.7%
Dibromomethane	10.4	10.0	104%	10.6	10.0	106%	1.9%
1,1,1,2-Tetrachloroethane	11.0	10.0	110%	9.3	10.0	93.0%	16.7%
1,2-Dibromo-3-chloropropane	12.0	10.0	120%	9.4	10.0	94.0%	24.3%
1,2,3-Trichloropropane	13.2	10.0	132%	9.4	10.0	94.0%	33.6%
trans-1,4-Dichloro-2-butene	13.5	10.0	135%	9.6	10.0	96.0%	33.8%
1,3,5-Trimethylbenzene	11.8	10.0	118%	9.0	10.0	90.0%	26.9%
1,2,4-Trimethylbenzene	11.8	10.0	118%	8.9	10.0	89.0%	28.0%
Hexachlorobutadiene	12.4	10.0	124%	9.0	10.0	90.0%	31.8%
Ethylene Dibromide	10.0	10.0	100%	9.9	10.0	99.0%	1.0%
Bromochloromethane	10.1	10.0	101%	9.8	10.0	98.0%	3.0%
2,2-Dichloropropane	11.0	10.0	110%	10.2	10.0	102%	7.5%
1,3-Dichloropropane	10.8	10.0	108%	9.5	10.0	95.0%	12.8%
Isopropylbenzene	12.3	10.0	123%	9.2	10.0	92.0%	28.8%
n-Propylbenzene	12.4	10.0	124%	9.1	10.0	91.0%	30.7%
Bromobenzene	12.1	10.0	121%	8.7	10.0	87.0%	32.7%
2-Chlorotoluene	12.5	10.0	125%	9.1	10.0	91.0%	31.5%
4-Chlorotoluene	12.5	10.0	125%	9.0	10.0	90.0%	32.6%
tert-Butylbenzene	12.1	10.0	121%	8.8	10.0	88.0%	31.6%
sec-Butylbenzene	12.0	10.0	120%	8.9	10.0	89.0%	29.7%
4-Isopropyltoluene	12.1	10.0	121%	8.9	10.0	89.0%	30.5%
n-Butylbenzene	11.7	10.0	117%	8.8	10.0	88.0%	28.3%
1,2,4-Trichlorobenzene	11.5	10.0	115%	9.1	10.0	91.0%	23.3%
Naphthalene	11.5	10.0	115%	9.3	10.0	93.0%	21.2%
1,2,3-Trichlorobenzene	11.7	10.0	117%	9.3	10.0	93.0%	22.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	113%	111%
d8-Toluene	96.0%	101%
Bromofluorobenzene	93.9%	102%
d4-1,2-Dichlorobenzene	102%	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021009

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-021009

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 02/12/09

Date Received: NA

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/10/09 14:18

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021009

Page 2 of 2

METHOD BLANK

Lab Sample ID: MB-021009

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Date Analyzed: 02/10/09 14:18

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.3%
d8-Toluene	99.5%
Bromofluorobenzene	97.8%
d4-1,2-Dichlorobenzene	99.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: MB-021109  
METHOD BLANK

Lab Sample ID: MB-021109  
LIMS ID: 09-3554  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT7/PKC  
Date Analyzed: 02/11/09 12:47

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: MB-021109  
METHOD BLANK

Lab Sample ID: MB-021109  
LIMS ID: 09-3554  
Matrix: Water  
Date Analyzed: 02/11/09 12:47

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	111%
d8-Toluene	102%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	102%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Date Extracted: 02/06/09

Sample Amount: 500 mL

Date Analyzed: 02/10/09 22:04

Final Extract Volume: 0.50 mL

Instrument/Analyst: NT4/LJR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 22:04

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.4%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	87.6%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	28.0%	2-Fluorophenol	42.4%
2,4,6-Tribromophenol	89.1%	d4-2-Chlorophenol	67.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: P2-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-4573  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 20:17  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: P2-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-4573  
Matrix: Water  
Date Analyzed: 02/14/09 20:17

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
<b>117-81-7</b>	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>28</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	76.4%
d14-p-Terphenyl	85.6%	d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	69.6%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	94.1%	d4-2-Chlorophenol	71.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 22:38  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

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Semivolatiles by SW8270D GC/MS  
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Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Date Analyzed: 02/10/09 22:38

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	64.0%
d14-p-Terphenyl	89.2%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	27.5%	2-Fluorophenol	42.4%
2,4,6-Tribromophenol	85.1%	d4-2-Chlorophenol	68.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: P2-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-4574  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 20:52  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: P2-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-4574  
Matrix: Water  
Date Analyzed: 02/14/09 20:52

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	71.6%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	66.1%	2-Fluorophenol	65.1%
2,4,6-Tribromophenol	92.0%	d4-2-Chlorophenol	66.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C  
LIMS ID: 09-3553  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/11/09 17:27  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U



Lab Sample ID: OL24C  
 LIMS ID: 09-3553  
 Matrix: Water  
 Date Analyzed: 02/11/09 17:27

QC Report No: OL24-Landau Associates, Inc.  
 Project: Boeing Isaacson Phase II  
 025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	90.8%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	27.7%	2-Fluorophenol	43.5%
2,4,6-Tribromophenol	88.0%	d4-2-Chlorophenol	68.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C

QC Report No: OL24-The Boeing Company

LIMS ID: 09-4575

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *VTS*

Date Sampled: 02/04/09

Reported: 02/17/09

Date Received: 02/04/09

Date Extracted: 02/12/09

Sample Amount: 500 mL

Date Analyzed: 02/14/09 21:27

Final Extract Volume: 0.50 mL

Instrument/Analyst: NT4/LJR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C  
LIMS ID: 09-4575  
Matrix: Water  
Date Analyzed: 02/14/09 21:27

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.4%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	76.0%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	60.3%	2-Fluorophenol	63.7%
2,4,6-Tribromophenol	75.5%	d4-2-Chlorophenol	66.4%

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-020609	62.8%	58.4%	83.6%	64.4%	30.7%	45.6%	70.9%	69.1%	0	
LCS-020609	67.2%	67.6%	78.4%	69.2%	33.3%	48.5%	80.3%	75.2%	0	
LCSD-020609	63.2%	69.6%	84.4%	65.2%	32.0%	45.6%	85.9%	69.9%	0	
PZ-6-090204	64.4%	64.4%	87.6%	62.4%	28.0%	42.4%	89.1%	67.5%	0	
PZ-3-090204	64.8%	64.0%	89.2%	65.6%	27.5%	42.4%	85.1%	68.5%	0	
I-200-090204	64.8%	65.2%	90.8%	66.4%	27.7%	43.5%	88.0%	68.5%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(50-104)	(45-98)
(FBP) = 2-Fluorobiphenyl	(49-98)	(53-89)
(TPH) = d14-p-Terphenyl	(48-120)	(46-119)
(DCB) = d4-1,2-Dichlorobenzene	(40-92)	(41-87)
(PHL) = d5-Phenol	(20-62)	(10-66)
(2FP) = 2-Fluorophenol	(17-98)	(23-74)
(TBP) = 2,4,6-Tribromophenol	(56-110)	(51-105)
(2CP) = d4-2-Chlorophenol	(51-97)	(42-93)

Prep Method: SW3510C  
Log Number Range: 09-3551 to 09-3553

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-021209	74.8%	70.4%	82.4%	61.2%	72.0%	70.9%	74.9%	74.1%	0	
LCS-021209	76.0%	71.2%	90.0%	65.6%	79.2%	72.5%	93.1%	75.5%	0	
LCS-D-021209	70.0%	75.2%	82.0%	59.2%	67.7%	63.7%	90.9%	65.6%	0	
P2-6-090204	74.8%	76.4%	85.6%	64.8%	69.6%	67.7%	94.1%	71.5%	0	
P2-3-090204	71.6%	72.4%	79.2%	62.4%	66.1%	65.1%	92.0%	66.9%	0	
I-200-090204	70.4%	68.0%	76.0%	64.0%	60.3%	63.7%	75.5%	66.4%	0	

**LCS/MB LIMITS**

**QC LIMITS**

(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C  
Log Number Range: 09-4573 to 09-4575

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/06/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/10/09 13:24  
LCSD: 02/10/09 13:59

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	7.5	25.0	30.0%	7.2	25.0	25.0	28.8%	3.0%
Bis-(2-Chloroethyl) Ether	18.7	25.0	74.8%	17.9	25.0	25.0	71.6%	4.4%
2-Chlorophenol	18.1	25.0	72.4%	16.9	25.0	25.0	67.6%	6.9%
1,3-Dichlorobenzene	16.7	25.0	66.8%	16.1	25.0	25.0	64.4%	3.7%
1,4-Dichlorobenzene	16.6	25.0	66.4%	16.2	25.0	25.0	64.8%	2.4%
Benzyl Alcohol	18.2	50.0	36.4%	18.3	50.0	50.0	36.6%	0.5%
1,2-Dichlorobenzene	17.6	25.0	70.4%	17.0	25.0	25.0	68.0%	3.5%
2-Methylphenol	16.1	25.0	64.4%	15.6	25.0	25.0	62.4%	3.2%
2,2'-Oxybis(1-Chloropropane)	14.3	25.0	57.2%	13.8	25.0	25.0	55.2%	3.6%
4-Methylphenol	30.9	50.0	61.8%	30.7	50.0	50.0	61.4%	0.6%
N-Nitroso-Di-N-Propylamine	16.5	25.0	66.0%	16.4	25.0	25.0	65.6%	0.6%
Hexachloroethane	16.6	25.0	66.4%	16.2	25.0	25.0	64.8%	2.4%
Nitrobenzene	16.2	25.0	64.8%	15.7	25.0	25.0	62.8%	3.1%
Isophorone	17.8	25.0	71.2%	18.1	25.0	25.0	72.4%	1.7%
2-Nitrophenol	18.4	25.0	73.6%	17.8	25.0	25.0	71.2%	3.3%
2,4-Dimethylphenol	12.9	25.0	51.6%	12.5	25.0	25.0	50.0%	3.1%
Benzoic Acid	28.2	75.0	37.6%	29.6	75.0	75.0	39.5%	4.8%
bis(2-Chloroethoxy) Methane	17.7	25.0	70.8%	17.6	25.0	25.0	70.4%	0.6%
2,4-Dichlorophenol	18.4	25.0	73.6%	18.0	25.0	25.0	72.0%	2.2%
1,2,4-Trichlorobenzene	16.4	25.0	65.6%	16.0	25.0	25.0	64.0%	2.5%
Naphthalene	17.8	25.0	71.2%	17.3	25.0	25.0	69.2%	2.8%
4-Chloroaniline	< 5.0	60.0	NA	< 5.0	60.0	60.0	NA	NA
Hexachlorobutadiene	16.1	25.0	64.4%	15.5	25.0	25.0	62.0%	3.8%
4-Chloro-3-methylphenol	18.5	25.0	74.0%	19.1	25.0	25.0	76.4%	3.2%
2-Methylnaphthalene	18.3	25.0	73.2%	18.1	25.0	25.0	72.4%	1.1%
Hexachlorocyclopentadiene	45.9	75.0	61.2%	45.8	75.0	75.0	61.1%	0.2%
2,4,6-Trichlorophenol	17.3	25.0	69.2%	18.1	25.0	25.0	72.4%	4.5%
2,4,5-Trichlorophenol	18.2	25.0	72.8%	18.4	25.0	25.0	73.6%	1.1%
2-Chloronaphthalene	17.5	25.0	70.0%	17.9	25.0	25.0	71.6%	2.3%
2-Nitroaniline	16.7	25.0	66.8%	17.6	25.0	25.0	70.4%	5.2%
Dimethylphthalate	19.1	25.0	76.4%	20.4	25.0	25.0	81.6%	6.6%
Acenaphthylene	18.3	25.0	73.2%	19.0	25.0	25.0	76.0%	3.8%
3-Nitroaniline	17.7	64.0	27.7%	19.7	64.0	64.0	30.8%	10.7%
Acenaphthene	17.9	25.0	71.6%	18.4	25.0	25.0	73.6%	2.8%
2,4-Dinitrophenol	75.8	75.0	101%	85.7	75.0	75.0	114%	12.3%
4-Nitrophenol	9.6	25.0	38.4%	10.2	25.0	25.0	40.8%	6.3%
Dibenzofuran	18.4	25.0	73.6%	19.4	25.0	25.0	77.6%	5.3%
2,6-Dinitrotoluene	18.6	25.0	74.4%	19.8	25.0	25.0	79.2%	6.2%
2,4-Dinitrotoluene	19.7	25.0	78.8%	21.1	25.0	25.0	84.4%	6.9%
Diethylphthalate	19.1	25.0	76.4%	20.7	25.0	25.0	82.8%	8.0%
4-Chlorophenyl-phenylether	18.0	25.0	72.0%	19.0	25.0	25.0	76.0%	5.4%
Fluorene	19.2	25.0	76.8%	20.1	25.0	25.0	80.4%	4.6%
4-Nitroaniline	17.6	25.0	70.4%	18.7	25.0	25.0	74.8%	6.1%
4,6-Dinitro-2-Methylphenol	68.3	75.0	91.1%	76.8	75.0	75.0	102%	11.7%
N-Nitrosodiphenylamine	16.9	25.0	67.6%	18.1	25.0	25.0	72.4%	6.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 13:24

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	16.8	25.0	67.2%	18.1	25.0	72.4%	7.4%
Hexachlorobenzene	17.2	25.0	68.8%	18.4	25.0	73.6%	6.7%
Pentachlorophenol	18.7	25.0	74.8%	20.5	25.0	82.0%	9.2%
Phenanthrene	18.8	28.0	67.1%	20.0	28.0	71.4%	6.2%
Carbazole	19.9	25.0	79.6%	21.4	25.0	85.6%	7.3%
Anthracene	18.3	25.0	73.2%	19.5	25.0	78.0%	6.3%
Di-n-Butylphthalate	19.3	25.0	77.2%	20.8	25.0	83.2%	7.5%
Fluoranthene	19.0	25.0	76.0%	20.3	25.0	81.2%	6.6%
Pyrene	19.7	25.0	78.8%	21.4	25.0	85.6%	8.3%
Butylbenzylphthalate	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
3,3'-Dichlorobenzidine	34.0	64.0	53.1%	41.0	64.0	64.1%	18.7%
Benzo(a)anthracene	18.5	25.0	74.0%	20.2	25.0	80.8%	8.8%
bis(2-Ethylhexyl)phthalate	19.8	25.0	79.2%	22.0	25.0	88.0%	10.5%
Chrysene	18.6	28.0	66.4%	19.8	28.0	70.7%	6.2%
Di-n-Octyl phthalate	18.4	25.0	73.6%	19.9	25.0	79.6%	7.8%
Benzo(b)fluoranthene	20.1	25.0	80.4%	22.5	25.0	90.0%	11.3%
Benzo(k)fluoranthene	19.9	28.0	71.1%	21.2	28.0	75.7%	6.3%
Benzo(a)pyrene	15.5	25.0	62.0%	17.3	25.0	69.2%	11.0%
Indeno(1,2,3-cd)pyrene	17.6	25.0	70.4%	19.4	25.0	77.6%	9.7%
Dibenz(a,h)anthracene	17.7	25.0	70.8%	19.4	25.0	77.6%	9.2%
Benzo(g,h,i)perylene	16.9	25.0	67.6%	18.5	25.0	74.0%	9.0%
1-Methylnaphthalene	19.5	25.0	78.0%	19.8	25.0	79.2%	1.5%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	67.2%	63.2%
2-Fluorobiphenyl	67.6%	69.6%
d14-p-Terphenyl	78.4%	84.4%
d4-1,2-Dichlorobenzene	69.2%	65.2%
d5-Phenol	33.3%	32.0%
2-Fluorophenol	48.5%	45.6%
2,4,6-Tribromophenol	80.3%	85.9%
d4-2-Chlorophenol	75.2%	69.9%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4573  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/12/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/14/09 12:09  
LCSD: 02/14/09 12:44

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	19.5	25.0	78.0%	16.5	25.0	66.0%	16.7%	
Bis-(2-Chloroethyl) Ether	18.2	25.0	72.8%	16.1	25.0	64.4%	12.2%	
2-Chlorophenol	18.5	25.0	74.0%	16.2	25.0	64.8%	13.3%	
1,3-Dichlorobenzene	12.6	25.0	50.4%	11.6	25.0	46.4%	8.3%	
1,4-Dichlorobenzene	13.0	25.0	52.0%	12.0	25.0	48.0%	8.0%	
Benzyl Alcohol	35.1	50.0	70.2%	31.2	50.0	62.4%	11.8%	
1,2-Dichlorobenzene	13.6	25.0	54.4%	12.4	25.0	49.6%	9.2%	
2-Methylphenol	18.8	25.0	75.2%	16.2	25.0	64.8%	14.9%	
2,2'-Oxybis(1-Chloropropane)	19.0	25.0	76.0%	16.8	25.0	67.2%	12.3%	
4-Methylphenol	38.9	50.0	77.8%	34.1	50.0	68.2%	13.2%	
N-Nitroso-Di-N-Propylamine	18.9	25.0	75.6%	17.0	25.0	68.0%	10.6%	
Hexachloroethane	11.4	25.0	45.6%	10.6	25.0	42.4%	7.3%	
Nitrobenzene	18.7	25.0	74.8%	17.6	25.0	70.4%	6.1%	
Isophorone	20.1	25.0	80.4%	19.6	25.0	78.4%	2.5%	
2-Nitrophenol	18.4	25.0	73.6%	17.6	25.0	70.4%	4.4%	
2,4-Dimethylphenol	18.0	25.0	72.0%	16.7	25.0	66.8%	7.5%	
Benzoic Acid	64.1	75.0	85.5%	59.9	75.0	79.9%	6.8%	
bis(2-Chloroethoxy) Methane	18.3	25.0	73.2%	17.8	25.0	71.2%	2.8%	
2,4-Dichlorophenol	19.1	25.0	76.4%	18.6	25.0	74.4%	2.7%	
1,2,4-Trichlorobenzene	13.8	25.0	55.2%	14.0	25.0	56.0%	1.4%	
Naphthalene	16.4	25.0	65.6%	15.7	25.0	62.8%	4.4%	
4-Chloroaniline	56.2	60.0	93.7%	52.5	60.0	87.5%	6.8%	
Hexachlorobutadiene	11.9	25.0	47.6%	12.7	25.0	50.8%	6.5%	
4-Chloro-3-methylphenol	20.9	25.0	83.6%	20.1	25.0	80.4%	3.9%	
2-Methylnaphthalene	17.0	25.0	68.0%	16.8	25.0	67.2%	1.2%	
Hexachlorocyclopentadiene	31.3	75.0	41.7%	38.6	75.0	51.5%	20.9%	
2,4,6-Trichlorophenol	18.9	25.0	75.6%	20.4	25.0	81.6%	7.6%	
2,4,5-Trichlorophenol	19.6	25.0	78.4%	20.7	25.0	82.8%	5.5%	
2-Chloronaphthalene	16.2	25.0	64.8%	17.8	25.0	71.2%	9.4%	
2-Nitroaniline	21.8	25.0	87.2%	22.0	25.0	88.0%	0.9%	
Dimethylphthalate	21.0	25.0	84.0%	21.2	25.0	84.8%	0.9%	
Acenaphthylene	18.4	25.0	73.6%	19.4	25.0	77.6%	5.3%	
3-Nitroaniline	65.7	64.0	103%	63.6	64.0	99.4%	3.2%	
Acenaphthene	18.4	25.0	73.6%	19.8	25.0	79.2%	7.3%	
2,4-Dinitrophenol	93.0	75.0	124%	93.8	75.0	125%	0.9%	
4-Nitrophenol	22.4	25.0	89.6%	21.8	25.0	87.2%	2.7%	
Dibenzofuran	19.3	25.0	77.2%	20.2	25.0	80.8%	4.6%	
2,6-Dinitrotoluene	21.2	25.0	84.8%	21.2	25.0	84.8%	0.0%	

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4573  
Matrix: Water  
Date Analyzed: 02/14/09 12:09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrotoluene	22.0	25.0	88.0%	21.6	25.0	86.4%	1.8%
Diethylphthalate	20.4	25.0	81.6%	20.2	25.0	80.8%	1.0%
4-Chlorophenyl-phenylether	19.7	25.0	78.8%	20.2	25.0	80.8%	2.5%
Fluorene	20.4	25.0	81.6%	20.8	25.0	83.2%	1.9%
4-Nitroaniline	21.4	25.0	85.6%	20.4	25.0	81.6%	4.8%
4,6-Dinitro-2-Methylphenol	76.5	75.0	102%	80.2	75.0	107%	4.7%
N-Nitrosodiphenylamine	19.2	25.0	76.8%	20.2	25.0	80.8%	5.1%
4-Bromophenyl-phenylether	18.9	25.0	75.6%	20.7	25.0	82.8%	9.1%
Hexachlorobenzene	19.6	25.0	78.4%	21.6	25.0	86.4%	9.7%
Pentachlorophenol	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
Phenanthrene	20.5	25.0	82.0%	21.6	25.0	86.4%	5.2%
Carbazole	20.8	25.0	83.2%	21.2	25.0	84.8%	1.9%
Anthracene	19.8	25.0	79.2%	21.0	25.0	84.0%	5.9%
Di-n-Butylphthalate	20.4	25.0	81.6%	21.3	25.0	85.2%	4.3%
Fluoranthene	20.2	25.0	80.8%	21.9	25.0	87.6%	8.1%
Pyrene	21.1	25.0	84.4%	19.6	25.0	78.4%	7.4%
Butylbenzylphthalate	20.9	25.0	83.6%	20.2	25.0	80.8%	3.4%
3,3'-Dichlorobenzidine	52.2	64.0	81.6%	57.5	64.0	89.8%	9.7%
Benzo(a)anthracene	20.4	25.0	81.6%	21.4	25.0	85.6%	4.8%
bis(2-Ethylhexyl)phthalate	21.0	25.0	84.0%	20.8	25.0	83.2%	1.0%
Chrysene	19.9	25.0	79.6%	20.9	25.0	83.6%	4.9%
Di-n-Octyl phthalate	20.2	25.0	80.8%	21.8	25.0	87.2%	7.6%
Benzo(b)fluoranthene	19.6	25.0	78.4%	22.0	25.0	88.0%	11.5%
Benzo(k)fluoranthene	22.6	25.0	90.4%	21.1	25.0	84.4%	6.9%
Benzo(a)pyrene	16.6	25.0	66.4%	17.8	25.0	71.2%	7.0%
Indeno(1,2,3-cd)pyrene	19.4	25.0	77.6%	22.0	25.0	88.0%	12.6%
Dibenz(a,h)anthracene	18.9	25.0	75.6%	21.5	25.0	86.0%	12.9%
Benzo(g,h,i)perylene	18.4	25.0	73.6%	20.7	25.0	82.8%	11.8%
1-Methylnaphthalene	18.0	25.0	72.0%	17.8	25.0	71.2%	1.1%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	76.0%	70.0%
2-Fluorobiphenyl	71.2%	75.2%
d14-p-Terphenyl	90.0%	82.0%
d4-1,2-Dichlorobenzene	65.6%	59.2%
d5-Phenol	79.2%	67.7%
2-Fluorophenol	72.5%	63.7%
2,4,6-Tribromophenol	93.1%	90.9%
d4-2-Chlorophenol	75.5%	65.6%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 12:49  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 12:49

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	58.4%
d14-p-Terphenyl	83.6%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	30.7%	2-Fluorophenol	45.6%
2,4,6-Tribromophenol	70.9%	d4-2-Chlorophenol	69.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209  
LIMS ID: 09-4573  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 11:35  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209  
LIMS ID: 09-4573  
Matrix: Water  
Date Analyzed: 02/14/09 11:35

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	72.0%	2-Fluorophenol	70.9%
2,4,6-Tribromophenol	74.9%	d4-2-Chlorophenol	74.1%

ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: PZ-6-090204

SAMPLE

Lab Sample ID: OL24A

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 17:31

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 59.7%  
 d14-Dibenzo(a,h)anthracene 35.7%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: PZ-3-090204

SAMPLE

Lab Sample ID: OL24B

LIMS ID: 09-3552

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 17:53

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 61.7%  
d14-Dibenzo (a,h) anthracene 71.3%



ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-200-090204

SAMPLE

Lab Sample ID: OL24C

LIMS ID: 09-3553

Matrix: Water

Data Release Authorized: *W*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 18:16

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylanthracene 59.3%  
d14-Dibenzo(a,h)anthracene 70.7%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-020909	63.3%	80.0%	0
LCS-020909	63.7%	81.3%	0
LCSD-020909	58.7%	79.7%	0
PZ-6-090204	59.7%	35.7%	0
PZ-3-090204	61.7%	71.3%	0
I-200-090204	59.3%	70.7%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(MNP) = d10-2-Methylnaphthalene	(49-113)	(44-112)
(DBA) = d14-Dibenzo(a,h)anthracene	(49-132)	(10-138)

Prep Method: SW3520C  
Log Number Range: 09-3551 to 09-3553

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-020909

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020909

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 02/09/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/11/09 12:37

Final Extract Volume LCS: 0.50 mL

LCSD: 02/11/09 12:59

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/PK

Dilution Factor LCS: 1.00

LCSD: NT1/PK

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzo(a)anthracene	2.27	3.00	75.7%	2.38	3.00	79.3%	4.7%
Chrysene	2.43	3.00	81.0%	2.45	3.00	81.7%	0.8%
Benzo(b)fluoranthene	2.53	3.00	84.3%	2.41	3.00	80.3%	4.9%
Benzo(k)fluoranthene	2.94	3.00	98.0%	3.04	3.00	101%	3.3%
Benzo(a)pyrene	2.57	3.00	85.7%	2.49	3.00	83.0%	3.2%
Indeno(1,2,3-cd)pyrene	2.41	3.00	80.3%	2.47	3.00	82.3%	2.5%
Dibenz(a,h)anthracene	2.52	3.00	84.0%	2.50	3.00	83.3%	0.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	63.7%	58.7%
d14-Dibenzo(a,h)anthracene	81.3%	79.7%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-020909

METHOD BLANK

Lab Sample ID: MB-020909

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: *mw*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 12:14

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 63.3%  
d14-Dibenzo(a,h)anthracene 80.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 14:05  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	55.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 14:23  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	84.2%
Tetrachlorometaxylene	60.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C  
LIMS ID: 09-3553  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 14:40  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	62.0%

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-020909	88.8%	47-101	65.8%	61-104	0
LCS-020909	81.8%	47-101	57.2%*	61-104	1
LCSD-020909	83.8%	47-101	59.5%*	61-104	1
PZ-6-090204	87.5%	42-120	55.5%	55-102	0
PZ-3-090204	84.2%	42-120	60.8%	55-102	0
I-200-090204	78.2%	42-120	62.0%	55-102	0

Prep Method: SW3510C  
Log Number Range: 09-3551 to 09-3553

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-020909  
LCS/LCSD

Lab Sample ID: LCS-020909  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted LCS/LCSD: 02/09/09  
Date Analyzed LCS: 02/10/09 10:57  
LCSD: 02/10/09 11:14  
Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount LCS: 500 mL  
LCSD: 500 mL  
Final Extract Volume LCS: 5.0 mL  
LCSD: 5.0 mL  
Dilution Factor LCS: 1.00  
LCSD: 1.00  
Silica Gel: No  
Acid Cleanup: No

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	3.98	5.00	79.6%	4.25	5.00	85.0%	6.6%
Aroclor 1260	4.50	5.00	90.0%	4.52	5.00	90.4%	0.4%

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	81.8%	83.8%
Tetrachlorometaxylene	57.2%	59.5%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

Sample ID: MB-020909  
METHOD BLANK

Lab Sample ID: MB-020909  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 10:39  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.8%
Tetrachlorometaxylene	65.8%

**ORGANICS ANALYSIS DATA SHEET**  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1  
 Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
 Project: Boeing Isaacson Phase II  
 025173.090

Data Release Authorized:   
 Reported: 02/09/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-020609 09-3551	Method Blank	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	76.8%
OL24A 09-3551	PZ-6-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	83.2%
OL24B 09-3552	PZ-3-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	83.1%
OL24C 09-3553	I-200-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	69.0%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.  
 Diesel value based on the total peaks in the range from C12 to C24.  
 Oil value based on the total peaks in the range from C24 to C38.

HCID SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-020609	76.8%	0
LCS-020609	89.6%	0
LCSD-020609	88.1%	0
PZ-6-090204	83.2%	0
PZ-3-090204	83.1%	0
I-200-090204	69.0%	0

LCS/MB LIMITS      QC LIMITS

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 09-3551 to 09-3553

ORGANICS ANALYSIS DATA SHEET  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1

Sample ID: LCS-020609  
 LCS/LCSD

Lab Sample ID: LCS-020609  
 LIMS ID: 09-3551  
 Matrix: Water  
 Data Release Authorized: *AS*  
 Reported: 02/09/09

QC Report No: OL24-Landau Associates, Inc.  
 Project: Boeing Isaacson Phase II  
 025173.090  
 Date Sampled: 02/04/09  
 Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/06/09  
 Date Analyzed LCS: 02/07/09 02:17  
 LCSD: 02/07/09 02:35  
 Instrument/Analyst LCS: FID/MS  
 LCSD: FID/MS

Sample Amount LCS: 500 mL  
 LCSD: 500 mL  
 Final Extract Volume LCS: 1.0 mL  
 LCSD: 1.0 mL  
 Dilution Factor LCS: 1.00  
 LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.45	3.00	81.7%	2.41	3.00	80.3%	1.6%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	89.6%	88.1%

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

**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Water  
Date Received: 02/04/09

ARI Job: OL24  
Project: Boeing Isaacson Phase II  
025173.090

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
09-3551-020609MB	Method Blank	500 mL	1.00 mL	02/06/09
09-3551-020609LCS	Lab Control	500 mL	1.00 mL	02/06/09
09-3551-020609LCSD	Lab Control Dup	500 mL	1.00 mL	02/06/09
09-3551-OL24A	PZ-6-090204	500 mL	1.00 mL	02/06/09
09-3552-OL24B	PZ-3-090204	500 mL	1.00 mL	02/06/09
09-3553-OL24C	I-200-090204	500 mL	1.00 mL	02/06/09

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: PZ-6-090204

SAMPLE

Lab Sample ID: OL24A

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: 

Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	2	505	
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	5	5	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**  
**DISSOLVED METALS**  
Page 1 of 1

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Data Release Authorized:   
Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	0.2	11.7	
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	1	1	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: I-200-090204

SAMPLE

Lab Sample ID: OL24C

LIMS ID: 09-3553

Matrix: Water

Data Release Authorized: 

Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	0.2	0.8	
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	1	1	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OL24LCS  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:   
Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	26.2	25.0	105%	
Cadmium	6010B	498	500	99.6%	
Chromium	6010B	465	500	93.0%	
Copper	6010B	465	500	93.0%	
Lead	200.8	28	25	112%	
Mercury	7470A	2.1	2.0	105%	
Zinc	6010B	480	500	96.0%	

Reported in µg/L

N-Control limit not met  
Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**  
**DISSOLVED METALS**  
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OL24MB  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:   
Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	0.2	0.2	U
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	1	1	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL  
RL-Reporting Limit

## **Selected Data Tables and Figures for Former PACCAR Property**

**DRAFT INTERIM ACTION WORK PLAN WITH REMEDIAL  
INVESTIGATION AND FEASIBILITY STUDY  
FOR THE UPLAND PORTION FOR  
SOIL AND GROUNDWATER CLEANUP AT  
8801 EAST MARGINAL WAY SOUTH SITE AND  
FORMER PACCAR KENWORTH TRUCK COMPANY SITE  
TUKWILA, WASHINGTON**

Prepared for:

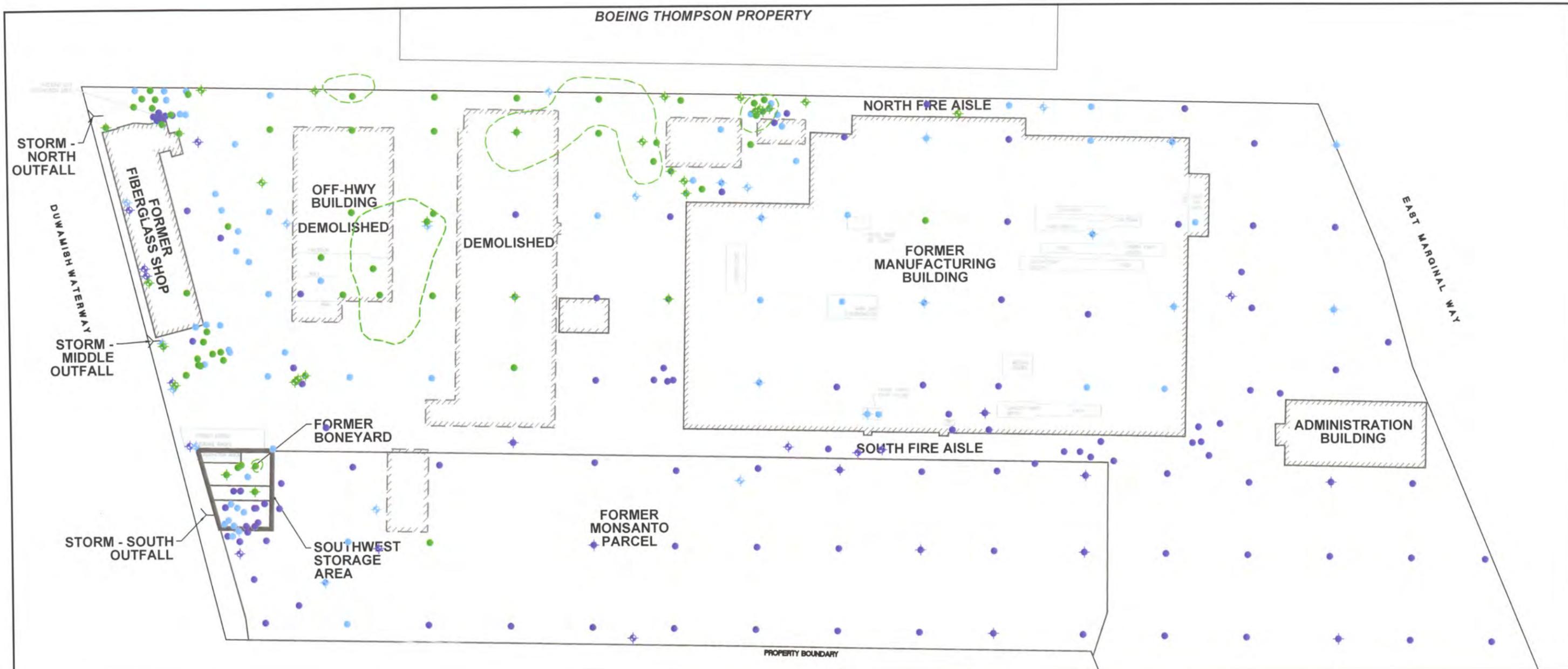
**PACCAR Inc**  
777-106th Avenue N.E.  
Bellevue, Washington 98004

Submitted by:

**AMEC Earth & Environmental, Inc.**  
11335 NE 122nd Way, Suite 100  
Kirkland, Washington 98034

May 16, 2008

7-915-14995-D



**LEGEND:**

- CONCENTRATION BELOW THE METHOD REPORTING LIMIT OR NOT DETECTED
  - CONCENTRATION ABOVE AT LEAST ONE OF THE METHOD REPORTING LIMITS AND BELOW SCREENING LEVELS
  - CONCENTRATION ABOVE AT LEAST ONE OF THE SCREENING LEVELS
- |             |                        |            |  |
|-------------|------------------------|------------|--|
| TCE         | TRICHLOROETHENE        | 0.01 mg/kg | MODEL TOXICS CONTROL ACT METHOD B SOIL. (MTCA B)   |
| PCE         | TETRACHLOROETHENE      | 0.03 mg/kg | MODEL TOXICS CONTROL ACT METHOD B SOIL. (MTCA B)   |
| 1,1-DCE     | 1,1-DICHLOROETHENE     | 5.67 mg/kg | MODEL TOXICS CONTROL ACT METHOD B SOIL CLEANUP LEVELS - 3 PHASE PARTITION CALCULATION. (MTCA B)  |
| cis-1,2-DCE | cis-1,2-DICHLOROETHENE | 0.57 mg/kg | MODEL TOXICS CONTROL ACT METHOD B SOIL. (MTCA B)   |
| VC          | VINYL CHLORIDE         | 0.02 mg/kg | NATIONAL RECOMMENDED WATER QUALITY CRITERIA FOR CONSUMPTION OF ORGANISMS ONLY. 2006 (NRWQS HHCO) |

- HALOGENATED VOLATILE ORGANIC COMPOUNDS AREAS OF POTENTIAL CONCERN AS PREDICTED BY EVALUATION USING BIOCLOR MODEL
  - ◆ CONCENTRATION BELOW THE METHOD REPORTING LIMIT OR NOT DETECTED
  - ◆ CONCENTRATION ABOVE AT LEAST ONE OF THE METHOD REPORTING LIMITS AND BELOW SCREENING LEVELS
  - ◆ CONCENTRATION ABOVE AT LEAST ONE OF THE SCREENING LEVELS
- |             |                        |           |  |
|-------------|------------------------|-----------|--|
| TCE         | TRICHLOROETHENE        | 1.50 ug/L | MODEL TOXICS CONTROL ACT METHOD B SOIL. (MTCA B)   |
| PCE         | TETRACHLOROETHENE      | 0.39 ug/L | MODEL TOXICS CONTROL ACT METHOD B SOIL. (MTCA B)   |
| 1,1-DCE     | 1,1-DICHLOROETHENE     | 72.0 ug/L | MODEL TOXICS CONTROL ACT METHOD B SURFACE WATER - NON CARCINOGENIC. (MTCA B)                     |
| cis-1,2-DCE | cis-1,2-DICHLOROETHENE | 80.0 ug/L | MODEL TOXICS CONTROL ACT METHOD B SOIL. (MTCA B)   |
| VC          | VINYL CHLORIDE         | 2.40 ug/L | NATIONAL RECOMMENDED WATER QUALITY CRITERIA FOR CONSUMPTION OF ORGANISMS ONLY. 2006 (NRWQS HHCO) |

NOTE: All locations are approximate

SCALE IN FEET

CLIENT LOGO

CLIENT  
**PACCAR INC**

---

**AMEC Earth & Environmental**  
11335 N.E. 122nd Way, Suite 100  
Kirkland, WA, U.S.A. 98034-6918



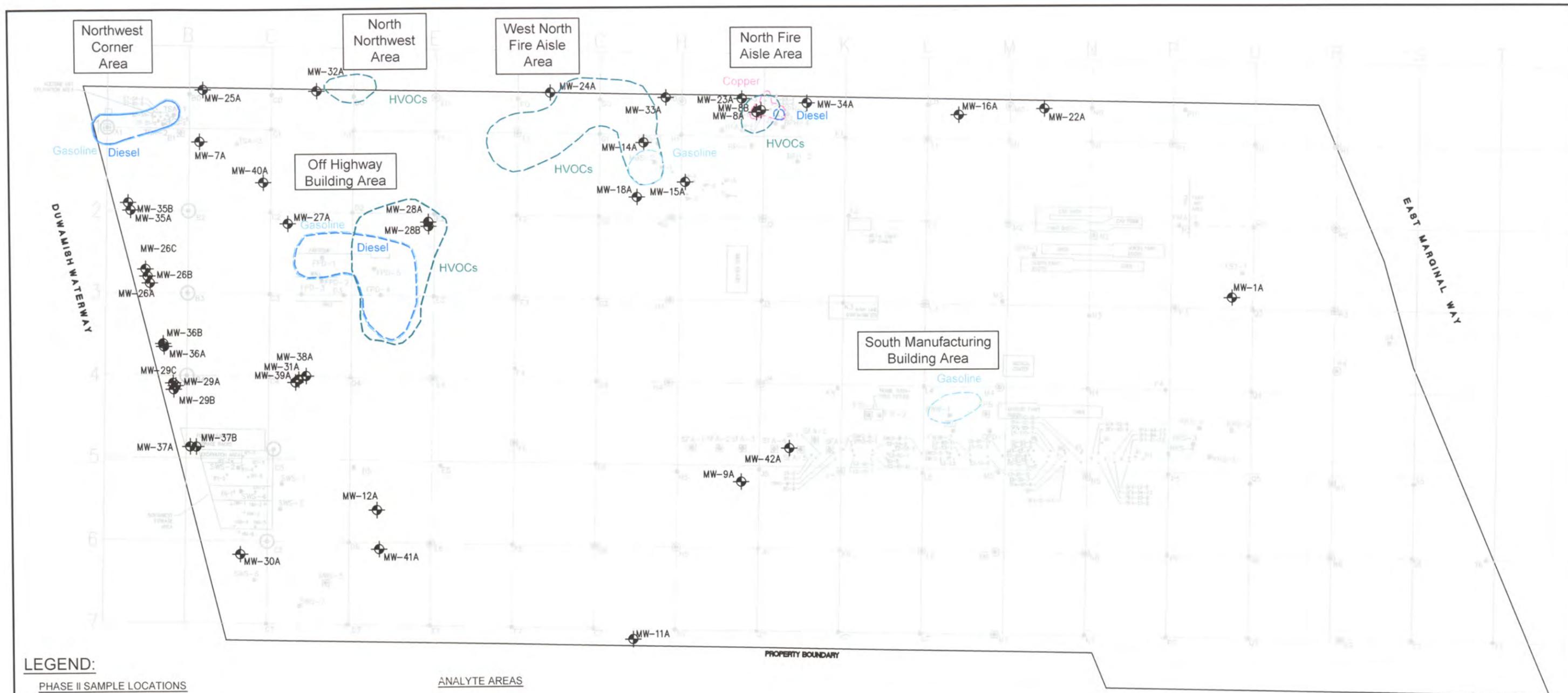
DWN BY: BRJ  
CHK'D BY:  
DATUM: NAD27  
PROJECTION: WA SP North  
SCALE: AS SHOWN

PROJECT  
**8801 EAST MARGINAL WAY SOUTH  
TUKWILA, WASHINGTON**

---

TITLE  
**HVOCs (TCE, PCE, 1,1-DCE, cis-1,2-DCE, VC)  
ANALYTICAL RESULTS IN SOIL & GROUNDWATER**  
**DRAFT**

DATE: MARCH 2008  
PROJECT NO: 791515995D  
REV. NO.: 1  
FIGURE NO: 20



**LEGEND:**

PHASE II SAMPLE LOCATIONS

- GRID SOIL SAMPLING LOCATION
- SHALLOW ZONE GROUNDWATER MONITORING WELL (INSTALLED DURING PHASE II)
- PREVIOUS SOIL BORING LOCATION

ANALYTE AREAS

- Diesel
- Gasoline
- HVOCs
- Copper

NOTE: ALL LOCATIONS ARE APPROXIMATE

 SCALE IN FEET	CLIENT LOGO	CLIENT:	DWN BY: BRJ	PROJECT	DATE: MARCH 2008
		PACCAR INC	CHK'D BY:	8801 EAST MARGINAL WAY SOUTH TUKWILA, WASHINGTON	PROJECT NO: 791514995D
			DATUM: NAD27	TITLE	REV. NO.: 1
		AMEC Earth & Environmental 11335 N.E. 122nd Way, Suite 100 Kirkland, WA, U.S.A. 98034-6918	PROJECTION: WA SP North	AREAS OF CONCERN IN SOIL AND GROUNDWATER <b>DRAFT</b>	FIGURE No. 29
			SCALE: AS SHOWN		

**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

Sample Location	Sample Date	Chemical Name:																											
		1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	1-Chlorohexane	2,2-Dichloropropane	2-Butanone (Methyl ethyl ketone)	2-Chloroethylvinylether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
A1	4/19/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	13.2	0.309 U	0.274 U	0.294 U	0.285 U	268	0.275 U	0.850 J	0.324 U	0.186 U	105	0.234 U	0.262 U	0.249 U	NT	0.182 U	15.1	NT	0.225 U	1.17 U	0.286 U	
B1	3/25/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	2.75	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
BY-5	2/22/2002	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	3.30	0.600 U	0.600 U	1.50 U	1.50 U	1.50 U	0.800	3.00 U	0.600 U	0.600 U	0.600 U	0.800	0.600 U	0.600 U	0.600 U	NT	0.600 U	3.00 U	1.50 U	0.600 U	3.00 U	0.600 U	
CPB-1	4/12/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
DS-2	2/22/2002	1.00 U	1.00 U	1.00 U	2.00 U	1.00 U	4.40	1.00 U	1.00 U	5.00 U	3.00 U	5.00 U	1.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	5.00 U	5.00 U	1.00 U	5.00 U	1.00 U	
F1	3/19/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	16.9	1.65	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
F3	3/17/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.720 J	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
F5	4/7/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
FTF-1	4/7/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.540 J	0.520 J	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
G6	3/18/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
H3	3/17/2004	89.6 U	106 U	102 U	NT	101 U	114 U	115 U	124 U	110 U	118 U	114 U	91.2 U	110 U	110 U	130 U	74.4 U	85.2 U	93.6 U	105 U	99.6 U	NT	72.8 U	556 U	NT	90.0 U	468 U	114 U	
HM-6	2/22/2002	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	1.10	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
J2	4/19/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	1.20	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	2.00	0.275 U	0.274 U	1.57	0.186 U	0.600 J	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
J4	3/18/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
K5	4/1/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
L1	4/20/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	1.99	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
L3	3/19/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
L6	4/1/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
M7	4/5/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U	
MW-11A	3/27/2002	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-11A	3/3/2006	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	2.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-11A	8/11/2006	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	2.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-12A	3/26/2002	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	3.10	2.00	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-14A	3/27/2002	0.200 U	80.0	0.200 U	0.200 U	0.600	13.0	12.0	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	9.900	0.500 U	0.200 U	1.00 U	0.200 U	
MW-14A	3/3/2006	1.00 U	62.0	1.00 U	1.00 U	1.00 U	6.80	3.20	1.00 U	2.50 U	2.50 U	2.50 U	1.00 U	10.0 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	5.00 U	2.50 U	1.00 U	5.00 U	1.00 U	
MW-14A	8/11/2006	0.200 U	60.0 ES	0.200 U	0.200 U	0.400	5.60	2.40	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	2.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-15A	3/27/2002	0.200 U	2.20	0.200 U	0.200 U	0.200 U	0.800	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-16A	3/28/2002	0.200 U	30.0	0.200 U	0.200 U	0.200 U	3.20	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.500	1.00 U	0.200 U	0.200 U	0.200 U	0.300	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-16A	3/6/2006	0.200 U	5.60	0.200 U	0.200 U	0.200 U	2.60	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	2.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-16A	8/14/2006	0.200 U	0.900	0.200 U	0.200 U	0.200 U	2.40	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	2.80	2.00 U	0.200 U	0.200 U	0.200 U	0.500	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-18A	3/27/2002	0.200 U	1.70	0.200 U	0.200 U	0.200 U	2.40	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	4.00	0.500 U	0.200 U	1.00 U	0.200 U	
MW-19B	3/27/2002	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-1A	3/28/2002	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-1A	3/6/2006	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	2.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-1A	8/14/2006	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	2.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-22A	3/28/2002	0.200 U	1.20	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-23A	3/27/2002	0.200 U	29.0	0.200 U	0.200 U	0.200 U	4.20	0.400	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U	
MW-24A	3/27/2002	0.200 U	0.200 U	0.200 U	0.200																								



**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

Sample Location	Sample Date	Chemical Name:	Isopropylbenzene	m,p-Xylenes	Methyl Iodide	Methyl tert-Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-butene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
		NL	16,000 <sup>a</sup>	NL	NL	5.833 <sup>b</sup>	53.8 <sup>c</sup>	NL	NL	16,000 <sup>a</sup>	NL	1.458 <sup>b</sup>	NL	0.39 <sup>d</sup>	1,400 <sup>e</sup>	16,000 <sup>a</sup>	160 <sup>a</sup>	NL	NL	0.11 <sup>b</sup>	NL	NL	0.029 <sup>b</sup>	
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
A1	4/19/2004	25.9	826	NT	0.258 U	0.252 U	26.2	3.17	48.1	409	0.290 U	0.219 U	0.278 U	0.250 U	1,310	NT	18.7	0.181 U	NT	0.223 U	0.181 U	NT	1,360	
B1	3/25/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	1.50	0.181 U	NT	0.223 U	0.181 U	NT	93.3	
BY-5	2/22/2002	0.600 U	1.20 U	0.600 U	NT	0.900 U	0.00150 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U	NT	0.600 U	0.600 U	3.00 U	0.600 U	0.600 U	0.600 U	17.0	
CPB-1	4/12/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U	
DS-2	2/22/2002	1.00 U	1.00 U	1.00 U	NT	2.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	1.00 U	5.00 U	49.0	
F1	3/19/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	35.4	0.181 U	NT	58.9	0.181 U	NT	2,590	
F3	3/17/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.540 J	0.181 U	NT	9.11	0.181 U	NT	1.79	
F5	4/7/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U	
FTF-1	4/7/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U	
G6	3/18/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U	
H3	3/17/2004	101 U	184 U	NT	103 U	101 U	108 U	111 U	110 U	89.2 U	116 U	87.6 U	111 U	100 U	80.8 U	NT	121 U	72.4 U	NT	89.2 U	72.4 U	NT	1,020	
HM-6	2/22/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000600	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	1.30	
J2	4/19/2004	0.252 U	28.8	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	6.37	0.290 U	0.219 U	0.278 U	0.250 U	6.46	NT	0.302 U	0.181 U	NT	0.570 J	0.181 U	NT	0.910 J	
J4	3/18/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.530 J	
K5	4/1/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U	
L1	4/20/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.810 J	
L3	3/19/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.510 J	
L6	4/1/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U	
M7	4/5/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U	
MW-11A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
MW-11A	3/3/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
MW-11A	8/11/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
MW-12A	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
MW-14A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	2.40	32.0 J	NT	0.200 U	0.200 U	1.00 U	82.0	0.200 U	0.200 U	0.400	
MW-14A	3/3/2006	1.00 U	2.00 U	1.00 U	NT	2.00	0.00250 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00	1.00 U	NT	1.00 U	1.00 U	5.00 U	74.0	1.00 U	1.00 U	1.00 U	
MW-14A	8/11/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	4.10	0.200 U	NT	0.200 U	0.200 U	1.00 U	63.0 ES	0.200 U	0.200 U	0.200	
MW-15A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.400	0.200 U	NT	0.200 U	0.200 U	1.00 U	1.60	0.200 U	0.200 U	0.200 U	
MW-16A	3/28/2002	0.500	5.60	0.200 U	NT	0.300 U	0.000500 U	0.200 U	1.10	0.200 U	0.200 U	0.200 U	0.200 U	1.00	0.200 U	NT	0.200 U	0.200 U	1.00 U	1.60	0.200 U	0.200 U	0.200 U	
MW-16A	3/6/2006	0.800	1.00	0.200 U	NT	0.300 U	0.000500 U	0.200	1.50	0.200 U	0.300	0.200 U	0.200 U	1.00	0.200 U	NT	0.200 U	0.200 U	1.00 U	1.00	0.200 U	0.200 U	0.200 U	
MW-16A	8/14/2006	6.90	0.800	0.200 U	NT	0.300 U	0.000500 U	1.80	11.0	0.200 U	2.10	0.200 U	0.200 U	0.200	0.500	NT	0.200 U	0.200 U	1.00 U	1.00	0.200 U	0.200 U	0.200 U	
MW-18A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200	0.200 U	1.00 U	0.500	0.200 U	0.200 U	0.600	
MW-19B	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.800	
MW-1A	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
MW-1A	3/6/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
MW-1A	8/14/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
MW-22A	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.300	0.200 U	NT	0.200 U	0.200 U	1.00 U	1.20	0.200 U	0.200 U	0.200 U	
MW-23A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	4.20	0.200 U	NT	0.200 U	0.200 U	1.00 U	8.50	0.200 U	0.200 U	0.200 U	
MW-24A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.300	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.600	0.200 U	0.200 U	1.00	
MW-25A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200	0.200 U	1.00 U	0.800	0.200 U	0.200 U	2.60	
MW-25A	3/2/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.500	
MW-25A	8/10/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200	0.200 U	0.200 U	2.00	



**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

Well ID	Sample Date	Chemical Name:																												
		4-Isopropyltoluene	4-Methyl-2-pentanone	4-Methyl-2-Pentanone (MIBK)	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Ethylene Dibromide	Hexachlorobutadiene	Hexane	
		18.18	NL	NL	800 <sup>a</sup>	NL	NL	0.7955 <sup>a</sup>	NL	NL	0.7056 <sup>b</sup>	NL	5.538 <sup>b</sup>	NL	800 <sup>a</sup>	NL	160 <sup>a</sup>	NL	7.172 <sup>b</sup>	3.365 <sup>b</sup>	80 <sup>a</sup>	NL	NL	NL	NL	800 <sup>a</sup>	NL	0.5609 <sup>b</sup>	NL	
MW-26A	3/29/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.400	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	41.0	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-26A	1/31/2005	2.00 U	NT	20.0 U	40.0 U	NT	NT	2.00 U	2.00 U	2.00 U	2.00 U	NT	2.00 U	4.00 U	2.00 U	2.00 U	2.00 U	2.00 U	80.1	2.00 U	10.0 U	13.0	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NT
MW-26A	4/4/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	9.50	1.00 U	5.00 U	13.4	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2.00 U
MW-26A	7/12/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.91	1.00 U	5.00 U	19.9	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2.00 U
MW-26A	9/27/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	16.9	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2.00 U
MW-26A	12/27/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	11.7	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2.00 U
MW-26A	2/27/2006	0.200 U	NT	1.00 U	2.10	5.00 U	1.00 U	0.300	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	12.0	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-26A	2/27/2006	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.400	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	13.0	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-26A	4/11/2006	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	5.69	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2.00 U
MW-26A	6/26/2006	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	11.6	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	2.00 U
MW-26A	8/7/2006	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	10.0	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-26A	10/3/2006	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	9.06	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	2.00 U
MW-26A	1/12/2007	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	2.09	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	2.00 U
MW-26A	4/13/2007	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	6.24	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	2.00 U
MW-26B	3/28/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-26B	2/27/2006	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-26B	2/27/2006	0.200 U	NT	1.00 U	1.10	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-26B	8/7/2006	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-26C	3/29/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-26C	2/27/2006	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-26C	2/27/2006	0.200 U	NT	1.00 U	2.20	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-26C	8/7/2006	0.200 U	NT	1.00 U	1.70	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
MW-27A	3/26/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.800	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-28A	3/28/2002	0.200 U	NT	1.00 U	1.20	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	480	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-28A	3/3/2006	0.200 U	NT	1.00 U	2.20	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	98.0 ES	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-28A	8/11/2006	0.200 U	NT	1.00 U	1.20	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	75.0 ES	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-28B	3/28/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	48.0	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-28B	3/3/2006	0.200 U	NT	1.00 U	2.20	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	23.0	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-28B	8/11/2006	0.200 U	NT	1.00 U	2.60	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	1.80	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-29A	3/26/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.300	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	57.0	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT	
MW-29A	1/31/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	46.0	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT
MW-29A	4/4/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	45.3	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2.00 U
MW-29A	7/12/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	2.00 U
MW-29A	9/29/2005	1.00 U	NT	10.0 U	20.0 U	NT	NT	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	2.00 U	1.00															

**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

	Chemical Name:	Isopropylbenzene	m,p-Xylenes	Methyl Iodide	Methyl tert-Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
		NL	16,000 <sup>a</sup>	NL	NL	5.833 <sup>b</sup>	53.8 <sup>c</sup>	NL	NL	16,000 <sup>a</sup>	NL	1.458 <sup>b</sup>	NL	0.39 <sup>d</sup>	1,400 <sup>e</sup>	16,000 <sup>a</sup>	160 <sup>a</sup>	NL	NL	0.11 <sup>b</sup>	NL	NL	0.029 <sup>b</sup>
MW-26A	3/29/2002	0.200 U	0.400 U	0.200 U	NT	0.300	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	2.40	0.200 U	1.00 U	<b>4.50</b>	0.200 U	0.200 U	<b>48.0</b>
MW-26A	1/31/2005	2.00 U	4.00 U	NT	4.00 U	10.0 U	0.00200 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NT	2.00 U	2.00 U	NT	<b>2.02</b>	2.00 U	NT	<b>14.2</b>
MW-26A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	<b>4.87</b>	1.00 U	NT	<b>3.13</b>
MW-26A	7/12/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	2.10	1.00 U	NT	<b>4.60</b>	1.00 U	NT	<b>3.12</b>
MW-26A	9/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.77	1.00 U	NT	<b>3.08</b>	1.00 U	NT	<b>1.68</b>
MW-26A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	<b>4.47</b>	1.00 U	NT	1.00 U
MW-26A	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	1.30	0.200 U	1.00 U	<b>5.70</b>	0.200 U	0.200 U	<b>1.60</b>
MW-26A	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	1.70	0.200 U	1.00 U	<b>5.80</b>	0.200 U	0.200 U	<b>2.40</b>
MW-26A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>5.59</b>	1.00 U	NT	1.00 U
MW-26A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>3.50</b>	1.00 U	NT	1.00 U
MW-26A	8/7/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	1.40	0.200 U	1.00 U	<b>2.70</b>	0.200 U	0.200 U	<b>0.400</b>
MW-26A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.26	1.00 U	NT	<b>2.20</b>	1.00 U	NT	1.00 U
MW-26A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>1.61</b>	1.00 U	NT	1.00 U
MW-26A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>3.31</b>	1.00 U	NT	1.00 U
MW-26B	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-26B	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-26B	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-26B	8/7/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-26C	3/29/2002	0.200 U	0.400 U	0.200 U	NT	0.300	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-26C	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-26C	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-26C	8/7/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-27A	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	<b>0.200</b>	0.200 U	0.200 U	<b>1.00</b>
MW-28A	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	7.80	0.200 U	1.00 U	<b>0.400</b>	0.200 U	0.200 U	<b>69.0</b>
MW-28A	3/3/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	8.70	0.200 U	1.00 U	<b>0.300</b>	0.200 U	0.200 U	<b>69.0 ES</b>
MW-28A	8/11/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	3.70	0.200 U	1.00 U	<b>0.200</b>	0.200 U	0.200 U	<b>35.0 ES</b>
MW-28B	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	<b>0.300</b>
MW-28B	3/3/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-28B	8/11/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-29A	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	2.00	0.200 U	1.00 U	<b>8.90</b>	0.200 U	0.200 U	<b>33.0</b>
MW-29A	1/31/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.26	1.00 U	NT	<b>2.19</b>	1.00 U	NT	<b>11.4</b>
MW-29A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.18	1.00 U	NT	<b>1.93</b>	1.00 U	NT	<b>8.25</b>
MW-29A	7/12/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-29A	9/29/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	<b>1.20</b>	1.00 U	NT	<b>2.96</b>
MW-29A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	<b>8.57</b>
MW-29A	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	1.00	0.200 U	1.00 U	<b>1.40</b>	0.200 U	0.200 U	<b>4.40</b>
MW-29A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>4.30</b>	1.00 U	NT	<b>1.48</b>
MW-29A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>4.17</b>	1.00 U	NT	1.00 U
MW-29A	8/8/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.800	0.200 U	1.00 U	<b>1.50</b>	0.200 U	0.200 U	<b>0.900</b>
MW-29A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>7.77</b>	1.00 U	NT	1.00 U
MW-29A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>12.5</b>	1.00 U	NT	1.00 U
MW-29A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	<b>3.16</b>	1.00 U	NT	1.00 U
MW-29B	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	<b>1.00</b>





**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

	Chemical Name:	Isopropylbenzene	m,p-Xylenes	Methyl Iodide	Methyl tert-Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride	
		NL	16,000 <sup>a</sup>	NL	NL	5.833 <sup>b</sup>	53.8 <sup>c</sup>	NL	NL	16,000 <sup>a</sup>	NL	1.458 <sup>b</sup>	NL	0.39 <sup>d</sup>	1,400 <sup>e</sup>	16,000 <sup>a</sup>	160 <sup>a</sup>	NL	NL	0.11 <sup>b</sup>	NL	NL	NL	0.029 <sup>b</sup>
MW-29B	2/28/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.300</b>
MW-29B	8/10/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.200</b>
MW-29C	4/2/2002	0.200 U	0.400 U	0.200 U	NT	0.400	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-29C	2/27/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-29C	8/7/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-30A	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>3.90</b>
MW-30A	1/31/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>1.27</b>
MW-30A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>1.08</b>
MW-30A	7/12/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-30A	9/29/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-30A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-30A	2/28/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.700</b>
MW-30A	2/28/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.700</b>
MW-30A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-30A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-30A	8/10/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.400</b>
MW-30A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-30A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-30A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-31A	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.700	0.200 U	1.00 U	<b>0.400</b>	0.200 U	0.200 U	0.200 U	<b>26.0</b>
MW-31A	5/15/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.600	0.200 U	1.00 U	<b>0.400</b>	0.200 U	0.200 U	0.200 U	<b>26.0</b>
MW-32A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	<b>2.80</b>	0.200 U	0.200 U	0.200 U	<b>7.50</b>
MW-33A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.600</b>	0.200 U	NT	0.900	0.200 U	1.00 U	<b>64.0</b>	0.200 U	0.200 U	0.200 U	<b>4.20</b>
MW-34A	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.400</b>	0.200 U	NT	0.200 U	0.200 U	1.00 U	<b>2.40</b>	0.200 U	0.200 U	0.200 U	0.200 U
MW-35A	3/29/2002	0.200 U	0.400 U	0.200 U	NT	0.300	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	3.30	0.200 U	1.00 U	<b>0.400</b>	0.200 U	0.200 U	0.200 U	<b>51.0</b>
MW-35A	1/31/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.54	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>31.7</b>
MW-35A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.07	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>9.70</b>
MW-35A	7/12/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.97	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>8.04</b>
MW-35A	9/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	2.39	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>17.9</b>
MW-35A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.93	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>19.2</b>
MW-35A	2/28/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	2.60	0.200 U	1.00 U	<b>0.300</b>	0.200 U	0.200 U	0.200 U	<b>7.40</b>
MW-35A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-35A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	NT	1.00 U
MW-35A	8/8/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	1.00	0.200 U	1.00 U	<b>0.400</b>	0.200 U	0.200 U	0.200 U	<b>2.40</b>
MW-35A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.21	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>6.14</b>
MW-35A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	2.18	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>4.39</b>
MW-35A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.33	1.00 U	NT	1.00 U	1.00 U	NT	NT	<b>3.59</b>
MW-35B	3/29/2002	0.200 U	0.400 U	0.200 U	NT	0.300	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.300</b>
MW-35B	2/28/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-35B	8/8/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	<b>0.400</b>	0.200 U	0.200 U	0.200 U	0.200 U
MW-36A	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.600	0.200 U	1.00 U	<b>47.0</b>	0.200 U	0.200 U	0.200 U	<b>4.90</b>
MW-36A	1/31/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	<b>31.3</b>	1.00 U	NT	NT	<b>1.15</b>
MW-36A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	<b>34.2</b>	1.00 U	NT	NT	1.00 U





**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

	Chemical Name:	Isopropylbenzene	m,p-Xylenes	Methyl Iodide	Methyl tert-Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
		NL	16,000 <sup>a</sup>	NL	NL	5.833 <sup>b</sup>	53.8 <sup>c</sup>	NL	NL	16,000 <sup>a</sup>	NL	1.458 <sup>b</sup>	NL	0.39 <sup>d</sup>	1,400 <sup>e</sup>	16,000 <sup>a</sup>	160 <sup>a</sup>	NL	NL	0.11 <sup>b</sup>	NL	NL	NL
MW-36A	7/12/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	27.7	1.00 U	NT	1.00 U
MW-36A	9/29/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	26.7	1.00 U	NT	1.00 U
MW-36A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	24.1	1.00 U	NT	1.00 U
MW-36A	2/28/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200	0.200 U	1.00 U	21.0	0.200 U	0.200 U	0.200 U
MW-36A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	23.0	1.00 U	NT	1.00 U
MW-36A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	20.6	1.00 U	NT	1.00 U
MW-36A	8/10/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200	0.200 U	1.00 U	15.0	0.200 U	0.200 U	0.300
MW-36A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	26.3	1.00 U	NT	1.00 U
MW-36A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	26.0	1.00 U	NT	1.00 U
MW-36A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	23.4	1.00 U	NT	1.00 U
MW-36B	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200	NT	0.200 U	0.200 U	1.00 U	0.500	0.200 U	0.200 U	0.600
MW-36B	2/28/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-36B	8/8/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-37A	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	1.40	0.200 U	0.200 U	0.600
MW-37A	1/31/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	7/14/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	9/29/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.27	1.00 U	NT	1.00 U
MW-37A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-37B	3/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200	0.200 U	0.200 U	1.00
MW-38A	5/2/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.400	0.200 U	1.00 U	0.500	0.200 U	0.200 U	6.40
MW-38A	5/2/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.400	0.200 U	1.00 U	0.400	0.200 U	0.200 U	9.40
MW-38A	5/15/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	1.00	0.200 U	1.00 U	0.500	0.200 U	0.200 U	28.0
MW-39A	5/15/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.700	0.200 U	1.00 U	0.400	0.200 U	0.200 U	22.0
MW-39A	3/2/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-39A	8/11/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-40A	2/17/2004	1.00 U	2.00 U	NT	NT	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	27.5
MW-41A	2/17/2004	1.00 U	2.00 U	NT	NT	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.94
MW-41A	1/31/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-41A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-41A	7/12/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-41A	9/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-41A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-41A	3/2/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.300
MW-41A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-41A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-41A	8/11/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.500
MW-41A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U





**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

	Chemical Name:	Isopropylbenzene	m,p-Xylenes	Methyl Iodide	Methyl tert-Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
		NL	16,000 <sup>a</sup>	NL	NL	5.833 <sup>b</sup>	53.8 <sup>c</sup>	NL	NL	16,000 <sup>a</sup>	NL	1.458 <sup>b</sup>	NL	0.39 <sup>d</sup>	1,400 <sup>e</sup>	16,000 <sup>a</sup>	160 <sup>a</sup>	NL	NL	0.11 <sup>b</sup>	NL	NL	0.029 <sup>b</sup>
MW-41A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.02
MW-41A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-42A	3/6/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-42A	8/14/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-4A	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-6A	3/28/2002	3.40	19.0	0.200 U	NT	0.300 U	0.0120	7.10 M	6.20	3.60	3.30	0.200 U	0.200 U	0.200 U	0.200	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-7A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.500
MW-7A	2/20/2004	1.00 U	2.00 U	NT	NT	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	1/31/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	4/4/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	7/12/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	9/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	12/27/2005	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	3/2/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-7A	4/11/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	6/26/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	8/10/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
MW-7A	10/3/2006	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-7A	1/12/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	13.0
MW-7A	4/13/2007	1.00 U	2.00 U	NT	2.00 U	5.00 U	0.00500 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	3.00 U	1.00 U	1.00 U	NT	1.00 U	1.00 U	NT	1.00 U
MW-8A	3/28/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	8.20	0.200 U	NT	0.200 U	0.200 U	1.00 U	2.30	0.200 U	0.200 U	0.400
MW-8A	3/3/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	19.0	0.200 U	NT	0.200 U	0.200 U	1.00 U	4.20	0.200 U	0.200 U	0.200 U
MW-8A	8/14/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	8.30	0.200 U	NT	0.200 U	0.200 U	1.00 U	3.20	0.200 U	0.200 U	0.200
MW-8B	3/28/2002	0.200 U	0.800	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200	0.200 U	1.00 U	0.800	0.200 U	0.200 U	2.40
MW-8B	3/6/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	2.60
MW-8B	8/14/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.400	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.300
MW-9A	3/27/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.700	0.200 U	0.200 U	0.200 U
MW-9A	3/3/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.400	0.200 U	0.200 U	0.200 U
MW-9A	8/14/2006	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.300	0.200 U	0.200 U	0.200
N2	4/20/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	1.13
N5	3/23/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U
N6	3/23/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U
NA-6	2/20/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	
NA-6	2/20/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	1.10	0.300	NT	0.200 U	0.200 U	1.00 U	1.30	0.200 U	0.200 U	0.900
NA-6	2/20/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200	0.200 U	0.200 U	0.400 M
NA-7	2/21/2002	7.70	63.0 ES	0.200 U	NT	0.300 U	0.00580	0.200 U	7.00	47.0 ES	0.200 U	0.200 U	0.200 U	11.0	2.10	NT	0.200 U	0.200 U	1.00 U	2.00	0.200 U	0.200 U	0.200 U
NA-7	2/21/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
NA-7	2/21/2002	0.400	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.300	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U
P1	4/15/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U
P3	4/12/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U
R1	4/2/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U
R3	4/2/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U
R5	4/6/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U

**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

	Chemical Name:	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	1-Chlorohexane	2,2-Dichloropropane	2-Butanone (Methyl ethyl ketone)	2-Chloroethylvinylether	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene
		NL	7,200 <sup>a</sup>	0.2188 <sup>b</sup>	480,000 <sup>a</sup>	0.7675 <sup>b</sup>	800 <sup>a</sup>	72 <sup>a</sup>	NL	NL	NL	NL	NL	NL	NL	5.19 <sup>c</sup>	0.4808 <sup>b</sup>	0.6434 <sup>a</sup>	400 <sup>a</sup>	NL	NL	NL	NL	NL	NL	NL	NL	NL
R7	4/5/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	0.285 U	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U
SWS-5	4/8/2004	0.224 U	0.266 U	0.255 U	NT	0.253 U	2.95	0.287 U	0.309 U	0.274 U	0.294 U	0.285 U	0.228 U	0.275 U	0.274 U	0.324 U	0.186 U	0.213 U	0.234 U	0.262 U	0.249 U	NT	0.182 U	1.39 U	NT	0.225 U	1.17 U	0.286 U
WP-2	2/21/2002	0.200 U	1.90	0.200 U	0.200 U	0.200 U	5.40	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U
WP-3	2/21/2002	0.200 U	0.900	0.200 U	0.200 U	0.200 U	0.200	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U
WP-5	2/26/2002	0.200 U	1.30	0.200 U	0.200 U	0.200 U	0.600	0.200 U	0.200 U	0.500 U	0.500 U	0.500 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	1.00 U	0.500 U	0.200 U	1.00 U	0.200 U

**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

	Chemical Name:	4-Isopropyltoluene	4-Methyl-2-pentanone	4-Methyl-2-Pentanone (MIBK)	Acetone	Acrolein	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Ethylene Dibromide	Hexachlorobutadiene	Hexane
		18.18	NL	NL	800 <sup>a</sup>	NL	NL	0.7955 <sup>a</sup>	NL	NL	0.7056 <sup>b</sup>	NL	5.538 <sup>b</sup>	NL	800 <sup>a</sup>	NL	160 <sup>a</sup>	NL	7.172 <sup>b</sup>	3.365 <sup>b</sup>	80 <sup>a</sup>	NL	NL	NL	NL	800 <sup>a</sup>	NL	0.5609 <sup>b</sup>	NL
R7	4/5/2004	0.274 U	1.14 U	NT	1.47 U	NT	NT	0.226 U	0.232 U	0.319 U	0.215 U	NT	0.200 U	0.291 U	0.304 U	0.264 U	0.236 U	0.305 U	0.260 U	0.346 U	0.299 U	0.205 U	0.258 U	0.218 U	0.233 U	0.241 U	0.268 U	0.360 U	NT
SWS-5	4/8/2004	0.274 U	1.14 U	NT	1.47 U	NT	NT	0.226 U	0.232 U	0.319 U	0.215 U	NT	0.200 U	0.291 U	0.304 U	0.264 U	0.236 U	0.305 U	0.260 U	0.346 U	3.69	0.205 U	0.258 U	0.218 U	0.233 U	0.241 U	0.268 U	0.360 U	NT
WP-2	2/21/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	1.10	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
WP-3	2/21/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT
WP-5	2/26/2002	0.200 U	NT	1.00 U	1.00 U	5.00 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	0.500 U	NT

**TABLE 17**  
**Volatile Organic Compound Groundwater Analytical Results**  
**8801 East Marginal Way South**  
**Tukwila, Washington**

Chemical Name:		Isopropylbenzene	m,p-Xylenes	Methyl Iodide	Methyl tert-Butyl Ether	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
		NL	16,000 <sup>a</sup>	NL	NL	5.833 <sup>b</sup>	53.8 <sup>c</sup>	NL	NL	16,000 <sup>a</sup>	NL	1.458 <sup>b</sup>	NL	0.39 <sup>d</sup>	1,400 <sup>e</sup>	16,000 <sup>a</sup>	160 <sup>a</sup>	NL	NL	0.11 <sup>b</sup>	NL	NL	0.029 <sup>b</sup>
R7	4/5/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	0.490 U
SWS-5	4/8/2004	0.252 U	0.460 U	NT	0.258 U	0.252 U	0.271 U	0.278 U	0.276 U	0.223 U	0.290 U	0.219 U	0.278 U	0.250 U	0.202 U	NT	0.302 U	0.181 U	NT	0.223 U	0.181 U	NT	<b>0.850 J</b>
WP-2	2/21/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	<b>3.20</b>	0.200 U	0.200 U	<b>0.200</b>
WP-3	2/21/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	<b>0.500</b>	0.200 U	NT	0.200 U	0.200 U	1.00 U	<b>0.200</b>	0.200 U	0.200 U	0.200 U
WP-5	2/26/2002	0.200 U	0.400 U	0.200 U	NT	0.300 U	0.000500 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NT	0.200 U	0.200 U	1.00 U	0.200 U	0.200 U	0.200 U	0.200 U

Notes:

mg/l = milligrams per liter

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

ug/l = micrograms per liter

U = Compound not detected above reporting detection limit.

**BOLD** = Result exceeds listed screening level.

> = Greater than reported value

B = Compound also detected in method blank.

J = Estimated concentration when the value is less than the laboratory reporting limit

M = Estimated value of analyte found and confirmed by analyst but with low spectral match.

Y = Raised laboratory reporting limit due to matrix interference.

E = Estimated concentration greater than the calibration range.

D = Sample analysis performed on a diluted aliquot due to high initial concentration of target analyte.

<sup>a</sup>MTCA Method B for Groundwater - Noncarcinogenic

<sup>b</sup>MTCA Method B for Groundwater - Carcinogenic

<sup>c</sup>Ecology Groundwater Screening Levels (Based on SQS)

<sup>d</sup>MTCA Method B Surface Water Values - Carcinogenic

<sup>e</sup>MTCA Method C for Groundwater - Noncarcinogenic

NT = Not Tested

**Report**  
**Phase II Environmental Site Assessment**  
**Boeing Isaacson Property**  
**8625 East Marginal Way South**  
**Tukwila, Washington**

April 2, 2009

Prepared for

**The Boeing Company**  
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B	Soil Boring Logs
C	Laboratory Analytical Reports

## **1.0 INTRODUCTION**

This report documents the results of a Phase II soil and groundwater investigation conducted for The Boeing Company (Boeing) at the Isaacson property (subject property) located at 8625 East Marginal Way South in Tukwila, Washington (Figure 1). The purpose of this investigation was to evaluate and document the soil and groundwater quality at the subject property as part of Boeing's risk management and due diligence activities. The areas of potential concern were identified as part of Boeing's Environment, Health, and Safety (EHS) property assessment process in the Phase I environmental site assessment (ESA) previously conducted for the subject property (Landau Associates 2008). The Phase I ESA identified environmental conditions at the subject property that, based on historical operations, previous investigations, or observations of site conditions, are considered to pose a potential liability to Boeing as owner of the property. In addition, Boeing requested that Landau Associates complete a round of groundwater sampling from existing wells on the subject property and the adjacent Boeing Thompson property; the results of sampling of seven wells on or near the subject property are included in this report. The results of this Phase II investigation will be used to evaluate potential impacts to soil or groundwater at the subject property and the need for additional action, if appropriate.

### **1.1 PROPERTY DESCRIPTION**

The subject property consists of a 9.84-acre, asphalt-paved parcel of land that is currently owned by Boeing. There are no buildings present on the subject property and the property is currently used for storage by Boeing. The subject property is bounded by Port of Seattle-owned land on the west, followed by the Duwamish Waterway; the Boeing Thompson facility to the south; East Marginal Way South to the east, followed by Boeing Field; and by the Jorgensen Forge Corporation site to the north. A site plan is provided as Figure 2.

Slip 5 of the Duwamish River was previously located along the southern property boundary and extended east across approximately two-thirds of the subject property (Figure 2). Slip 5 was filled between the 1940s and the 1960s. Three buildings associated with the former Isaacson Steel operations were previously located on the subject property. Building 14-05 was a large industrial building that covered most of the subject property. Building 14-07 was located south of Building 14-05, and Building 14-08 was located along the eastern property boundary. These structures were removed from the subject property in approximately 1990. In December 2008, Boeing completed a grading project to remove an asphalt-paved mound in the north-central portion of the subject property that resulted from a soil stabilization project completed at the subject property in 1991.

## 1.2 BACKGROUND

Landau Associates conducted a Phase I ESA at the subject property for Boeing. The Phase I ESA included a review of historical environmental documentation for the subject property and observations of current conditions at the subject property on January 31, 2008 and April 21, 2008. The Phase I ESA identified the following *recognized environmental conditions* at the subject property that were considered to pose a potential liability to Boeing:

- Arsenic was detected in soil and groundwater at the subject property at concentrations greater than the Washington State Model Toxics Control Act (MTCA) cleanup levels during previous investigations. Arsenic was detected in groundwater at the subject property at concentrations ranging from 0.7 micrograms per liter ( $\mu\text{g/L}$ ) to 3,640  $\mu\text{g/L}$  during the most recently sampling event in 2008, with the highest concentration detected in the northwestern portion of the subject property. The highest detected concentration of arsenic in soil at the subject property (outside of the areas where excavations have subsequently occurred) is 3,500 milligrams per kilogram ( $\text{mg/kg}$ ), which was detected in a sample collected in 1988 from along the northern boundary of the stabilized soil excavation. The presence of arsenic in soil and groundwater at the subject property at concentrations greater than MTCA cleanup levels is a *recognized environmental condition*.
- Based on previous subsurface investigations at the subject property, fill material within the former Slip 5 area includes bricks, wood debris, and slag material. Debris within the fill material is a potential source of impact to subsurface soil and groundwater at the subject property. Metals have been detected in the fill material at concentrations greater than the MTCA Method A cleanup levels. The presence of metals at concentrations greater than the MTCA cleanup levels is a *recognized environmental condition*.
- Four diesel underground storage tanks (USTs), three sumps, and one heating oil UST were formerly in operation on the subject property. The tanks were reportedly located on the northern and southern sides of the former 14-05 building and the sumps were located in the vicinity of the former 14-08 building, in the eastern portion of the subject property. Available records indicate that the tanks and sumps have been removed; however, there is no available information regarding the condition of the tanks or the surrounding subsurface soils. Due to the lack of data for confirmation soil samples, the former presence of petroleum USTs on the subject property is a *recognized environmental condition*.
- Historical records indicate that the Mineralized Cell Wood Preserving Company formerly operated on or in the vicinity of the subject property, north of the former location of Slip 5. The operations of this company involved heating a solution of arsenic and sulfate salts of copper and zinc and applying the solution under pressure to the base of logs. Storage tanks associated with this operation were reportedly cleaned twice per day and sludge and remaining chemicals in the tanks were drained directly to the ground surface. The release of arsenic and other metals to the ground surface and the potential for impact to the subject property is a *recognized environmental condition*.

The Phase I ESA identified the following significant data gap:

- The condition of soil and groundwater at Jorgensen Forge Corporation site is considered a significant data gap for the subject property. Contaminants of concern have been identified in

soil and groundwater at the Jorgensen Forge site, located adjacent to the north of the subject property. The current status of cleanup at this site is not known. Given that there is the potential for contaminants of concern at the Jorgensen site to migrate to the subject property via groundwater, this data gap is considered to be significant in evaluating current conditions at the subject property.

Landau Associates conducted a Phase II ESA in accordance with the work plan (Landau Associates 2009) to document current conditions at the subject property and further assess the potential for conditions of environmental concern. The sampling locations and test parameters for the Phase II ESA were selected based on the findings of the Phase I ESA. At the request of Boeing, in addition to the proposed test parameters, selected soil and groundwater samples were analyzed for semivolatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs), which were identified as chemicals of concern by the Washington State Department of Ecology (Ecology) in the Source Control Action Plan (SCAP) for Early Action Area-6 (EAA-6), which includes the subject property (Ecology 2008). The following sections describe the field investigation and present the investigation results.

## **2.0 FIELD INVESTIGATION**

The soil and groundwater investigation was conducted at the subject property February 2 through February 4, 2009. The following sections summarize field activities associated with soil and groundwater sampling. Specific information regarding field procedures and sampling methodology is presented in the work plan, which is included as Appendix A.

### **2.1 SOIL AND GROUNDWATER INVESTIGATION**

The soil and groundwater investigation included 15 direct-push borings located in areas of potential concern identified in the Phase I ESA. The sampling locations are shown on Figure 2. Twenty-eight (28) soil and 10 groundwater samples were collected from the subject property for analysis by Analytical Resources, Inc. laboratory in Tukwila, Washington. The sampling areas are described in the following sections. Laboratory analytical methods are listed in Tables 1 through 5, along with the analytical data for soil and groundwater.

Boeing requested that Landau Associates complete a round of groundwater sampling from existing wells on the subject property and the adjacent Boeing Thompson property. The sampling was completed in February 2009 as described in Section 2.1.4.

#### **2.1.1 AREA NEAR MONITORING WELL I-104 (SOURCE INVESTIGATION)**

Six soil borings were advanced in the area of existing monitoring well I-104 (IDP-1/IDP-1A to IDP-6/IDP-6A). In accordance with the work plan, soil borings in this area were advanced to a depth of approximately 15 ft below ground surface (BGS).

Three soil samples and one groundwater sample were collected from each of the six direct-push borings in this area. An additional soil sample was collected from location IDP-6/IDP-6A as described below. Indications of impact were not observed during field screening; therefore, in accordance with the work plan, soil samples were collected from the 0 ft to 5 ft BGS interval, from the 6 ft to 10 ft BGS interval, and from the 11 ft to 15 ft BGS interval.

Refusal was encountered at several locations in this area; however, the driller was able to step out and complete a second boring to the planned depth. At locations where refusal was encountered at a depth of less than 4 ft BGS, no samples were collected and the boring was relocated. Refusal was encountered at boring IDP-1 at a depth of 7 ft BGS; therefore, the driller stepped out approximately 1 ft and completed boring IDP-1A to the planned depth of 15 ft BGS. At boring IDP-6, a sufficient quantity of soil was not collected from the 0 ft to 5 ft depth interval for analysis of the EAA-6 parameters;

therefore, boring IDP-6A was advanced within 2 ft of IDP-6 to a depth of 4 ft BGS in order to collect an additional soil sample from within the 0 ft to 5 ft interval.

All soil and groundwater samples collected from borings in this area were analyzed for arsenic. In addition, soil samples collected from boring IDP-6/IDP-6A were analyzed for metals, SVOCs, and PCBs.

### **2.1.2 NORTHERN BOUNDARY OF FORMER SLIP 5 (MINERALIZED CELL WOOD PRESERVING COMPANY)**

Four soil borings (IDP-7 to IDP-10) were advanced along the estimated northern boundary of former Slip 5. Soil samples were collected from each of the direct-push borings in this area and groundwater samples were collected from IDP-8 and IDP-9. Soil borings in this area were advanced to a depth of approximately 16 ft BGS. Indications of impact were not observed during field screening; therefore, in accordance with the work plan, soil samples were collected from the 0 ft to 4 ft BGS interval.

Soil and groundwater samples collected from borings in this area were analyzed for VOCs, TPH, and metals. In addition, the soil and groundwater samples collected from IDP-8 and IDP-9 were analyzed for SVOCs, cPAHs (groundwater samples only), and PCBs.

### **2.1.3 NORTHERN PROPERTY BOUNDARY**

Five soil borings (IDP-11 to IDP-15) were advanced along the northern boundary of the subject property. Soil samples were collected from each of the direct-push borings in this area and groundwater samples were collected from IDP-12 and IDP-14. Soil borings in this area were advanced to a depth of approximately 16 ft BGS. Indications of impact were not observed during field screening, therefore, in accordance with the work plan, soil samples were collected from the capillary fringe zone, approximately 6 inches above the top of the water table.

Soil and groundwater samples collected from borings in this area were analyzed for VOCs, TPH, and metals. In addition, the soil and groundwater samples collected from IDP-12 and IDP-14 were analyzed for SVOCs, cPAHs (groundwater samples only), and PCBs.

### **2.1.4 GROUNDWATER SAMPLES FROM EXISTING MONITORING WELLS**

Groundwater samples were collected from seven existing monitoring wells on or near the subject property (I-104, I-200, I-203, PZ-1, PZ-3, PZ-6, and PZ-7). Samples were collected in accordance with the work plan using low-flow sampling methodologies. Groundwater samples collected from existing monitoring wells were analyzed for VOCs, TPH, metals, SVOCs, cPAHs, and PCBs.

### **3.0 INVESTIGATION RESULTS**

In order to evaluate soil and groundwater quality at the subject property, physical observations of the soil and groundwater encountered during exploration were documented and soil from each exploration was screened for VOCs using a photoionization detector (PID). In addition, soil samples from each direct-push boring location and groundwater samples from selected locations were submitted to Analytical Resources, Inc. laboratory for chemical analysis. This section presents the results of the physical observations and chemical analyses.

#### **3.1 PHYSICAL OBSERVATIONS AND FIELD-SCREENING RESULTS**

Physical observations were documented by Landau Associates personnel during the soil and groundwater investigation. Observations included soil lithology, depth to groundwater, presence of sheen on the soil or at the water table, odor, and visible soil staining. In addition, soil samples were screened for VOCs using a PID. These observations are documented in the soil boring logs presented in Appendix B and summarized below.

##### **3.1.1 SOIL LITHOLOGY AND DEPTH TO GROUNDWATER**

The 15 soil borings advanced at the subject property generally encountered brown fine to coarse sand, underlain by brown, silty fine sand, underlain by gray fine to medium sand with silt. Generally, fill material (including debris in some locations) was encountered from the surface to depths ranging from 4 ft to 12 ft BGS and was underlain by native material, which was generally characterized by smaller grain-sized sand and a higher silt content than the fill material. The following observations were made during the soil and groundwater investigation:

- One or more layers of crushed rock were observed in each of the soil borings (except IDP-11 and IDP-14) at depths ranging from 1.5 ft to 12 ft BGS. The layers were approximately 6 inches or less in thickness.
- Wood debris was encountered at depths ranging from 7 ft to 9 ft BGS in borings IDP-3, -4, -7, -14, and -15.
- Metal slag material was observed in boring IDP-2 at a depth of 3 ft BGS.
- A layer of organic matter was encountered at depths ranging from 5.5 ft to 7 ft BGS in borings IDP-8 and IDP-14.
- Groundwater was encountered during drilling at depths ranging between 11 ft and 14 ft BGS.

### **3.1.2 PRESENCE OF SHEEN, ODOR, AND/OR STAINING**

Visual or olfactory evidence of contamination was not observed in any of the samples retrieved from the 15 soil borings. An odor of decomposing organic material was noted in soil samples retrieved from IDP-3 (5 ft to 13 ft BGS).

### **3.1.3 FIELD-SCREENING RESULTS**

Soil from each 5-ft sample interval from each boring was screened using a PID. PID readings were 1 part per million (ppm) or less and did not indicate the presence of significant volatile organic material.

## **3.2 ANALYTICAL RESULTS**

Laboratory analytical reports are provided in Appendix C. The laboratory data were validated in accordance with the work plan (Landau Associates 2009) and were determined to be acceptable for use. The soil and groundwater analytical results for detected compounds are presented in Tables 1 through 5. Cleanup levels have not been developed for the Isaacson property. To provide context for evaluation of the analytical results, the results were compared to standard Washington State Model Toxics Control Act (MTCA) Method C formula values for direct human contact (soil only); MTCA Method B (groundwater) and Method C (soil) levels for protection of fresh surface water and for protection of marine surface water; and PACCAR Potential Cleanup Standards proposed by PACCAR in its Interim Action Work Plan (AMEC 2008), for the adjacent property to the south of the Thompson property. The most stringent of these values for the constituents detected at the Isaacson property, usually those for protection of fresh surface water, are used as screening levels for comparison with the analytical results. The results of the soil and groundwater investigation are discussed by area in the following sections.

### **3.2.1 AREA NEAR MONITORING WELL I-104**

Soil analytical results for this area are presented in Tables 1 (arsenic) and 2 (other chemicals of concern). Groundwater analytical results for this area are presented in Table 3 (arsenic) and Table 4 (other chemicals of concern). Analytical results for this area are summarized as follows:

- Arsenic was detected at concentrations greater than the screening level [7 milligrams per kilogram (mg/kg)] in 11 of the 19 soil samples collected from the area of monitoring well I-104. The detected concentrations range from 9 mg/kg to 333 mg/kg. The highest concentrations of arsenic were detected in the 8 ft to 9 ft BGS interval at all locations except IDP-2, where the highest concentration was detected at a depth of 4 ft BGS. Arsenic was not

detected in any of the 11 ft to 14 ft BGS interval samples except at IDP-1/IDP-1A, where arsenic was detected at a concentration of 9 mg/kg in the sample collected from 14 ft BGS.

- Dissolved arsenic was detected at concentrations greater than the screening level [8 micrograms per liter ( $\mu\text{g/L}$ )] in each of the six groundwater samples collected from the area of monitoring well I-104 (Figure 3). The detected concentrations ranged from 12.0  $\mu\text{g/L}$  to 2,360  $\mu\text{g/L}$ . The highest concentrations were detected in samples collected from IDP-4 (2,360  $\mu\text{g/L}$ ) and IDP-5 (1,610  $\mu\text{g/L}$ ) located to the northeast and southeast of I-104, respectively, which indicates a source located generally to the east of this area.
- Zinc was detected at concentrations greater than the screening level (86 mg/kg) in soil samples collected from IDP-6/IDP-6A at a depth of 8 ft BGS (153 mg/kg). Zinc was detected at concentrations of 20 mg/kg and 68 mg/kg, which are below the screening level, in the samples collected from 12 ft BGS and 3 ft BGS at this location.
- Chromium, copper, lead, and mercury were detected in soil at concentrations above the reporting limits but below the screening level in one or more samples from IDP-6/IDP-6A.
- No other chemicals of concern (SVOCs and PCBs) were detected at concentrations greater than the laboratory reporting limits in soil samples collected from IDP-6/IDP-6A.
- Analytical results for the groundwater sample collected from I-104 are discussed in Section 3.2.4.

### **3.2.2 NORTHERN BOUNDARY OF FORMER SLIP 5 (MINERALIZED CELL WOOD PRESERVING COMPANY)**

Analytical results for this area are summarized as follows:

- Arsenic (23 mg/kg to 32 mg/kg), copper (55.6 mg/kg to an estimated 177 mg/kg), lead (112 mg/kg to 420 mg/kg), mercury (0.15 mg/kg to an estimated 0.52 mg/kg), and zinc (89 mg/kg to an estimated 1,390 mg/kg) were detected in soil samples collected from this area at concentrations greater than the screening levels. The highest concentrations of metals were detected in the soil sample collected from IDP-7 and concentrations generally show a decreasing pattern toward the east. Note that the detected concentrations of lead and mercury are less than the MTCA Method A cleanup levels for industrial properties. Cadmium and chromium were detected in soil samples from this area at concentrations below the screening levels.
- Arsenic was detected in one of the two groundwater samples collected from this area (IDP-8) at a concentration of 13,600  $\mu\text{g/L}$ , which is greater than the screening level (8  $\mu\text{g/L}$ ). Arsenic was not detected at a concentration greater than the laboratory reporting limit in the sample collected from IDP-9, located east of IDP-8. No other metals were detected at concentrations greater than the screening levels (or the laboratory reporting limits in most cases) in groundwater samples collected from this area.
- The VOC benzene [9.8 micrograms per kilogram ( $\mu\text{g/kg}$ )] was detected in the soil sample collected from IDP-9 at a concentration greater than the screening level (6.8  $\mu\text{g/kg}$ ).

- SVOCs and PCBs were not detected at concentrations greater than the laboratory reporting limits and petroleum hydrocarbons were not detected at concentrations greater than the screening levels in soil samples collected from this area.
- Vinyl chloride (0.2 µg/L) was detected at a concentration greater than the screening level (0.025 µg/L) in the groundwater sample collected from IDP-8. Vinyl chloride was not detected at a concentration greater than the laboratory reporting limits in the sample collected from IDP-9. No other VOCs were detected at concentrations greater than the screening levels in groundwater samples collected from this area.
- SVOCs (including cPAHs), PCBs, and petroleum hydrocarbons were not detected at concentrations greater than the laboratory reporting limits in groundwater samples collected from this area.

### **3.2.3 NORTHERN PROPERTY BOUNDARY**

Analytical results for this area are summarized as follows:

- Arsenic (18 mg/kg to 274 mg/kg), copper (47.2 mg/kg to 624 mg/kg), and zinc (96 mg/kg to 354 mg/kg) were detected in soil samples collected from along the northern property boundary at concentrations greater than the screening levels. Mercury was detected in one soil sample collected from IDP-14 at a concentration of 0.21 mg/kg, which is greater than the screening level (0.1 mg/kg), but less than the MTCA Method A cleanup level for unrestricted land use and industrial properties (2 mg/kg).
- Arsenic was detected in the groundwater samples collected from IDP-12 (13.0 µg/L) and IDP-14 (16,600 µg/L) at concentrations greater than the screening level (8 µg/L). No other metals were detected in groundwater samples collected from this area at concentrations greater than the screening levels, or, in most cases, the laboratory detection limits.
- VOCs were detected in soil at concentrations greater than the laboratory reporting limits, but less than the screening levels. VOCs were not detected in groundwater samples collected from this area at concentrations greater than the laboratory reporting limits.
- SVOCs (including cPAHs), PCBs, and petroleum hydrocarbons were not detected in soil or groundwater samples collected from this area at concentrations greater than the laboratory reporting limits.

### **3.2.4 GROUNDWATER SAMPLES FROM EXISTING MONITORING WELLS**

Analytical results for groundwater samples collected from existing monitoring wells on or near the subject property are summarized as follows:

- Arsenic was detected in samples collected from each of the seven existing monitoring wells at concentrations ranging from 0.8 µg/L to 2,270 µg/L (Figure 3). Arsenic was detected at concentrations less than the screening levels in the samples collected from I-200 (0.8 µg/L), PZ-1 (7.1 µg/L), and PZ-7 (5.0 µg/L). The highest concentration of arsenic was detected in the sample collected from I-104 (2,270 µg/L), followed by the concentration in the sample collected from PZ-6 (505 µg/L). The wells are located near the western property boundary at the northern end of the Isaacson property and along the southern property boundary in the

western one-third of the subject property, respectively. Arsenic concentrations in groundwater are generally higher in the western half of the subject property than the eastern half.

- Zinc was detected in the sample collected from PZ-1 at a concentration of 240 µg/L, which is greater than the screening level (160 µg/L).
- Vinyl chloride was detected in the sample collected from I-104 at a concentration of 0.2 µg/L, which is greater than the screening level (0.025 µg/L). No other VOCs were detected at concentrations greater than the screening levels.
- SVOCs (including cPAHs), PCBs, and petroleum hydrocarbons were not detected in the groundwater samples collected from existing monitoring wells at concentrations greater than the laboratory reporting limits.

## 4.0 SUMMARY AND CONCLUSIONS

The objective of the Phase II investigation was to evaluate and document the soil and groundwater quality at the subject property as part of Boeing's risk management and due diligence activities. The sampling locations for the Phase II ESA were selected based on the findings of the Phase I ESA and a request from Boeing to collect groundwater samples from existing monitoring wells on the subject property and at the adjacent property to the south (Thompson property).

Fifteen soil borings were advanced at the subject property. Soil samples were collected from each of the soil borings and groundwater samples were collected from 10 of the 15 soil borings. Groundwater samples were also collected from seven existing monitoring wells at the subject property or near the southern boundary of the subject property. The results of the soil and groundwater investigation are summarized below by area:

- **Area Near Monitoring Well I-104:** An investigation was conducted in this area in an attempt to identify the source of the arsenic in groundwater. The highest concentrations of arsenic in soil and groundwater in this investigation were detected in samples collected northeast and southeast of well I-104. The results of the investigation completed in the area immediately surrounding well I-104, combined with the analytical results for groundwater samples collected from I-104, IDP-8, and IDP-14, indicate the potential existence of an arsenic source east of monitoring well I-104, in the northwestern portion of the Isaacson site.

Zinc was detected in one soil sample collected from this area at a concentration greater than the screening level and was the only chemical of concern other than arsenic detected in soil at concentrations greater than the screening levels in this area. Groundwater samples collected from direct-push borings in this area were not analyzed for zinc; however, zinc was not detected at a concentration greater than the screening level in the groundwater sample collected from I-104.

- **Northern Boundary of Former Slip 5 (Mineralized Cell Wood Preserving Company):** Metals (arsenic, copper, lead, mercury, and zinc) were detected in soil samples collected from this area at concentrations greater than the screening levels. The highest concentrations of metals were detected in the soil sample collected from IDP-7 and concentrations generally show a decreasing pattern toward the east. Arsenic was the only metal detected in groundwater in this area at a concentration greater than the screening level. The detected concentrations of lead and mercury are less than the MTCA Method A cleanup levels for industrial properties. The presence of metals in soil and groundwater in this area may be the result of former operations of the Mineralized Cell Wood Preserving Company, which reportedly operated north of former Slip 5 and used arsenic, copper, and zinc in its wood treatment process.

The VOC benzene was detected in the soil in this area at a concentration greater than the screening level. Benzene was not detected in groundwater at concentrations greater than the laboratory reporting limits. The presence of benzene in soil may be the result of releases from historical underground storage tanks.

Vinyl chloride was detected in groundwater at a concentration greater than the screening level in one groundwater sample collected from this area. Vinyl chloride was not detected in soil samples collected from this area at a concentration greater than the laboratory reporting limit. The source of vinyl chloride in groundwater is not known.

- **Northern Property Boundary:** Metals (arsenic, copper, zinc, and mercury) were detected in soil samples collected from along the northern property boundary at concentrations greater than the screening levels. Only arsenic was detected in groundwater in this area at concentrations greater than the screening level. The detected concentrations of mercury are less than the MTCA Method A cleanup levels for unrestricted land use and industrial properties. The source of the metals impact is not known; however, as discussed previously, the presence of metals in soil and groundwater may be related to the former operations of the Mineralized Cell Wood Preserving Company.
- **Groundwater Samples from Existing Monitoring Wells:** Arsenic was detected in four of seven groundwater samples collected from existing monitoring wells at concentrations greater than the screening levels. The highest concentration of arsenic was detected in wells located near the western property boundary at the northern portion of the Isaacson property (I-104) and along the southern boundary in the western one third of the subject property (PZ-6), respectively. Arsenic concentrations in groundwater are generally higher in the western half of the subject property than in the eastern half.

Zinc was detected in one groundwater sample (PZ-1) and vinyl chloride was detected in one groundwater sample (I-104) at concentrations greater than the screening levels. The source of these constituents in groundwater is not known.

- **Property-Wide Groundwater:** The results of the groundwater sampling from existing monitoring wells, combined with the results of sampling from direct-push locations on the subject property (specifically, samples collected from IDP-8 and IDP-14), suggest a source of arsenic to groundwater may exist in the northwestern portion of the subject property.

Zinc was detected in one groundwater sample (PZ-1) at a concentration greater than the screening level. Zinc was detected at a concentration less than the screening level in the groundwater sample collected from IDP-12 and was not detected at concentrations greater than the laboratory reporting limits in groundwater samples collected from the remaining direct-push locations. A zinc source has not been identified at the subject property. Zinc was detected in each of the soil samples collected during this investigation (except IDP-11); however, the highest concentration of zinc was detected in the soil sample collected from IDP-7, located nearly 1,000 ft west of PZ-1.

Vinyl chloride was detected at concentrations greater than the screening levels in samples collected from monitoring well I-104 and IDP-8, both located in the western portion of the subject property. Vinyl chloride was not detected in soil at concentrations greater than the laboratory reporting limits. The source of vinyl chloride in groundwater is not known.

Impacts to soil by metals have been identified at the subject property. Metals (arsenic, copper, and zinc) were detected at concentrations greater than the screening levels at locations throughout the subject property. Detected concentrations were generally higher in the western half of the subject property than the eastern half. The detected concentrations of arsenic, copper, and zinc may be related to

the former operations of the Mineralized Cell Wood Preserving Company, which is believed to have operated on the subject property and reportedly used these metals in its wood treatment process. Lead and mercury were detected at concentrations greater than the screening levels in soil samples collected from along the estimated northern boundary of former Slip 5. The detected concentrations of lead and mercury are below the MTCA Method A cleanup levels for industrial properties. Benzene was detected at a concentration greater than the screening level in one soil sample collected from near the northern boundary of the former location of Slip 5. Benzene was not detected in groundwater at concentrations greater than the laboratory reporting limits. No other chemicals of concern (SVOCs, PCBs, petroleum hydrocarbons) were detected in soil at concentrations greater than the screening levels, or, in most cases, the laboratory reporting limits.

Impact to groundwater was identified at the subject property. Arsenic was detected in water samples collected from 9 of the 15 direct push borings and four of the seven existing monitoring wells at concentrations greater than the screening levels. Detected concentrations of arsenic in groundwater in the western portion of the subject property (north and south of the former stabilized soil mound) are more than 1,000 times greater than concentrations detected in samples collected from locations in the eastern half of the subject property, which indicates a potential source of arsenic in the western half of the subject property. Vinyl chloride was detected at a concentration greater than the screening level in one groundwater sample collected from a direct-push boring along the northern boundary of the former location of Slip 5, and in the sample collected from one existing groundwater monitoring well located in the northwestern portion of the subject property. Vinyl chloride was not detected in soil at concentrations greater than the laboratory reporting limits. Zinc was detected at a concentration greater than the screening level in one sample collected from the northeastern portion of the subject property (PZ-1). The source of the zinc is not known; however, zinc was detected in soil in this area at concentrations greater than the screening levels. No other chemicals of concern [SVOCs (including cPAHs), PCBs, petroleum hydrocarbons] were detected in groundwater samples from direct-push borings or existing monitoring wells at concentrations greater than the screening levels, or in most cases, the laboratory reporting limit.

## 5.0 USE OF THIS REPORT

This Phase II ESA Report has been prepared for the exclusive use of Boeing for specific application to the Isaacson property in Tukwila, Washington. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

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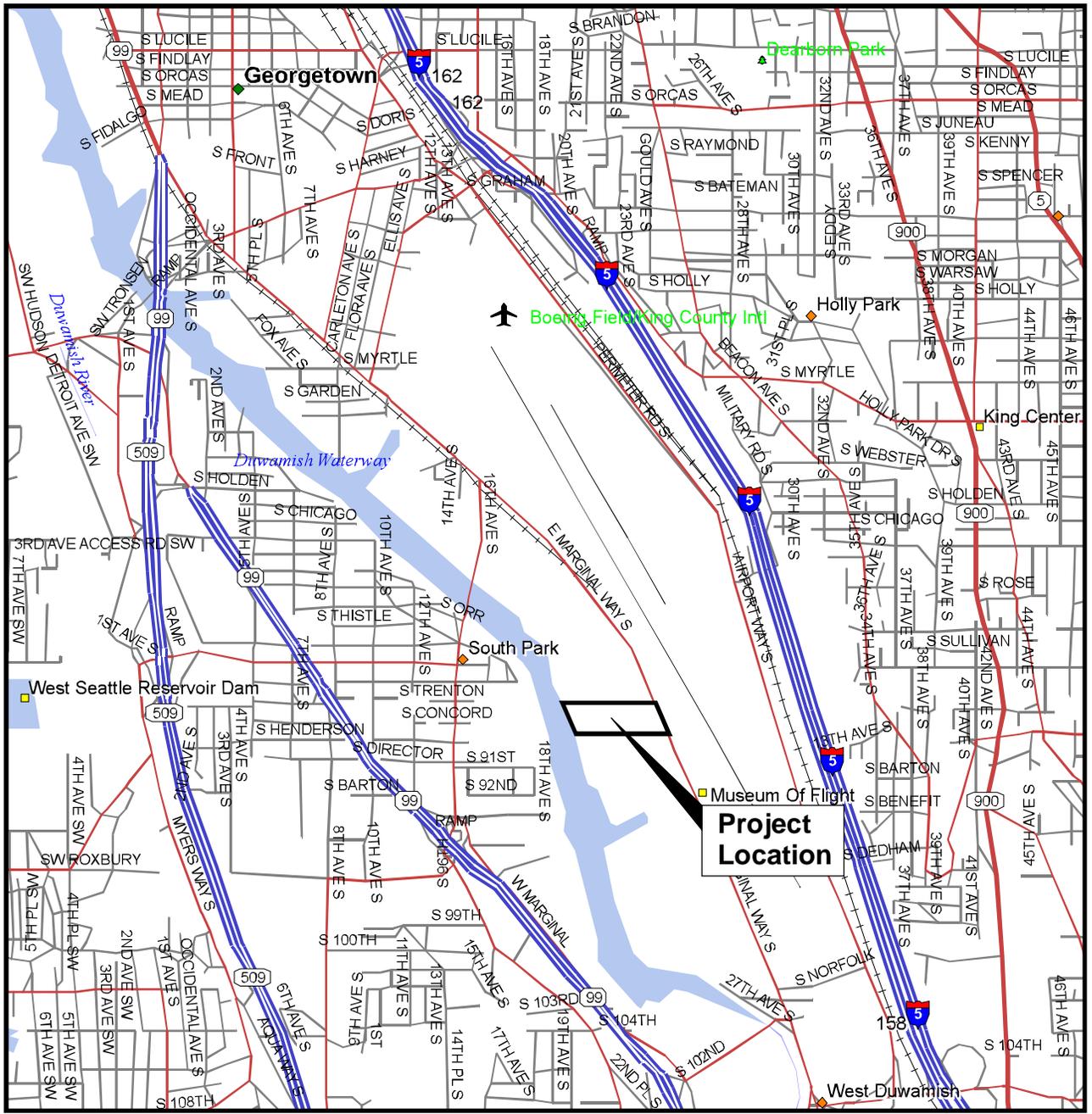
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Map from DeLorme Street Atlas USA, 2002

Boeing Isaacson Property | V:10251731061\DI\Fig1.cdr 4/10/2008



Boeing Isaacson Property  
Tukwila, Washington

Vicinity Map

Figure  
**1**



**Legend**

	Soil Sample Location		Existing Monitoring Well
	Soil and Groundwater Sample Location		Approximate Location of Former Slip 5

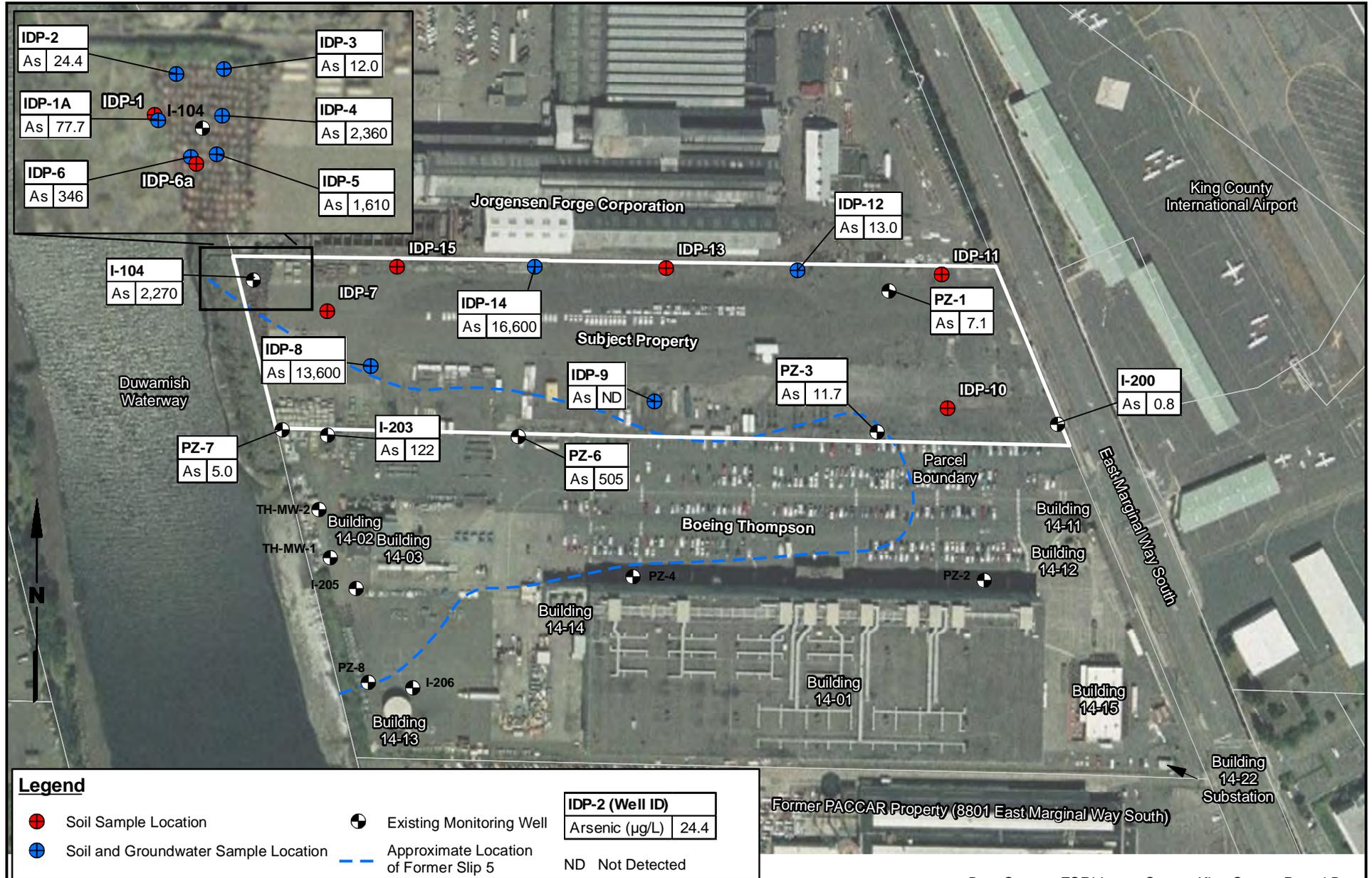
Data Source: ESRI Image Server, King County Parcel Data

Scale in Feet

Boeing Isaacson Property  
Tukwila, Washington

**Site and Phase II ESA  
Sample Location Plan**

Figure  
**2**



Data Source: ESRI Image Server, King County Parcel Data



**TABLE 1**  
**SUMMARY OF ARSENIC CONCENTRATIONS IN SOIL NEAR MONITORING WELL I-104**  
**BOEING ISAACSON PROPERTY**  
**TUKWILA, WASHINGTON**

**Preliminary Screening Levels**

PACCAR Interim Action Work Plan Cleanup Levels (a)	-
Method C Direct Contact	88
Method C Protection of Marine Surface Water	7 (b)
Method C Protection of Fresh Surface Water	7 (b)

**TOTAL METALS**  
**Method SW6000/7000 series**

Laboratory ID	Data Package	Date	Arsenic (mg/kg)
IDP-1-4'	OK85L	2/2/2009	<b>60</b>
IDP-1A-9'	OK85M	2/2/2009	<b>186</b>
IDP-1A-14'	OK85N	2/2/2009	<b>9</b>
IDP-2-4'	OK85O	2/2/2009	<b>180</b>
IDP-2-8'	OK85P	2/2/2009	6 U
IDP-2-11'	OK85Q	2/2/2009	6 U
IDP-3-4'	OK85R	2/2/2009	<b>34</b>
IDP-3-8'	OK85S	2/2/2009	<b>48</b>
IDP-3-11'	OK85T	2/2/2009	6 U
IDP-4-4'	OK85U	2/2/2009	<b>15</b>
IDP-4-8'	OK85V	2/2/2009	<b>17</b>
IDP-4-11'	OK85W	2/2/2009	6 U
IDP-5-4'	OK85X	2/2/2009	60 U
IDP-5-8'	OK85Y	2/2/2009	<b>333</b>
IDP-5-11'	OK85Z	2/2/2009	5 U
IDP-6-4'	OK85AA	2/2/2009	10 U
IDP-6-8'	OK85AB	2/2/2009	<b>71</b>
IDP-6-12'	OK85AC	2/2/2009	5 U
IDP-6A-3	OL03J	2/2/2009	<b>14</b>

Bold indicates detected constituent.

Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.

U = Indicates the compound was undetected at the reported concentration.

(a) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan (AMEC 2008).

(b) = Statewide background concentration (Ecology 1994).

**TABLE 2  
SUMMARY OF CONSTITUENTS DETECTED IN SOIL  
BOEING ISAACSON PROPERTY  
TUKWILA, WASHINGTON**

	Preliminary Screening Levels			Locations Near Monitoring Well I-104			Locations Near Estimated Northern Boundary of Former Slip 5				Locations Along Northern Property Boundary					
	PACCAR Interim Action Work Plan Cleanup Levels (a)	Method C Direct Contact	Method C Protection of Marine Surface Water	Method C Protection of Fresh Surface Water	IDP-6-8' OK85AB 2/2/2009	IDP-6-12' OK85AC 2/2/2009	IDP-6A-3 OL03J 2/3/2009	IDP-7-3 OL03A 2/3/2009	IDP-8-3 OL03B 2/3/2009	IDP-9-3 OL03C 2/3/2009	IDP-10-2 OL03D/OL61A 2/3/2009	IDP-11-11 OL03E 2/3/2009	IDP-12-12 OL03F 2/3/2009	IDP-13-12 OL03G 2/3/2009	IDP-14-11 OL03H 2/3/2009	IDP-15-12 OL03I 2/3/2009
<b>TOTAL METALS (mg/kg)</b>																
<b>Method SW6000/7000 series</b>																
Arsenic		88	7 (b)	7 (b)	<b>71</b>	5 U	<b>14</b>	50 U	<b>32</b>	<b>30</b>	<b>23</b>	6 U	<b>204</b>	<b>18</b>	<b>220</b>	<b>274</b>
Cadmium		3,500	1.2	1 (b)	0.3 U	0.2 U	0.2 U	4	<b>0.4</b>	<b>0.6</b>	<b>0.6</b>	0.2 U	0.3 U	0.3 U	0.2 U	0.3 U
Chromium		1,000,000 (c) (e)	1,000,000 (e)	2,000	<b>19.2</b>	<b>9.0</b>	<b>52.0</b>	<b>262</b>	<b>36.9</b>	<b>58</b>	<b>16.2</b>	<b>11.8</b>	<b>16.3</b>	<b>23.5</b>	<b>15.4</b>	<b>17.3</b>
Copper	129,500 / 19.6	130,000	36 (b)	36 (b)	<b>26.9</b>	<b>9.1</b>	<b>20.8</b>	<b>177</b> J	<b>27.4</b>	<b>93.2</b>	<b>55.6</b>	<b>13.5</b>	<b>163</b>	<b>131</b>	<b>624</b>	<b>47.2</b>
Lead	1,000 / 812	1,000 (a)	1,600	110	<b>3</b>	2 U	<b>27</b>	<b>420</b>	<b>27</b>	<b>112</b>	<b>59</b>	2 U	<b>4</b>	<b>4</b>	<b>6</b>	<b>5</b>
Mercury		1100	0.1 (b)	0.1 (b)	<b>0.06</b>	0.05 U	0.05 U	<b>0.52</b> J	<b>0.08</b>	<b>0.18</b>	<b>0.15</b>	0.05 U	<b>0.06</b>	<b>0.08</b>	<b>0.21</b>	<b>0.06</b>
Zinc		1,000,000 (e)	100	86 (b)	<b>153</b>	<b>20</b>	<b>68</b>	<b>1,390</b> J	<b>89</b>	<b>267</b>	<b>220</b>	<b>35</b>	<b>354</b>	<b>97</b>	<b>77</b>	<b>96</b>
<b>VOLATILES (µg/kg)</b>																
<b>Method SW8260B</b>																
Methylene Chloride		18,000,000	2,600	20				<b>4.3</b>	1.3 U	<b>2.8</b>	<b>1.7</b>	<b>2.0</b>	<b>1.7</b>	1.5 U	<b>3.4</b>	<b>2.2</b>
Acetone		350,000,000	-	3,200				<b>150</b>	<b>15</b>	<b>57</b>	<b>39</b>	<b>31</b>	<b>21</b>	<b>38</b>	<b>30</b>	<b>58</b>
Carbon Disulfide		350,000,000	-	5,600				<b>2.2</b>	0.6 U	1.3 U	0.8 U	0.8 U	0.6 U	0.8 U	0.9 U	<b>2.6</b>
2-Butanone		1,000,000,000 (e)	-	19,600				<b>13</b>	3.2 U	6.6 U	3.9 U	4.0 U	3.0 U	3.8 U	4.3 U	<b>7.4</b>
Trichloroethene		1,100,000	200	16				<b>1.6</b>	0.6 U	1.3 U	0.8 U	0.8 U	0.6 U	0.8 U	0.9 U	0.6 U
Benzene		2,400,000	290	6.8				<b>2.7</b>	0.6 U	<b>9.8</b>	0.8 U	<b>0.9</b>	0.6 U	0.8 U	<b>0.9</b>	<b>0.7</b>
Toluene		280,000,000	109,000	4,600				<b>1.7</b>	0.6 U	<b>17</b>	0.8 U	0.8 U	0.6 U	0.8 U	0.9 U	0.6 U
Total Xylenes		700,000,000	-	-				ND	ND	<b>22.7</b>	ND	ND	ND	ND	ND	ND
Methyl Iodide		-	-	-				1.1 U	0.6 U	1.3 U	0.8 U	0.8 U	0.6 U	0.8 U	<b>3.2</b>	0.6 U
<b>NWTPH-Dx</b>																
Diesel Range Organics		2000 (d)	2000 (d)	2000 (d)							<b>20</b>					
Oil-Range Organics		2000 (d)	2000 (d)	2000 (d)							<b>150</b>					

Bold indicates detected constituent.  
 Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.  
 U = Indicates the compound was undetected at the reported concentration.  
 UJ = The analyte was not detected in the sample; the reported sample detection limit is an estimate.  
 J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.  
 NA = Not Analyzed.  
 ND = Not Detected  
 (a) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan (AMEC 2008). The first number is Method C Ingestion (Method A Industrial for lead). The second number is Soil to Water Partition Calculation.  
 (b) = Statewide background concentration (Ecology 1994).  
 (c) = Value listed is for chromium III.  
 (d) = MTCA Method A cleanup level for industrial properties.  
 (e) = Screening level adjusted to 100% (1,000,000 mg/kg or 1,000,000,000 µg/kg)

**TABLE 3**  
**SUMMARY OF ARSENIC CONCENTRATIONS IN GROUNDWATER NEAR MONITORING WELL I-104**  
**BOEING ISAACSON PROPERTY**  
**TUKWILA, WASHINGTON**

	Preliminary Screening Levels			IDP-1A OK85E 2/2/2009	IDP-2 OK85F 2/2/2009	IDP-3 OK85G 2/2/2009	IDP-4 OK85H 2/2/2009	IDP-5 OK85I 2/2/2009	IDP-6 OK85J 2/2/2009
	PACCAR Interim Action Work Plan Cleanup Levels (a)	Method B Protection of Marine Surface Water	Method B Protection of Fresh Surface Water						
<b>DISSOLVED METALS (µg/L)</b> <b>Method 200.8/6010B/7470A</b>									
Arsenic	-	8 (b)	8 (b)	<b>77.7</b>	<b>24.4</b>	<b>12.0</b>	<b>2,360</b>	<b>1,610</b>	<b>346</b>

Bold indicates detected constituent.

Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.

(a) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan (AMEC 2008).

(b) = Statewide background concentration (PTI 1989).

**TABLE 4**  
**SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER - DIRECT- PUSH BORINGS**  
**BOEING ISAACSON PROPERTY**  
**TUKWILA, WASHINGTON**

	PACCAR Interim Action Work Plan Cleanup Levels (a)	Method B Protection of Marine Surface Water	Method B Protection of Fresh Surface Water	North of Forner Slip 5		Northern Property Boundary	
				IDP-8 OL03K 2/3/2009	IDP-9 OL03L 2/3/2009	IDP-12 OL03M 2/3/2009	IDP-14 OL03N 2/3/2009
				<b>DISSOLVED METALS (µg/L)</b> <b>Method 200.8/6010B/7470A</b>			
Arsenic		8 (b)	8 (b)	<b>13,600</b>	0.5 U	<b>13.0</b>	<b>16,600</b>
Copper		20 (b)	20 (b)	10 U	<b>6</b>	<b>6</b>	<b>20</b>
Lead		10 (b)	10 (b)	<b>1</b>	1 U	1 U	1 U
Zinc		160 (b)	160 (b)	50 U	10 U	<b>40</b>	50 U
<b>VOLATILES (µg/L)</b> <b>Method SW8260B</b>							
Vinyl Chloride	2.4	2.4	0.025	<b>0.2</b>	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	80		70	<b>0.5</b>	0.2 U	0.2 U	0.2 U

Bold indicates detected constituent.

Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.

U = Indicates the compound was undetected at the reported concentration.

(a) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan (AMEC 2008).

(b) = Statewide background concentration (PTI 1989).

**TABLE 5**  
**SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER - EXISTING MONITORING WELLS**  
**BOEING ISAACSON PROPERTY**  
**TUKWILA, WASHINGTON**

	PACCAR Interim Action Work Plan Cleanup Levels (a)	Method B Protection of Marine Surface Water	Method B Protection of Fresh Surface Water	Dup of I-104							
				I-104 OK85B 2/2/2009	I-1044 OK85D 2/2/2009	I-200 OL24C 2/4/2009	I-203 OL19F 2/4/2009	PZ-1 OK85C 2/2/2009	PZ-3 OL24B 2/4/2009	PZ-6 OL24A 2/4/2009	PZ-7 OK85A 2/2/2009
<b>DISSOLVED METALS (µg/L)</b>											
<b>Method 200.8/6010B/7470A</b>											
Arsenic		8 (b)	8 (b)	<b>2,130</b>	<b>2,270</b>	0.8	<b>122</b>	7.1	<b>11.7</b>	<b>505</b>	5.0
Copper		20 (b)	20 (b)	13 J	7 J	2 U	2 U	17	2 U	2 U	2 U
Zinc		160 (b)	160 (b)	13 J	10 U	10 U	10 U	<b>240</b>	10	10 U	10 U
<b>VOLATILES (µg/L)</b>											
<b>Method SW8260B</b>											
Vinyl Chloride	2.4	2.4	0.025	<b>0.2</b>	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone			800	<b>3.7</b>	<b>3.4</b>	<b>11</b>	<b>3.1</b>	3.0 U	<b>7.1</b>	<b>3.9</b>	<b>4.8</b>
Carbon Disulfide			800	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	<b>0.2</b>	0.2 U
1,1-Dichloroethane			1600	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene		10000	100	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	80		70	0.2 U	0.2 U	0.2 U	<b>1.3</b>	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane		15	0.50	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

Bold indicates detected constituent.

Boxed values indicate exceedance of the Method C protection of fresh surface water screening levels.

U = Indicates the compound was undetected at the reported concentration.

UJ = The analyte was not detected in the sample; the reported sample detection limit is an estimate.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

(a) = Potential cleanup levels identified in PACCAR 2008 Interim Action Work Plan (AMEC 2008).

(b) = Statewide background concentration (PTI 1989).

# **Focused Phase II Soil and Groundwater Investigation Work Plan**

**Work Plan  
Focused Phase II  
Soil and Groundwater Investigation  
Boeing Isaacson Property  
Tukwila, Washington**

January 23, 2009

Prepared for

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## 1.0 INTRODUCTION

This document presents a work plan to conduct a focused Phase II soil and groundwater investigation at The Boeing Company (Boeing) Isaacson property (subject property) located on East Marginal Way South in the City of Tukwila, King County, Washington (Figure 1). The subject property is currently owned by Boeing. There are no structures present on the subject property and the property is currently used for limited storage by Boeing. In December 2008, Boeing completed a grading project to remove an asphalt-paved mound in the north-central portion of the subject property that resulted from a soil stabilization project completed at the subject property in 1991. A site plan is provided as Figure 2.

The purpose of this investigation is to evaluate and document the soil and groundwater quality at the subject property as part of Boeing's risk management and due diligence activities. The areas of potential concern were identified as part of Boeing's Environment, Health, and Safety (EHS) property assessment process, and specifically in the Phase I environmental site assessment (ESA) previously conducted for the subject property (Landau Associates 2008<sup>1</sup>). The Phase I ESA identified environmental conditions at the subject property, based on historical operations, previous investigations, or observations of site conditions, that are considered to pose a potential liability to Boeing as owner of the property. The results of this Phase II investigation will be used to evaluate potential impacts to soil or groundwater at the subject property, and the need for additional action, if appropriate.

### 1.1 BACKGROUND

Landau Associates conducted a Phase I ESA at the subject property for Boeing. The Phase I ESA included a review of historical environmental documentation for the subject property, and observation of current conditions at the subject property on January 31, 2008 and April 21, 2008. The Phase I ESA identified the following *recognized environmental conditions* at the subject property that were considered to pose a potential liability to Boeing:

- Arsenic was detected in soil and groundwater at the subject property at concentrations greater than the Washington State Model Toxics Control Act (MTCA) cleanup levels during previous investigations. Arsenic was detected in groundwater at the subject property at concentrations ranging from 0.7 micrograms per liter ( $\mu\text{g/L}$ ) to 3,640  $\mu\text{g/L}$  during the most recently sampling event in 2008, with the highest concentration detected in the northwestern portion of the subject property. The highest detected concentration of arsenic in soil at the subject property (outside of the areas where excavations have subsequently occurred) is 3,500 milligrams per kilogram (mg/kg), which was detected in a sample collected in 1988 from along the northern boundary of the stabilized soil excavation. The presence of arsenic in soil

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<sup>1</sup> Landau Associates. 2008. Report: *Environment, Health, and Safety Assessment / Phase I Environmental Site Assessment Boeing Isaacson Property, Tukwila, Washington*. Prepared for the Boeing Company. September 15.

and groundwater from the subject property at concentrations greater than MTCA cleanup levels is a *recognized environmental condition*.

- Based on previous subsurface investigations at the subject property, fill material within the former Slip 5 area includes bricks, wood debris, and slag material. Debris within the fill material is a potential source of impact to subsurface soil and groundwater at the subject property. Metals have been detected in the fill material at concentrations greater than the MTCA Method A cleanup levels. The presence of metals at concentrations greater than the MTCA cleanup levels is a *recognized environmental condition*.
- Four diesel underground storage tanks (USTs), three sumps, and one heating oil tank were formerly in operation on the subject property. The tanks were reportedly located on the northern and southern sides of the former 14-05 building and the sumps were located in the vicinity of the former 14-08 building, in the eastern portion of the subject property. Available records indicate that the tanks and sumps have been removed; however, there is no available information regarding the condition of the tanks or the surrounding subsurface soils. Due to the lack of data for confirmation soil samples, the former presence of petroleum USTs on the subject property is a *recognized environmental condition*.
- Historical records indicate that the Mineralized Cell Wood Preserving Company formerly operated on or in the vicinity of the subject property, north of the former location of Slip 5. The practice of this company involved heating a solution of arsenic and sulfate salts of copper and zinc and applying the solution to the base of logs under pressure. Storage tanks associated with this operation were reportedly cleaned twice per day and sludge and remaining chemicals in the tanks were drained directly to the ground surface. The release of arsenic and metals to the ground surface and its potential for impact to the subject property is a *recognized environmental condition*.

The Phase I ESA identified the following significant data gap:

- **Condition of soil and groundwater at Jorgensen Forge Corporation site.** Contaminants of concern have been identified in soil and groundwater at the Jorgensen Forge site, located adjacent to the north of the subject property. The current status of cleanup at this site is not known. Given that there is the potential for contaminants of concern at the Jorgensen site to migrate to the subject property via groundwater, this data gap is considered to be significant to evaluating current conditions at the subject property.

Boeing is conducting a Phase II ESA to document current conditions at the subject property and further assess the potential for conditions of environmental concern. The proposed sampling locations and test parameters for the Phase II ESA were selected based on the findings of the Phase I ESA. At the request of Boeing, in addition to the proposed test parameters, select soil and groundwater samples will be analyzed for the contaminants of concern identified by the Washington State Department of Ecology (Ecology) in the Source Control Action Plan (SCAP) for Early Action Area-6 (EAA-6), which includes the subject property.

## **1.2 OBJECTIVES**

Based on the findings of the Phase I ESA, the objectives for the focused Phase II investigation are to:

- Collect sufficient data to document and evaluate shallow soil and groundwater conditions in selected areas that were identified in the Phase I ESA as having the potential to have been impacted by historical onsite operations
- Assess the condition of soil and groundwater at the subject property in relation to the contaminants of concern that have been identified by Ecology for EAA-6.
- Assess the need for further action.

## **1.3 SCOPE OF WORK**

Samples of soil and groundwater will be collected for laboratory analysis for constituents of potential concern from the specific areas identified in the Phase I ESA, based on information regarding historical site operations. These areas for investigation will be referred to as the Phase II sampling areas, and consist of:

- Monitoring well I-104 (source investigation)
- Northern Property Boundary
- North of Former Slip 5 Boundary (Mineralized Cell Wood Preserving Company)
- Site-Wide Groundwater.

The Phase II sampling areas and sample locations are shown on Figure 2. The sampling and analytical strategies and procedures are outlined in Section 2.0.

## **2.0 SAMPLING AND ANALYSIS PLAN**

This section describes the sampling strategy and procedures (sample location, collection methods, and laboratory analyses) that will be used to evaluate potential impacts to soil and groundwater in the Phase II sampling areas. The data obtained will be used to assess the nature of impacts, if any, in the sampling areas, and whether further actions are needed. A summary of the number of soil and groundwater samples to be submitted for laboratory analyses and/or archiving, and the type of analyses to be performed on each sample is presented in Table 1.

### **2.1 SOIL SAMPLING**

Soil sample locations, collection methods, depth intervals, and nomenclature are described below.

#### **2.1.1 SOIL SAMPLE LOCATIONS**

As described in Section 1.3, specific soil sampling areas have been identified based on the Phase I ESA (Landau Associates 2008). These sampling areas include the area of monitoring well I-104, the northern property boundary, and the area north of the former Slip 5 boundary (Figure 2). Soil samples will be collected from 15 locations as shown in Table 1. The sampling locations were selected to collect representative soil samples in each sampling area. The specific sample locations planned for each Phase II sampling area are shown on Figure 2. Each sampling location will be documented in the field by taped measurements from a known reference point or by using Global Positioning System (GPS) equipment and will be marked with spray paint.

#### **2.1.2 SAMPLE COLLECTION METHODS**

Soil samples will be collected from direct-push borings. The borings will be accomplished using a truck-mounted, direct-push rig. Soil samples will be obtained from the soil borings using a sampling device with a 48-inch long, 1.5-inch inside-diameter (ID) core sampler. The sampler will be advanced over the desired depth interval, thereby coring the soil inside the sampler's disposable, single-use liner. The sampler will then be withdrawn to retrieve the liner and soil sample. The liner will be cut to remove the soil sample. A new liner will be placed in the core sampler and this process will be repeated until all desired soil samples have been obtained.

After the liner has been cut, soil samples will be field-screened for evidence of contamination by visual inspection (e.g., stained soil, free product) and measuring volatile vapors using a photoionization detector (PID). After the field-screening has been completed, the lithology of the soil sample will be

recorded on the Log of Exploration form. Soil samples from each boring will be selected for laboratory analysis. The samples will be selected from the intervals that indicate the highest likelihood for potential contamination based on field-screening results [i.e., visual presence of potential contamination and/or a PID measurement greater than 50 parts per million (ppm)]. In order to evaluate the vertical extent of impact, multiple samples may be selected from some borings. If field-screening results do not indicate the potential presence of contamination, then samples will be collected for laboratory analysis from depths where contamination would be anticipated based on historical site use, as described in Section 2.1.3. This may include collecting samples from the interval directly above the shallow groundwater level, or from below the invert depths of tanks, trenches, and/or piping in the area of investigation. Soil samples will be collected using methodology consistent with Ecology and U.S. Environmental Protection Agency (EPA) methods. Soil samples for analysis of volatile organic compounds (VOCs) will be collected using EPA Method 5035A.

Before and between drilling of each boring and at the completion of the project, downhole drilling equipment will be cleaned using a high-pressure hot water or steam washer, as described in Section 2.6.

### **2.1.3 SAMPLE DEPTH INTERVALS**

At each location, the soil borings will be advanced to a depth of approximately 16 ft below ground surface (BGS), based on the concern to be addressed and field observations, and as described as follows:

- **Monitoring well I-104:** Six direct-push borings will be advanced in the area of existing monitoring well I-104 where the highest concentrations of dissolved arsenic were detected in groundwater during the previous two sampling events. The borings will be advanced to approximately 2 ft below the top of the water table, which is anticipated to be at approximately 14 ft to 15 ft BGS in the area of well I-104. Three soil samples will be collected from each of the six locations. At each location, soil samples will be collected from the 0 ft to 5 ft BGS interval, from the 6 ft to 10 ft BGS interval, and from the 11 ft to 15 ft BGS interval.
- **Northern Property Boundary:** Five direct-push borings will be advanced along the northern boundary of the subject property, north of the former location of the stabilized soil mound, where the highest concentrations of arsenic were detected in soil during previous investigations (not including areas that were subsequently excavated and/or stabilized). These borings will also address potential impact from the Jorgensen Forge property located adjacent to the north of the subject property. The borings will be advanced to approximately 2 ft below the top of the water table, which is anticipated to be at approximately 12 to 15 ft BGS across the site. One soil sample will be collected from each of the five locations. If no indications of impact are observed during field screening, soil samples will be collected from the hydraulic fringe zone, from a 2-ft interval beginning approximately 1 ft above the top of the water table.

- North of Former Slip 5 Boundary: Four direct-push borings will be advanced along the northern boundary of the former location of Slip 5, in the area of possible Mineralized Cell Wood Preserving Company operations. The borings will be advanced to approximately 2 ft below the top of the water table, which is anticipated to be at approximately 12 to 15 ft BGS across the site. If no indications of impact are observed during field screening, soil samples will be collected from within the upper 4 ft to address surface releases.

#### **2.1.4 SAMPLE NOMENCLATURE**

Direct-push sample locations will be preceded with the prefix “IDP” (Isaacson Direct Push) and numerically sequenced starting with number 1. This information will be followed with the depth the sample was initiated (top of sample) and date of sampling (year/month/day format). As an example, if a soil sample is collected starting at a depth of 2 ft from soil boring IDP1 on February 5, 2009, the sample label would be as follows: IDP1-2'-090205.

### **2.2 GROUNDWATER SAMPLING**

Groundwater sample locations and collection methods to be used during this investigation are described below.

#### **2.2.1 SAMPLING LOCATIONS**

At 10 of the sample locations, a shallow groundwater sample will also be collected from the direct-push borings. In addition, seven groundwater samples will be collected from existing monitoring wells and piezometers located on the subject property. The groundwater sampling locations are shown on Figure 2. Note that three of the monitoring wells and/or piezometers (PZ-6, PZ-7, and I-203) appear to be located on the Boeing Thompson property; however, these wells have been included in the proposed sampling due to their proximity to the subject property.

#### **2.2.2 SAMPLE COLLECTION**

Groundwater samples will be collected by using the direct-push rig to push a decontaminated, shielded, temporary well screen to the target depth. For this investigation and based on an anticipated depth to water of 12 ft to 15 ft BGS, the top of the well screen will be located at approximately 11 ft to 14 ft BGS. The temporary well screens will be 4 ft long, 1 inch outer diameter (OD), 0.010-inch slot size, and made of stainless steel. Once the well screen has been advanced to the target depth, the protective shield will be withdrawn exposing the screen, and groundwater will be extracted using disposable polyethylene tubing and a peristaltic pump. The target screen depth will be adjusted, as appropriate,

based on the depth to water encountered in the field. Groundwater samples may also be collected using temporary 1-inch diameter PVC piping, rather than stainless steel well screens.

If possible, groundwater will be purged from the well screen until turbidity is low and successive measurements of pH, temperature, and conductivity agree to within 10 percent. The field parameters will be measured throughout the purge cycle. Field parameter readings will be recorded on a Groundwater Sample Collection form approximately every casing volume until at least three casing volumes have been purged and, if feasible, the groundwater is relatively non-turbid. If the field parameter readings collected after the second and third casing volumes are within 10 percent, sample collection will commence. If not, additional casing volumes will be purged until successive field parameter readings agree to within 10 percent, or until 10 casing volumes have been purged. If sample turbidity remains high after purging, a notation will be placed on the chain-of-custody (COC) form instructing the laboratory to allow the sample to remain undisturbed for at least 24 hours prior to extracting the sample and to extract only the clear portion of the sample from the top of the container for chemical analysis other than VOCs.

The groundwater samples will be collected using dedicated tubing. Sample bottles will be filled to minimize headspace. To prevent degassing during groundwater sample collection for VOC analysis, a pumping rate below 100 milliliters per minute (mL/min) will be maintained. Groundwater for dissolved metals analyses will be collected last and field-filtered through a 0.45 micron, in-line disposable filter. A note will be made on the sample collection form and COC form to indicate the sample has been field-filtered.

Before beginning drilling, between drilling of each boring, and at completion of the project, all downhole drilling equipment and sampling equipment will be cleaned using a high-pressure hot water or steam washer, as described in Section 2.6.

Samples collected from existing monitoring wells and piezometers will be collected using dedicated polyethylene tubing and a peristaltic pump. Low-flow groundwater sampling methodologies will be used (EPA 1996<sup>2</sup>).

### **2.2.3 SAMPLE NOMENCLATURE**

As with the soil samples, groundwater samples collected from direct-push sample locations will be preceded with the prefix “IDP” and numerically sequenced to correspond to the specific direct-push location. This information will be followed by “GW” (Groundwater) and the date of sampling (year/month/day format). As an example, if a groundwater sample is collected from direct-push location

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<sup>2</sup> EPA. 1996. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*. EPA/540/S-95/504. U.S. Environmental Protection Agency, Office of Research and Development, Office of Solid Waste and Emergency Response. Washington, D.C. April.

IDP1 on February 5, 2009, the sample label would be as follows: IDP1-GW-090205. Groundwater samples collected from existing monitoring wells will be labeled with the well number followed by the date (e.g., I-104-090128).

### **2.3 SAMPLE TRANSPORTATION AND HANDLING**

The transportation and handling of samples will be accomplished in a manner that protects the integrity of the sample and also prevents release of hazardous substances from the samples. Samples will be kept in coolers on ice until delivery to the analytical laboratory. All samples will be logged on a COC form. The COC form will accompany each shipment of samples to the laboratory. Samples will be delivered to the laboratory within 24 hours of sample collection.

### **2.4 SAMPLE CUSTODY AND DOCUMENTATION**

The primary objective of sample custody is to create an accurate, written record that can be used to trace the possession and handling of samples so that their quality and integrity can be maintained from collection until completion of all required analyses. Adequate sample custody will be achieved by means of approved field and analytical documentation. Such documentation includes the COC record that is initially completed by the sampler and is, thereafter, signed by those individuals who sequentially accept custody of the sample. A sample is in custody if at least one of the following is true:

- It is in someone's physical possession
- It is in someone's view
- It is secured in a locked container or otherwise sealed so that tampering will be evident
- It is kept in a secured area, restricted to authorized personnel only.

Sample control and COC protocols in the field and during transportation to the laboratory will be followed conducted in general conformance with the procedures described below:

- As few persons as possible will handle samples.
- Sample bottles will be obtained new or pre-cleaned from the laboratory performing the analyses.
- The sample collector will be personally responsible for the completion of the COC record and the care and custody of samples collected until the samples are transferred to another person or dispatched properly under COC protocols.
- The coolers in which the samples are shipped will be accompanied by the COC record identifying their contents. The original record and laboratory copy will accompany the

shipment (sealed inside the shipping container). The other copy will be forwarded to Landau Associates along with sample collection forms.

- Coolers will be sealed with strapping tape and custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information will be entered in the “remarks” section of the COC record.

When samples are transferred, the individuals relinquishing and receiving the samples will sign the COC form and record the date and time of transfer. The sample collector will sign the form in the first signature space. Each person taking custody will observe whether the shipping container is correctly sealed and in the same condition as noted by the previous custodian; deviations will be noted in the appropriate section of the COC record.

A designated sample custodian at the laboratory will accept custody of the shipped samples, verify the integrity of the custody seals, and certify that the sample identification numbers match those on the COC record. The custodian will then enter sample identification number data into a bound logbook, which is arranged by a project code and station number. If containers arrive with broken custody seals, the laboratory will note this on the COC record and will immediately notify the sampler and Landau Associates.

All documentation and other project records will be safeguarded to prevent loss, damage, or alteration. If an error is made on a document, corrections will be made by drawing a single line through the error and entering the correct information. The erroneous information will not be obliterated. Corrections will be initialed and dated and, if necessary, a footnote explaining the correction will be included. Errors will be corrected by the person who made the entry, whenever possible.

## **2.5 LABORATORY ANALYSES**

This section describes the laboratory analyses to be conducted on the soil and groundwater samples. Laboratory analyses will be performed by Analytical Resources, Inc. (ARI) located in Tukwila, Washington.

### **2.5.1 SOIL SAMPLES**

Soil samples collected from the area of monitoring well I-104 will be analyzed for total arsenic using EPA Method 6010B. Soil samples collected from the westernmost boring in the area of well I-104 and the remaining locations will be analyzed for total petroleum hydrocarbons (TPH) using the hydrocarbon identification method (NWTPH-HCID), total metals (arsenic, cadmium, chromium, copper, lead, mercury, and zinc) using EPA Methods 6010B and 7471, and volatile organic compounds (VOCs) using EPA Method 8260B. Follow-up analysis for gasoline-range and/or diesel-range petroleum

hydrocarbons may be conducted based on the HCID results. Follow-up analysis for hexavalent chromium may be conducted based on the total chromium results.

In addition to the constituents of concern identified for the subject property, select soil samples will be analyzed for the constituents of concern identified by Ecology for EAA-6 sediments. Soil samples collected from direct-push soil borings where water samples are planned (see Figure 2) will be analyzed for PCBs using EPA Method 8082, and semivolatile organic compounds [SVOCs; including polycyclic aromatic hydrocarbons (PAHs) and phthalates] using EPA Method 8270. The sample selection may be adjusted based on field conditions and discussions with Boeing.

With the exception of samples collected in the area of monitoring well I-104, if multiple samples are collected from a select location, initially only the sample collected from the interval that indicates the highest likelihood for potential contamination based on field-screening results will undergo laboratory analysis. The additional samples will be archived at the laboratory. Analysis of the additional soil samples will be determined based on field observations (e.g., odor, sheen, and PID readings) and analytical results for the initial soil samples and groundwater samples. A summary of the laboratory analyses to be performed on each soil sample is presented in Table 1. Soil sample analytical methods for each analyte are specified in Table 2.

## **2.5.2 GROUNDWATER SAMPLES**

In the area of well I-104, groundwater samples collected from the temporary well points will be analyzed for dissolved arsenic by EPA Method 200.8. At the remaining temporary well points, groundwater samples will be analyzed for TPH using the hydrocarbon identification method (NWTPH-HCID), dissolved metals (arsenic, cadmium, chromium, copper, lead, mercury, and zinc) by Methods 200.8, 6010B, and 7470A, and VOCs by Method 8260. Dissolved metals samples will be field-filtered by passing water through a 0.45-micron filter prior to filling the laboratory-supplied jars. Follow-up analysis for gasoline-range and/or diesel-range petroleum hydrocarbons may be conducted based on the HCID results. Follow-up analysis for hexavalent chromium may be conducted based on total chromium results. A summary of the laboratory analyses to be performed on each groundwater sample is presented in Table 1. Groundwater sample analytical methods for each analyte are specified in Table 2.

In addition to the constituents of concern identified for the subject property, groundwater samples collected from direct-push locations and the existing monitoring wells and piezometers will be analyzed for the constituents of concern identified by Ecology for EAA-6 sediments. Groundwater samples will be analyzed for PCBs using EPA Method 8082, SVOCs by EPA Method 8270, and carcinogenic PAHs (cPAHs) using EPA Method 8270-SIM. Groundwater samples collected from direct-push borings in the

area of monitoring well I-104 will not be analyzed for the EAA-6 parameters. The sample selection may be adjusted based on field conditions and discussions with Boeing.

## **2.6 EQUIPMENT DECONTAMINATION**

The decontamination procedures described below are to be used by field personnel to clean drilling, sampling, and related field equipment. Any deviation from these procedures will be documented in field records.

### **2.6.1 SAMPLING EQUIPMENT**

All sampling equipment (e.g., stainless steel bowls, stainless steel spoons, soil core samplers, etc.) will be cleaned using a three-step process, as follows:

1. Scrub surfaces of equipment that would be in contact with the sample with brushes using an Alconox solution.
2. Rinse and scrub equipment with clean tap water.
3. Rinse equipment a final time with de-ionized water to remove tap water impurities.

Decontamination of the reusable sampling equipment will occur between collection of each sample.

### **2.6.2 HEAVY EQUIPMENT**

Heavy equipment (e.g., the drilling rig, downhole drilling equipment, and any material or equipment going down a hole) will be cleaned by a hot water, high-pressure wash before each use and at completion of the project. Potable tap water will be used as the cleaning agent.

## **2.7 BORING ABANDONMENT AND PAVEMENT PATCHING**

Following soil and groundwater sampling, direct-push borings will be abandoned and pavement will be patched. The borehole will be abandoned by backfilling with bentonite chips to within approximately 1 ft of the surface. Paved areas will be patched with cold-patch asphalt or quick-set cement.

## **2.8 RESIDUAL WASTE MANAGEMENT**

Soil cuttings generated during boring advancement will be temporarily stored on site in 55-gal drums or rolloff containers at a location selected by Boeing. Purge water generated during groundwater

sampling will be temporarily stored on site in 55-gal drums. Under the direction of Boeing, samples of the waste material will be collected for waste characterization purposes. The appropriate disposal methods will be identified in discussions with Boeing personnel based on the analytical results for the soil and groundwater samples. Boeing will handle profiling and waste disposal.

## **2.9 UTILITY LOCATE**

Prior to initiation of the sampling activities, Landau Associates personnel will conduct a site reconnaissance with the Boeing facility contact to mark sampling locations, identify aboveground and belowground utilities, and discuss access issues. A private utility location professional will also participate in the site reconnaissance to aid in selection and clearing of sample locations. A public utility locate service will be contacted to locate underground utilities along East Marginal Way South to identify utilities that may service the site. The sampling locations will be adjusted as necessary based on access and utility considerations. The site reconnaissance and utility locate will be conducted at least one day prior to the scheduled drilling activities.

### 3.0 QUALITY ASSURANCE/QUALITY CONTROL

The soil analytical results must be accurate, precise, representative, complete, and comparable. Groundwater samples will rely on the same quality control parameters.

Accuracy of the data will be determined through recovery of spiked surrogates, matrix spikes, and spiked laboratory control samples. Control limits for spike recovery will be laboratory acceptance limits generated according to EPA guidelines. For each analysis of soil and groundwater samples, the following quality control samples will be collected to evaluate accuracy:

- **Laboratory Control Sample.** A minimum of one laboratory control sample per 20 samples, not including quality control samples, or one laboratory control sample per sample batch if fewer than 20 samples are obtained, will be analyzed for all parameters.

Other types of quality control samples that will be collected include the following field blanks:

- **Field trip blanks.** A water field trip blank will be provided by the laboratory with the sample containers and cooler, and will remain in the cooler throughout the sampling event and during sample transport to the laboratory. One trip blank per cooler containing samples for VOC analysis will be evaluated to determine possible sample contamination during transport.
- **Field duplicates.** A blind field duplicate will be collected at a frequency of at least one per 20 samples per chemical for groundwater. The blind field duplicate will consist of a split sample collected at a single sample location. Blind field duplicates will be collected by alternately filling sample containers for both the original and the corresponding duplicate sample at the same location to decrease variability between the duplicates. Blind field duplicate sample results will be used to evaluate data precision. No blind field duplicates will be submitted for soil.

Representativeness of the data will be optimized through appropriate selection of sampling locations and methods. Analyses will be performed within established holding times.

Completeness for the project will be established as the proportion of data generated that is determined to be valid. The data quality objective for completeness is 90 percent.

Comparability is an expression of the confidence with which one data set can be compared to another. For this project, standard methods, promulgated by EPA or Ecology where available, will be used. Data generated will be reported in units consistent with Ecology or EPA guidelines.

## **4.0 HEALTH AND SAFETY PLAN**

A project health and safety plan for implementation of field activities described in this work plan is provided as Appendix A. All Landau Associates employees will follow the procedures described in this plan. Landau Associates subcontractors will either adopt this plan or prepare their own plan that is at least as protective as this plan.

## 5.0 REPORTING

Analytical results will be validated for quality assurance purposes as described above. The results of the investigation, including a description of field activities, laboratory data, summary tables of the testing results, and a sample location figure will be presented in a report. The results will also be evaluated to assess the need for further investigative or cleanup actions, if appropriate. The results of the evaluation will be included in the report.

\* \* \* \* \*

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

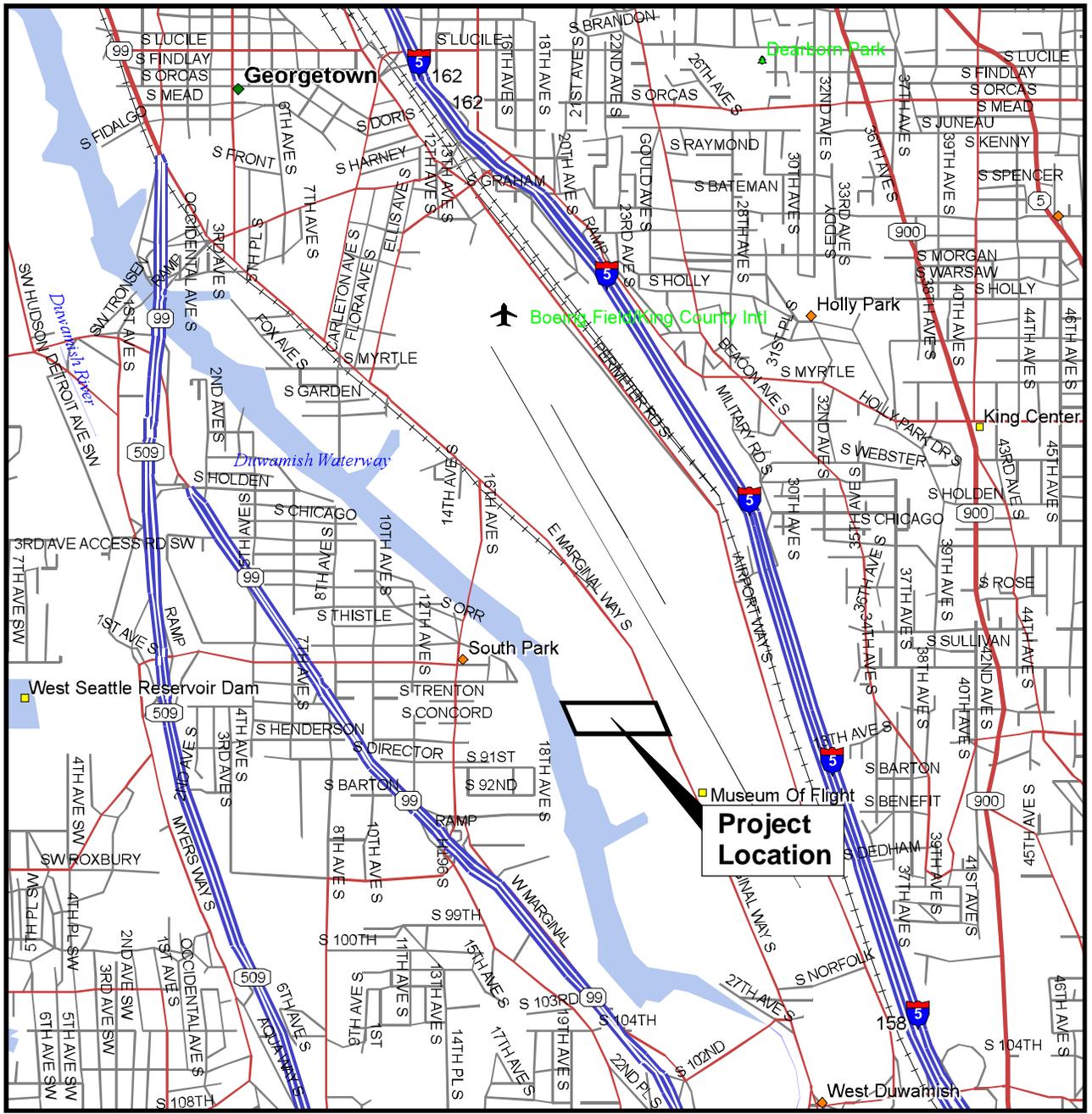


Kathryn F. Hartley  
Project Scientist



Kristy J. Hendrickson, P.E.  
Principal

KFH/KJH/ccy



Map from DeLorme Street Atlas USA, 2002

Boeing Isaacson Property | V:10251731061\DI\Fig1.cdr 4/10/2008



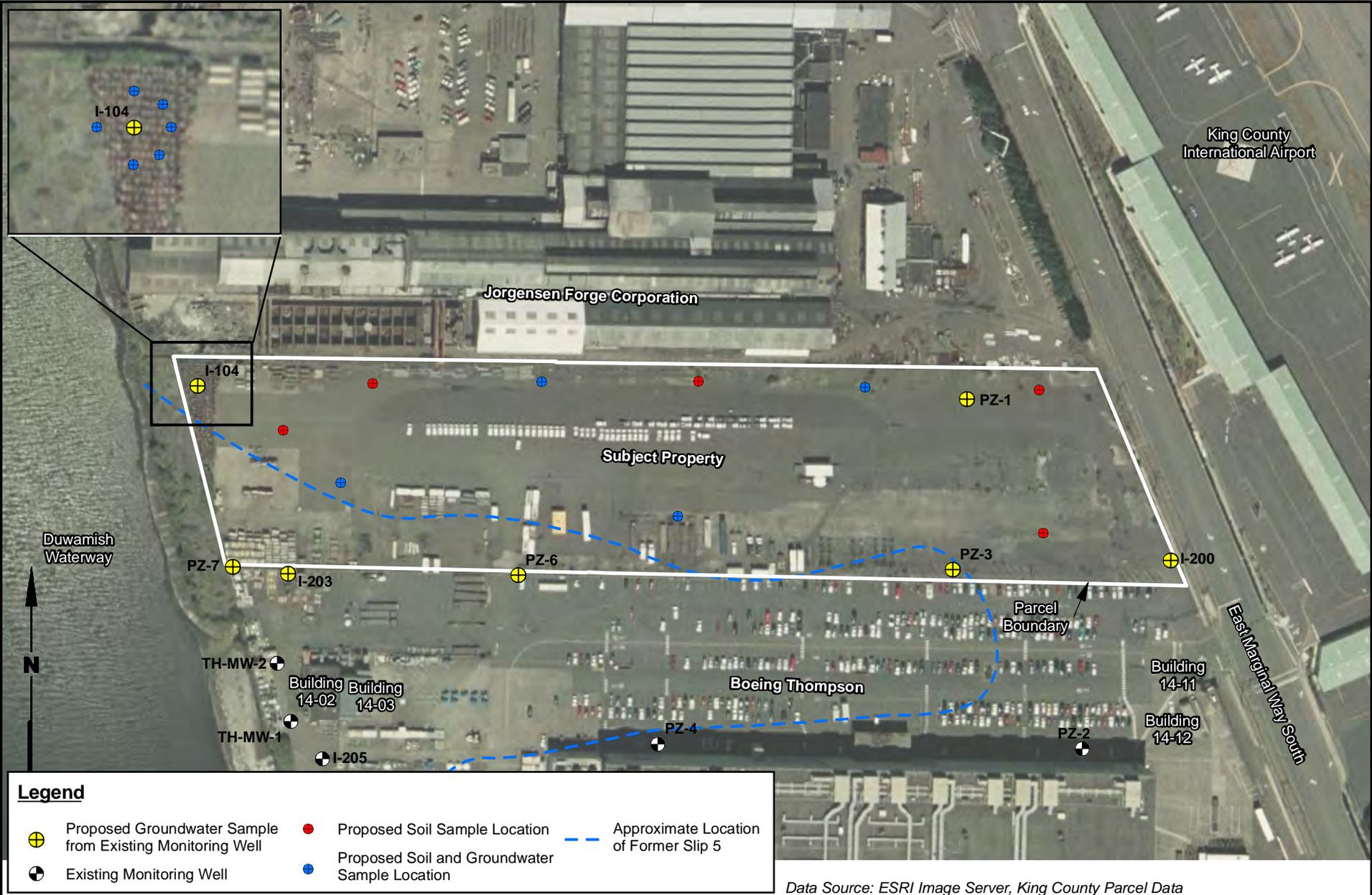
Boeing Isaacson Property  
Tukwila, Washington

**Vicinity Map**

Figure

**1**

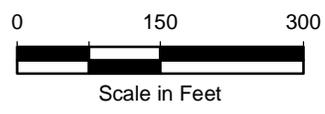




**Legend**

- Proposed Groundwater Sample from Existing Monitoring Well
- Existing Monitoring Well
- Proposed Soil Sample Location
- Proposed Soil and Groundwater Sample Location
- Approximate Location of Former Slip 5

Data Source: ESRI Image Server, King County Parcel Data



Boeing Isaacson Property  
Tukwila, Washington

**Site and Proposed  
Sample Location Plan**

Figure  
**2**

**TABLE 1  
SAMPLING AND ANALYSIS PLAN  
BOEING ISAACSON PROPERTY  
TUKWILA, WASHINGTON**

Area of Concern	Media	Sampling Approach	No. of Samples		No. of Samples	
			Soil	Analysis	Groundwater	Analysis
Existing monitoring well I-104 (hot spot arsenic investigation)	Soil / Groundwater	6 direct-push borings to approximately 2 ft below the top of the water table; maximum depth is expected to be approximately 16 ft BGS	15	Arsenic	6	Arsenic
			3 (a)	PCBs, SVOCs, Metals		
Northern property boundary (limit of previous soil stabilization project)	Soil / Groundwater	5 direct-push borings to approximately 2 ft below the top of the water table; maximum depth is expected to be approximately 16 ft BGS	3	TPH, Metals, VOCs		
			2 (b)	TPH, Metals, VOCs, PCBs, SVOCs	2	TPH, Metals, VOCs, PCBs, SVOCs, cPAHs
North of Former Slip 5 (potential former location of Mineralized Cell Wood Preserving)	Soil / Groundwater	4 direct-push borings to approximately 2 ft below the top of the water table; maximum depth is expected to be approximately 16 ft BGS	2	TPH, Metals, VOCs		
			2 (b)	TPH, Metals, VOCs, PCBs, SVOCs	2	TPH, Metals, VOCs, PCBs, SVOCs, cPAHs
Site Wide	Groundwater	Samples from existing wells and piezometers	---	---	7	TPH, Metals, VOCs, PCBs, SVOCs, cPAHs
<b>Total number of samples collected</b>			<b>20</b>		<b>17</b>	

## Notes:

Metals include arsenic, cadmium, chromium, copper, lead, mercury, and zinc.

TPH = Total Petroleum Hydrocarbons. Initial analysis by the hydrocarbon identification (HCID) method.

Follow-up quantification for gasoline, diesel, or oil will be conducted, as appropriate, based on the HCID results.

VOCs = Volatile Organic Compounds; soil samples will be collected using the 5035 methodology.

PCBs = Polychlorinated Biphenyls

SVOCs = Semivolatile Organic Compounds

cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons

BGS = Below Ground Surface

(a) These three soil samples will be collected from the westernmost direct-push boring in the area of monitoring well I-104.

(b) These soil samples will be collected from direct-push borings where water samples are planned.

**See Table 2 for specific analytical methods.**

**TABLE 2**  
**ANALYTICAL METHODS**  
**BOEING ISAACSON PROPERTY**  
**TUKWILA, WASHINGTON**

<b>Analysis</b>	<b>Medium</b>	<b>Analytical Method</b>
Metals	Soil	6010/7471
Metals	Water	200.8/6010B/7470A
VOCs	Soil	8260
VOCs	Water	8260
TPH	Soil	NWTPH-HCID
TPH	Water	NWTPH-HCID
PCBs	Soil	8082
PCBs	Water	8082
SVOCs	Soil	8270
SVOCs	Water	8270
cPAHs	Water	8270-SIM

**Notes:**

Metals include arsenic, cadmium, chromium, copper, lead, mercury, and zinc.

VOCs = Volatile Organic Compounds

TPH = Total Petroleum Hydrocarbons. Initial analysis by the hydrocarbon identification (HCID) method.

Follow-up quantification for gasoline, diesel, or oil will be conducted, as appropriate, based on the HCID results.

PCBs = Polychlorinated Biphenyls

SVOCs = Semivolatile Organic Compounds

cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons

# Health and Safety Plan



## WORK LOCATION PERSONNEL PROTECTION AND SAFETY EVALUATION FORM

**Attach Pertinent Documents/Data  
Fill in Blanks As Appropriate**

Job No.:	025173.090		
Prepared by:	Kathryn Hartley	Reviewed by:	Christine Kimmel
Date:	January 13, 2009	Date:	January 16, 2009

### A. WORK LOCATION DESCRIPTION

1. **Project Name:** Phase II ESA, Boeing Isaacson Property
2. **Location:** East Marginal Way South, Tukwila, Washington
3. **Anticipated Activities:** Soil and groundwater sampling from 15 direct-push soil borings and groundwater sampling from 7 existing monitoring wells.
4. **Size:** The site is approximately 9.84 acres.
5. **Surrounding Population:** Industrial
6. **Buildings/Homes/Industry:** Vacant asphalt capped land
7. **Topography:** Generally flat with a slight slope toward the west
8. **Anticipated Weather:** Mild; chance of rain
9. **Unusual Features:** None known
10. **Site History:** A meander of the Duwamish River was formerly located on the project site. The river was channelized in the late 1800s and early 1900s, which placed the river in its current location to the west of the site. Slip 5 of the Duwamish River remained on the site following the channelization until it was filled beginning in the 1930s. The site was developed with a steel melting, forging, and fabricating facility in the 1950s. The facility operated until the early 1980s when the property was purchased by Boeing. Boeing used the existing structures for storage for a short period of time before demolishing all structures in approximately 1990. A mound was created on the site as part of remedial actions to address arsenic-impacted soil at the site. Soil within the mound contained elevated levels of arsenic and was treated in 1991 using a stabilization process that reduced the leachability of the arsenic. The stabilized soil mound was removed from the subject property in 2008. The subject property is currently undeveloped and is paved.

## B. HAZARD DESCRIPTION

1. **Background Review:**  Complete  Partial

If partial, why?

2. **Hazardous Level:**  B  C  D  Unknown

**Justification:** Precaution.

3. **Types of Hazards:** (Attach additional sheets as necessary)

- A.  Chemical  Inhalation  Explosive  
 Biological  Ingestion  O2 Def.  Skin Contact

Describe: Exposure to chemical hazards from arsenic. Nitrile gloves will be worn. Respirators will be kept on site and will be worn if necessary (as described below).

- B.  Physical  Cold Stress  Noise  Heat Stress  Other

Describe: Eye contact with drill rig operators or other signaling methods will be used near operating equipment. Reflective vests will be worn.

- C.  Radiation

Describe:

4. **Nature of Hazards:**

- Air

Describe: Exposure to metals, volatile organic compounds (VOCs), and petroleum hydrocarbons is possible. Breathing zone vapors will be analyzed with a photoionization detector (PID).

- Soil

Describe: Exposure to metals, polychlorinated biphenyls (PCBs), VOCs, and petroleum hydrocarbons in the soil is possible. Nitrile gloves will be worn when handling soil and equipment. Conduct screening with PID and visual indication for impacted soil conditions.

- Surface Water

Describe: N/A

- Groundwater

Describe: Exposure to metals, VOCs, and petroleum hydrocarbons in the groundwater is possible. Nitrile gloves will be worn while sampling groundwater and handling equipment. Safety glasses will be worn during sampling in the event of splashing.

- Other

Describe:

## 5. Chemical Contaminants of Concern N/A

Contaminant	PEL	I.D.L.H.	Source/Quantity Characteristics	Route of Exposure	Symptoms of Acute Exposure	Instruments Used to Monitor Contaminant
Benzene	1 ppm	5 ppm	Soil and groundwater at unknown concentrations	Inhalation, ingestion, absorption, and skin or eye contact.	Irritated eyes, skin, nose, and respiratory system; giddiness; headache; nausea; staggered gait; dermatitis; fatigue; anorexia; lassitude; bone marrow depressant (carcinogenic)	PID meter
Toluene	100 ppm	150 ppm	Soil and groundwater at unknown concentrations	Inhalation, ingestion, percutaneous absorption, and skin & eye contact.	Headache, dizziness, drowsiness, coordination problems, and coma	PID meter
Xylene	100 ppm	150 ppm	Soil and groundwater at unknown concentrations	Inhalation, ingestion, percutaneous absorption, and skin & eye contact.	Nervous system depression, liver and kidney damage	PID meter
Ethylbenzene	100 ppm	125 ppm	Soil and groundwater at unknown concentrations	Inhalation, ingestion, percutaneous absorption, and skin & eye contact.	Nervous system depression, headaches, dizziness, nausea, convulsions, and coma	PID meter
Gasoline	300 ppm	500 ppm	Soil and groundwater at unknown concentrations	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, mucous membrane; dermatitis; headache; lassitude; blurred vision; dizziness; slurred speech; confusion; convulsions; chemical pneumonitis (aspiration liquid); possible liver, kidney damage; (potential occupational carcinogen)	PID meter

Contaminant	PEL	I.D.L.H.	Source/Quantity Characteristics	Route of Exposure	Symptoms of Acute Exposure	Instruments Used to Monitor Contaminant
Copper	1 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>	Soil and groundwater at unknown concentrations	Inhalation, skin or eye contact, ingestion	Irritated eyes, respiratory system; cough dyspnea; wheezing	Visual (Dust)
Arsenic	0.5 mg/m <sup>3</sup>	5.0 mg/m <sup>3</sup>	Present at moderate/high levels area-wide in soil. TCLP for stockpiled soil less than 5 mg/L.	Inhalation, eye contact, dermal contact	Skin and mucous membrane irritation; respiration irritation (potential occupational carcinogen)	Visual (Dust)
Mercury	0.05 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	Present	Inhalation eye contact, dermal contact	Irritated eyes, skin; cough; chest pains	Visual (Dust)
Lead	0.05 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>	Present	Inhalation, ingestion, dermal contact	Weakness, lassitude, facial pallor, kidney disease	Visual (Dust)
PCBs	0.001 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	Compressor oil, soil, and groundwater at unknown concentrations	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritated eyes; chloracne; liver damage; reproductive effects	Visual

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Notes:

**6. Physical Hazards of Concern**  N/A

Hazard	Location	Procedures Used to Monitor Hazard
Moving parts of drill rig, falling and flying objects	Near drill rig	Alert observation of surroundings; minimize time spent near drill rig; no loose clothing; use of safety glasses, hard hat, and steel-toed boots.
Vehicles and heavy equipment used at the site	Any area	Alert observation of surroundings, use of brightly colored safety vest. Make eye contact with operator prior to entering work zone.
Slips, trips, and falls	Any area	Alert observation of surroundings. Clean housekeeping work practices.

7. **Work Location Instrument Readings**  N/A

Location: \_\_\_\_\_  
Percent O<sub>2</sub>: \_\_\_\_\_ Percent LEL: \_\_\_\_\_  
Radioactivity: \_\_\_\_\_ PID: \_\_\_\_\_  
FID: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_

---

Location: \_\_\_\_\_  
Percent O<sub>2</sub>: \_\_\_\_\_ Percent LEL: \_\_\_\_\_  
Radioactivity: \_\_\_\_\_ PID: \_\_\_\_\_  
FID: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_

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Location: \_\_\_\_\_  
Percent O<sub>2</sub>: \_\_\_\_\_ Percent LEL: \_\_\_\_\_  
Radioactivity: \_\_\_\_\_ PID: \_\_\_\_\_  
FID: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_

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Location: \_\_\_\_\_  
Percent O<sub>2</sub>: \_\_\_\_\_ Percent LEL: \_\_\_\_\_  
Radioactivity: \_\_\_\_\_ PID: \_\_\_\_\_  
FID: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_  
Other: \_\_\_\_\_ Other: \_\_\_\_\_

---

8. **Hazards Expected In Preparation For Work Assignment**  N/A

Describe:

## C. PERSONAL PROTECTIVE EQUIPMENT

### 1. Level of Protection

A     B     C     D

Location/Activity: Soil and groundwater sample collection

A     B     C     D

Location/Activity: If action levels are met or exceeded

### 2. Protective Equipment (specify probable quantity required)

**Respirator**     N/A

- SCBA, Airline
- Full-Face Respirator
- Half-Face Respirator (Particulate cart. organic vapor) (Only if upgrade to Level C per Attachment A)
- Escape mask
- None
- Other:
- Other: Ear plugs

**Clothing**     N/A

- Fully Encapsulating Suit
- Chemically Resistant Splash Suit
- Apron, Specify:
- Tyvek Coverall (Only if upgrade to Level C)
- Saranex Coverall
- Coverall, Specify
- Other:

**Head & Eye**     N/A

- Hard Hat
- Goggles
- Face Shield
- Safety Eyeglasses
- Other:

**Hand Protection**     N/A

- Undergloves; Type: nitrile
- Gloves; Type:
- Overgloves; Type:
- None
- Other:

**Foot Protection**     N/A

- Neoprene Safety Boots with Steel Toe/Shank
- Disposable Overboots
- Other: Steel-toed boots

**3. Monitoring Equipment**  N/A

- |  |   |
|--|---|
| <input type="checkbox"/> CGI                       | <input checked="" type="checkbox"/> PID |
| <input type="checkbox"/> O <sup>2</sup> Meter      | <input type="checkbox"/> FID            |
| <input type="checkbox"/> Rad Survey                | <input type="checkbox"/>                |
| <input type="checkbox"/> Detector Tubes (optional) |   |

Type:**D. PERSONAL DECONTAMINATION**

- |  |                                       |
|--|---------------------------------------|
| <input checked="" type="checkbox"/> Required | <input type="checkbox"/> Not Required |
|--|---------------------------------------|

Personnel should decontaminate by washing with soap and water prior to eating and departing from the site. Disposable PPE will be discarded as solid waste.

**EQUIPMENT DECONTAMINATION**

- |  |                                       |
|--|---------------------------------------|
| <input checked="" type="checkbox"/> Required | <input type="checkbox"/> Not Required |
|--|---------------------------------------|

If required, describe:

All sampling equipment will be decontaminated using wet decontamination procedures:

- Wash and scrub equipment with Alconox/tap water solution.
- Rinse with tap water.
- Rinse with de-ionized water.
- Repeat entire procedure or any parts of the procedure as necessary.

Down-the-hole equipment will be decontaminated using a hot-water, high-pressure steam cleaner.

In addition to the wet decontamination procedures, other measures will be taken to prevent cross-contamination. These measures include changing out disposable gloves between each sampling location, using fresh paper towels at each sample location, and maintaining a clean work area.

**E. PERSONNEL**

	<b>Name</b>	<b>Work Location Title/Task</b>	<b>Medical Current</b>	<b>Fit Test Current</b>
1.	<b>Kris Hendrickson</b>	<b>Project Manager</b>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<b>Kathryn Hartley</b>	<b>Project Scientist/Task Manager</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.	<b>Christine Kimmel</b>	<b>Health and Safety Officer</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.	<b>Elizabeth Poole</b>	<b>Senior Staff Scientist/Field Personnel</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>
6.			<input type="checkbox"/>	<input type="checkbox"/>
7.			<input type="checkbox"/>	<input type="checkbox"/>
8.			<input type="checkbox"/>	<input type="checkbox"/>
9.			<input type="checkbox"/>	<input type="checkbox"/>
10.			<input type="checkbox"/>	<input type="checkbox"/>

**Site Safety Coordinator:** Elizabeth Poole

**F. ACTIVITIES COVERED UNDER THIS PLAN**

<b>Task No.</b>	<b>Description</b>	<b>Preliminary Schedule</b>
1	Soil and groundwater sampling	February 2009

**G. SUBCONTRACTOR'S HEALTH AND SAFETY PROGRAM EVALUATION**

N/A

Name and Address of Subcontractor: Cascade Drilling  
P.O. Box 1184  
Woodinville, WA 98072  
(425) 485-8908

**EVALUATION CRITERIA**

Item	Adequate	Inadequate	Comments
Medical Surveillance Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Personal Protective Equipment Availability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Onsite Monitoring Equipment Availability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Safe Working Procedures Specification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Training Protocols	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ancillary Support Procedures (if any)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Emergency Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Evacuation Procedures Contingency Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Decontamination Procedures Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Decontamination Procedures Personnel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**GENERAL HEALTH AND SAFETY PROGRAM EVALUATION:**  Adequate  Inadequate

Additional Comments: Review based on previous experience with contractor, review of contractor health and safety plan, and terms of Basic Agreement with Landau Associates

Evaluation Conducted By: Christine Kimmel

Date: October 24, 2008

**EMERGENCY FACILITIES AND NUMBERS**

Hospital: **Harborview Medical Center**  
 325 Ninth Avenue Seattle, WA  
 Telephone: (206) 744-3000

**Boeing Onsite Clinic and Medical Technicians:**  
 (206) 655-2222 (Emergency Dispatch)  
 2-2222 from a plant phone

**Have site name (Isaacson Site), building number, column number, and door number available.**

Directions:

Maneuvers	Distance
 1: Start out going SOUTHEAST on E MARGINAL WAY S toward S 96TH PL.	0.7 miles
 2: Turn SLIGHT RIGHT.	<0.1 miles
 3: Turn LEFT onto S BOEING ACCESS RD.	0.4 miles
 4: Merge onto I-5 N toward SEATTLE.	6.4 miles
 5: Take the DEARBORN ST. / JAMES ST. exit- EXIT 164A- toward MADISON ST.	1.0 miles
 6: Take the JAMES ST exit.	0.2 miles
 7: Turn RIGHT onto JAMES ST.	0.1 miles
 8: Turn RIGHT onto 9TH AVE.	0.1 miles
 9: End at <b>325 9th Ave</b> Seattle, WA 98104-2420, US	
<b>Total Est. Time:</b> 13 minutes <b>Total Est. Distance:</b> 9.34 miles	

Emergency Transportation Systems (Fire, Police, Ambulance) – 911

Emergency Routes – Map (Attachment B)

Emergency Contacts:

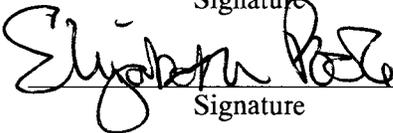
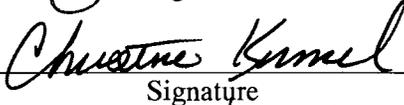
	<b>Mobile</b>	<b>Office</b>
Kathryn Hartley	(425) 248-7520	425-778-0907
Chris Kimmel	(206) 786-3801	425-778-0907

**In the event of an emergency, do the following:**

1. Call for help as soon as possible. Call Boeing Emergency Dispatch (206-655-2222) then call 911. Give the following information:
  - WHERE the emergency is – use cross streets or landmarks
  - PHONE NUMBER you are calling from
  - WHAT HAPPENED – type of injury
  - WHAT is being done for the victim(s)
  - YOU HANG UP LAST – let the person you called hang up first.
  
2. If the victim can be moved, paramedics will transport to the hospital. If the injury or exposure is not life threatening, decontaminate the individual first. If decontamination is not feasible, wrap the individual in a blanket or sheet of plastic prior to transport.

**HEALTH AND SAFETY PLAN  
APPROVAL/SIGN OFF FORMAT**

I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety briefing.

Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Elizabeth Poole Site Safety Coordinator		1/16/09
Chris Kimmel Landau Health and Safety Manager		1/16/09
Kris Hendrickson Project Manager		1/16/09

Personnel Health and Safety Briefing Conducted By:

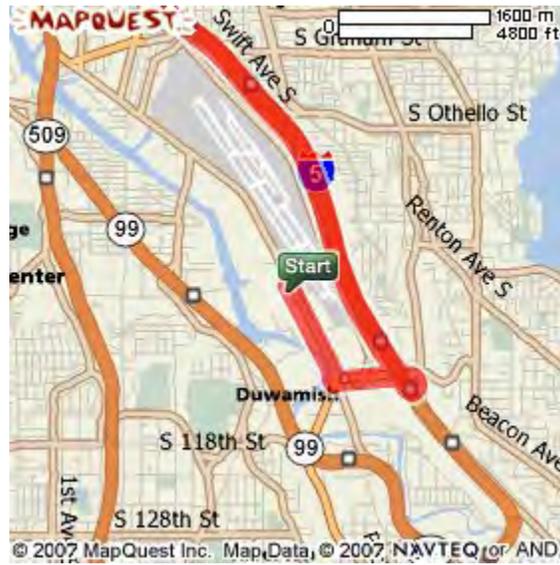
Name	Signature	Date

**ATTACHMENT A**

**ACTION LEVELS FOR RESPIRATORY PROTECTION**

Monitoring Parameter	Reading	Level of Protection
VOCs	>10 ppm and <20 ppm	Upgrade to level C half-face respirator
VOCs	>20 ppm and <100 ppm	Upgrade to level C, temporarily shutdown operations until ambient conditions reduce
VOCs	>100 ppm	Stop work, contact H&S Manager

### ATTACHMENT B MAP TO HOSPITAL





# Soil Boring Logs

# Soil Classification System

	MAJOR DIVISIONS	CLEAN GRAVEL (Little or no fines)	GRAPHIC SYMBOL	LETTER SYMBOL <sup>(1)</sup>	TYPICAL DESCRIPTIONS <sup>(2)(3)</sup>
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL  (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		<b>GW</b>	Well-graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		<b>GP</b>	Poorly graded gravel; gravel/sand mixture(s); little or no fines
	SAND AND SANDY SOIL  (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		<b>GM</b>	Silty gravel; gravel/sand/silt mixture(s)
		SAND WITH FINES (Appreciable amount of fines)		<b>GC</b>	Clayey gravel; gravel/sand/clay mixture(s)
		CLEAN SAND (Little or no fines)		<b>SW</b>	Well-graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)		<b>SP</b>	Poorly graded sand; gravelly sand; little or no fines
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY  (Liquid limit less than 50)		<b>ML</b>	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity	
			<b>CL</b>	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay	
			<b>OL</b>	Organic silt; organic, silty clay of low plasticity	
	SILT AND CLAY  (Liquid limit greater than 50)		<b>MH</b>	Inorganic silt; micaceous or diatomaceous fine sand	
			<b>CH</b>	Inorganic clay of high plasticity; fat clay	
			<b>OH</b>	Organic clay of medium to high plasticity; organic silt	
	HIGHLY ORGANIC SOIL			<b>PT</b>	Peat; humus; swamp soil with high organic content

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		<b>AC or PC</b>	Asphalt concrete pavement or Portland cement pavement
ROCK		<b>RK</b>	Rock (See Rock Classification)
WOOD		<b>WD</b>	Wood, lumber, wood chips
DEBRIS		<b>DB</b>	Construction debris, garbage

- Notes:
- USCS letter symbols correspond to symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM for sand or gravel) indicate soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.
  - Soil descriptions are based on the general approach presented in the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the Standard Test Method for Classification of Soils for Engineering Purposes, as outlined in ASTM D 2487.
  - Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:
    - Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
    - Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
    - > 15% and ≤ 30% - "gravelly," "sandy," "silty," etc.
    - Additional Constituents: > 5% and ≤ 15% - "with gravel," "with sand," "with silt," etc.
    - ≤ 5% - "with trace gravel," "with trace sand," "with trace silt," etc., or not noted.
  - Soil density or consistency descriptions are based on judgement using a combination of sampler penetration blow counts, drilling or excavating conditions, field tests, and laboratory tests, as appropriate.

Drilling and Sampling Key		Field and Lab Test Data																																																				
SAMPLER TYPE	SAMPLE NUMBER & INTERVAL																																																					
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Code</th> <th style="text-align: left;">Description</th> </tr> <tr><td>a</td><td>3.25-inch O.D., 2.42-inch I.D. Split Spoon</td></tr> <tr><td>b</td><td>2.00-inch O.D., 1.50-inch I.D. Split Spoon</td></tr> <tr><td>c</td><td>Shelby Tube</td></tr> <tr><td>d</td><td>Grab Sample</td></tr> <tr><td>e</td><td>Single-Tube Core Barrel</td></tr> <tr><td>f</td><td>Double-Tube Core Barrel</td></tr> <tr><td>g</td><td>2.50-inch O.D., 2.00-inch I.D. WSDOT</td></tr> <tr><td>h</td><td>3.00-inch O.D., 2.375-inch I.D. Mod. California</td></tr> <tr><td>i</td><td>Other - See text if applicable</td></tr> <tr><td>1</td><td>300-lb Hammer, 30-inch Drop</td></tr> <tr><td>2</td><td>140-lb Hammer, 30-inch Drop</td></tr> <tr><td>3</td><td>Pushed</td></tr> <tr><td>4</td><td>Vibrocure (Rotasonic/Geoprobe)</td></tr> <tr><td>5</td><td>Other - See text if applicable</td></tr> </table>	Code	Description	a	3.25-inch O.D., 2.42-inch I.D. Split Spoon	b	2.00-inch O.D., 1.50-inch I.D. Split Spoon	c	Shelby Tube	d	Grab Sample	e	Single-Tube Core Barrel	f	Double-Tube Core Barrel	g	2.50-inch O.D., 2.00-inch I.D. WSDOT	h	3.00-inch O.D., 2.375-inch I.D. Mod. California	i	Other - See text if applicable	1	300-lb Hammer, 30-inch Drop	2	140-lb Hammer, 30-inch Drop	3	Pushed	4	Vibrocure (Rotasonic/Geoprobe)	5	Other - See text if applicable		<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Code</th> <th style="text-align: left;">Description</th> </tr> <tr><td>PP = 1.0</td><td>Pocket Penetrometer, tsf</td></tr> <tr><td>TV = 0.5</td><td>Torvane, tsf</td></tr> <tr><td>PID = 100</td><td>Photoionization Detector VOC screening, ppm</td></tr> <tr><td>W = 10</td><td>Moisture Content, %</td></tr> <tr><td>D = 120</td><td>Dry Density, pcf</td></tr> <tr><td>-200 = 60</td><td>Material smaller than No. 200 sieve, %</td></tr> <tr><td>GS</td><td>Grain Size - See separate figure for data</td></tr> <tr><td>AL</td><td>Atterberg Limits - See separate figure for data</td></tr> <tr><td>GT</td><td>Other Geotechnical Testing</td></tr> <tr><td>CA</td><td>Chemical Analysis</td></tr> </table>	Code	Description	PP = 1.0	Pocket Penetrometer, tsf	TV = 0.5	Torvane, tsf	PID = 100	Photoionization Detector VOC screening, ppm	W = 10	Moisture Content, %	D = 120	Dry Density, pcf	-200 = 60	Material smaller than No. 200 sieve, %	GS	Grain Size - See separate figure for data	AL	Atterberg Limits - See separate figure for data	GT	Other Geotechnical Testing	CA	Chemical Analysis
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<h3 style="margin: 0;">Groundwater</h3> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"></td> <td>Approximate water level at time of drilling (ATD)</td> </tr> <tr> <td style="text-align: center;"></td> <td>Approximate water level at time other than ATD</td> </tr> </table>			Approximate water level at time of drilling (ATD)		Approximate water level at time other than ATD																																																	
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3/31/09 \\EDM\DATA\GINT\PROJECTS\025173.090.GPJ SOIL CLASS SHEET

# IDP-1/IDP-1A

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft) 0 2 4 6 8 10 12 14 16 18 20	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
	CA	d3		1.0	AC	Concrete	
	CA	d3		0.9	SP	Brown, fine to medium SAND with trace silt and gravel (medium dense, damp) (no odor, no sheen) [Fill]  -Crushed rock layer 0.25 ft thick	
	CA	d3		0.8	SM	Brown, silty fine to medium SAND (medium dense, moist) (no odor, no sheen)  -Crushed rock layer 0.5 ft thick	▽ ATD
					SP/SM	Gray, fine to medium SAND with silt (medium dense, wet) (no odor, no sheen) [Native]	

Boring Completed 02/02/09  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-1/IDP-1A

Figure  
**B-2**

## IDP-2

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft) 0 2 4 6 8 10 12 14 16 18 20	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
	CA	d3		0.8	AC	Asphalt	
	CA	d3		0.8	GW	Crushed gravel material	
	CA	d3		0.8	SP	Brown, fine to coarse SAND with some silt and fine gravel (medium dense, damp) (no odor, no sheen) [Fill]  -Lens of crushed rock and slag material	
	CA	d3		0.8	SM	Brown mottled silty fine SAND (medium dense, moist) (no order, no sheen) [Native]	
				0.8	SP	Gray, fine to medium SAND with some silt (medium dense, moist to wet) (no odor, no sheen)	▽ ATD

Boring Completed 02/02/09  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-2

Figure  
**B-3**

# IDP-3

SAMPLE DATA				SOIL PROFILE			GROUNDWATER	
Depth (ft) 0 2 4 6 8 10 12 14 16 18 20	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level	
	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>							
	CA	d3		0.7	AC	SP	ASPHALT	
	CA	d3		0.8	SM	ML	Brown, gravelly, fine to coarse SAND (medium dense, damp) (no odor, no sheen) [Fill]  Brown mottled, silty, fine to medium SAND (medium dense, damp to moist) (no odor, no sheen) [Fill]  Gray to dark gray, sandy, SILT (medium dense, moist to wet) (organic odor, no sheen) [Fill] -Sandy layer 0.5 ft thick  - Wood debris at 7 and 9 ft	
	CA	d3		0.8	SP/SM	SM	-Coarse gravel lens -Becomes brown mottled  Gray, fine to medium SAND with silt (medium dense, wet) (no odor, no sheen) [Native]	▽ ATD

Boring Completed 02/02/09  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-3

Figure  
**B-4**



# IDP-5

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft) 0 2 4 6 8 10 12 14 16 18 20	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
		d3				AC	Asphalt
	CA			0.7		SP	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>
							Brown, gravelly, fine to medium SAND (medium dense, damp) (no odor, no sheen) [Fill]  -Lens of crushed rock at 3 ft  -Lens of crushed rock at 5 ft
	CA			0.7		SP/SM	Water Level
		d3					
	CA			0.7		SM	Water Level
	CA			0.7			
		d3					
							▽ ATD

Boring Completed 02/02/09  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-5

Figure  
**B-6**

## IDP-6/IDP-6A

SAMPLE DATA		SOIL PROFILE			GROUNDWATER			
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
	0				AC	AS	Asphalt	
1					GW	GM	Crushed gravel material	
2		d3			SP	SM	Gray, gravelly, fine to coarse SAND with trace silt (medium dense, damp) (no odor, no sheen) [Fill] -Crushed rock layer at 1.5 ft -Crushed rock lens at 2.5 ft	
3	CA			0.2				
4	CA			0.7		SM	Brown mottled, silty, fine to medium SAND (medium dense, damp to wet) (no odor, no sheen) [Native]	
5								
6								
7		d3						
8	CA			0.7				
9								
10							- Increase in sand content	
11								
12	CA	d3		0.7				
13								
14								▽ ATD

Boring Completed 02/02/09  
Total Depth of Boring = 15.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-6/IDP-6A

Figure  
**B-7**

# IDP-7

SAMPLE DATA		SOIL PROFILE				GROUNDWATER		
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
	0				AC	AC	Asphalt	
2		d3			SP/SM	SP/SM	Brown, fine to coarse SAND with silt and gravel (medium dense, damp) (no odor, no sheen) [Fill]  -Crushed rock at 2 ft	
4	CA			0.0	SP	SP	Gray, fine to medium SAND (medium dense, moist) (no odor, no sheen) [Native]	
6		d3		0.0	SM	SM	Gray, silty, fine to medium SAND (medium dense, moist) (no odor, no sheen)  -Wood debris at 7 ft	
8					ML	ML	Gray, SILT (soft, moist) (no odor, no sheen)	
10		d3		0.0				
12								▽ ATD
14		d3		0.1	SM	SM	Gray, clayey, SILT with sand (soft, wet) (no odor, no sheen)	
16								

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.09\GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-7

Figure  
**B-8**

# IDP-8

SAMPLE DATA		SOIL PROFILE				GROUNDWATER		
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Water Level
							Ground Elevation (ft): _____	
							Drilled By: <u>Cascade Drilling Inc.</u>	
	0					AC	Asphalt	
2		d3				SP	Brown, fine to coarse SAND with silt and gravel (medium dense, damp) (no odor, no sheen) [Fill]	
4	CA			0.0			-Layer of crushed rock at 2 ft  -Increase in silt content	
6		d3		0.0		SM	Gray, silty, fine to medium SAND (medium dense, moist) (no odor, no sheen) [Native]	
8							-Silt layer at 6 ft  -Organic matter at 7 ft - Sand layer at 7.5 ft	
10		d3		0.0			-Increase in silt with depth	
12								
14							▽ ATD	
16							Gray, fine to medium SAND with silt (medium dense, wet) (no odor, no sheen) [Native]	

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-8

Figure  
**B-9**

# IDP-9

## SAMPLE DATA

## SOIL PROFILE

## GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0						AC	Aphalt	
0 - 2	CA	d3				SP	Brown, fine to coarse SAND with gravel and trace silt (medium dense, damp) (no odor, no sheen) [Fill]  -Crushed rock at 2 ft  -Decrease in gravel content, increase in silt and fine sand	
2 - 10		d3		0.0		SP/SM	Brown, fine to medium SAND with silt (medium dense, damp) (no odor, no sheen)	
10 - 16		d3		0.1		SM	Brown mottled, silty, fine SAND (medium dense, moist to wet) (no odor, no sheen) [Native]	ATD
16		d3		0.3				

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-9

Figure  
**B-10**

# IDP-10

SAMPLE DATA		SOIL PROFILE			GROUNDWATER				
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Ground Elevation (ft): _____	Water Level
	Drilled By: <u>Cascade Drilling Inc.</u>								
0						AC	Asphalt		
2	CA	d3		0.2		SP	Brown, fine to coarse SAND with gravel and trace silt (medium dense, damp) (no odor, no sheen) [Fill]		
4							-Decrease in gravel		
6		d3		0.2					
8							-Crushed rock layer at 8.5 ft		
10		d3		0.3			-Decrease in silt content		
12						SM	Brown mottled, silty, fine to medium SAND (medium dense, wet) (no odor, no sheen) [Native]		▽ ATD
14		d3		0.3			-Becomes gray		
16									

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-10

Figure  
**B-11**

# IDP-11

SAMPLE DATA		SOIL PROFILE				GROUNDWATER	
Depth (ft) 0 2 4 6 8 10 12 14 16 18 20	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>  Water Level
	CA	d3		0.2	[Asphalt]	AC	Asphalt
					[Crushed gravel]	GW	Crushed gravel material
					[Sand]	SP	Brown, fine to medium SAND with trace silt (medium dense, damp) (no odor, no sheen) [Fill]
					[Silt]		-Increase in silt and moisture content
	d3		0.3			-Decrease in silt content	ATD
	d3		0.3				

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-11

Figure  
**B-12**

# IDP-12

SAMPLE DATA		SOIL PROFILE				GROUNDWATER		
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Water Level
							Ground Elevation (ft): _____	
							Drilled By: <u>Cascade Drilling Inc.</u>	
0					[Solid Black]	AC	Asphalt	
					[Dotted]	GW	Crushed gravel material	
2		d3		0.3	[Dotted]	SM	Brown, fine to medium SAND with silt (medium dense, damp to wet) (no odor, no sheen) [Fill]	
4								
6		d3		0.4			-Crushed rock lens at 6 ft	
8							-Crushed rock lens at 8 ft	
10		d3		0.5				
12	CA						-Crushed rock lens at 12 ft	
14		d3		0.6	[Dotted]	SM	Brown mottled, silty, fine to medium SAND (medium dense, wet) (no odor, no sheen) [Native]	▽ ATD
16								

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-12

Figure  
**B-13**

# IDP-13

SAMPLE DATA		SOIL PROFILE			GROUNDWATER	
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphical Symbol USCS Symbol Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
0					AC	Asphalt
0.5					GW	Crushed gravel material
1.0					AC	Asphalt
1.5		d3		0.5	SP	Brown, gravelly, fine to coarse SAND (medium dense, moist) (no odor, no sheen) [Fill]
2.0						-Crushed rock layer at 4 ft
4.0						
6.0		d3		0.6	SM	Gray mottled, silty, fine to medium SAND (medium dense, damp) (no odor, no sheen) [Native]
8.0						-Increase in silt content at 11 ft
10.0						
12.0	CA			0.4		
14.0					SP	Gray, fine to medium SAND with silt (medium dense, wet) (no odor, no sheen)
16.0						

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.09\GPJ SOIL BORING LOG

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-13

Figure  
**B-14**

# IDP-14

SAMPLE DATA		SOIL PROFILE				GROUNDWATER		
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u>	Water Level
							Ground Elevation (ft): _____	
							Drilled By: <u>Cascade Drilling Inc.</u>	
0					AC		Asphalt	
					GW		Crushed gravel material	
2		d3		0.2	SP/SM		Gray, fine to medium SAND with silt (medium dense, damp to moist) (no odor, no sheen) [Fill]	
4					SM		Gray, silty, fine to medium SAND (medium dense, moist to wet) (no odor, no sheen) [Native]	
6		d3		0.2			-Organic matter at 5.5 ft	
8							-Wood debris at 8 ft	
10		d3					-Increase in silt content at 9 ft	
12	CA			0.4			-Silt layer at 11 ft	
14		d3		0.5			-Increase in sand content	▽ ATD
16								

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.090.GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-14

Figure  
**B-15**

# IDP-15

SAMPLE DATA		SOIL PROFILE				GROUNDWATER		
Depth (ft) 0 2 4 6 8 10 12 14 16 18 20	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____ Drilled By: <u>Cascade Drilling Inc.</u>	Water Level
	CA			0.5	[Asphalt]	AC	Asphalt	
		d3		0.3	[Brown, gravelly sand]	SP	Brown, gravelly, fine to coarse SAND with trace silt (medium dense, damp) (no odor, no sheen) [Fill]  -Crushed rock at 3 ft	
		d3		0.4	[Gray, fine to medium sand]	SM	Gray, fine to medium SAND with silt (medium dense, damp) (no odor, no sheen) [Native]  -Becomes dark gray with increased silt content at 5.5 ft  -Wood debris at 7 ft  -Becomes light gray with increased silt content at 9 ft	
		d3		0.5	[Light gray sand]	SP	-Increase in sand content	▽ ATD

Boring Completed 02/03/09  
Total Depth of Boring = 16.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
  2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
  3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

25173.09 3/31/09 \\EDM\DATA\GINT\GINT\PROJECTS\025173.09\GPJ SOIL BORING LOG



Boeing Isaacson Property  
Tukwila, Washington

Log of Boring IDP-15

Figure  
**B-16**

## **Laboratory Analytical Reports (on CD-ROM)**



## Analytical Resources, Incorporated

Analytical Chemists and Consultants  
February 23, 2009

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Isaacson – Phase 2 025173.090**  
**ARI Job: OK85**

Dear Kathryn:

Enclosed, please find the original and revised copy of the Chain-of-Custody (COC) record, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted ten water samples, eighteen soil samples and trip blank in good condition on February 2, 2009. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM cPAHs, PCBs, NWTPH-HCID, and Total and Dissolved Metals, as requested on the COC.

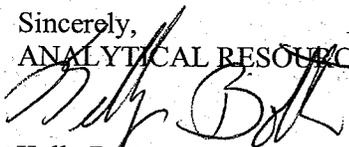
Several LCS and LCSD percent recoveries were outside of the control limits both low and high for the soil and water SVOC analyses. No further corrective action was taken.

The SIM cPAHs method blank surrogate MNP is out of control low. The surrogate MNP is not associated with the cPAHs and no further corrective action was taken as all other QC is in control.

The total metals method blank contained zinc. All associated sample zinc concentrations were greater than five times the concentration found in the method blank and no further corrective action was taken.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC



Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

KB/co  
Enclosures





- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

Date 2/2/09  
Page 2 of 2

## Chain-of-Custody Record

Project Name Boeing Base Project No. 0250173-010

Project Location/Event Tukwila Phase II

Sampler's Name E Poole / M Brunner

Project Contact K Hartley

Send Results To K Hartley, K Hendrickson, A Hakson

### Testing Parameters

Turnaround Time

Standard

Accelerated

\_\_\_\_\_

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters	Observations/Comments
IDP-5-11-090202	020209	1400	S	1	X	___ Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: ___ run acid wash/silica gel cleanup ___ run samples standardized to _____ product  ___ Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): ___ non-preserved ___ preserved w/methanol ___ preserved w/sodium bisulfate ___ Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal water samples field filtered  Other _____ _____ _____
IDP-6-4-090202		1500	S	1	X	
IDP-6-8-090202		1500	S	1	X	
IDP-6-12-090202		1505	S	1	X	
IDP-1A-GW-090202		1017	W		X	
IDP-2-GW-090202		1110	W		X	
IDP-3-GW-090202		1130	W		X	
IDP-4-GW-090202		1320	W		X	
IDP-5-GW-090202		1430	W		X	
IDP-6-GW-090202		1520	W		X	
TB						

Special Shipment/Handling or Storage Requirements \_\_\_\_\_ Method of Shipment \_\_\_\_\_

**Relinquished by**

E Poole  
Signature

Elizabeth Poole  
Printed Name

Landau  
Company

Date 2/2/09 Time 1625

**Received by**

Gami Hayes  
Signature

Gami Hayes  
Printed Name

ARI  
Company

Date 2/2/09 Time 1625

**Relinquished by**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Company

Date \_\_\_\_\_ Time \_\_\_\_\_

**Received by**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Company

Date \_\_\_\_\_ Time \_\_\_\_\_



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- 

Date 2/2/09  
Page 1 of 2

### Chain-of-Custody Record

Project Name: Boeing Isarcon Project No: 025173.090  
 Project Location/Event: Pukwila Phase II  
 Sampler's Name: Elizabeth Poole / Mark Brunner  
 Project Contact: Kathryn Hardy, Katie Lewis  
 Send Results To: K Hardy, K Brunner, A Johnson

#### Testing Parameters

Turnaround Time  
 Standard  
 Accelerated

Sample I.D.	Date	Time	Matrix	No. of Containers	ACM	PAHs	HClP	SVOC	VOC	D's	Metals	CRAMS-SIN	AS	HCB	Observations/Comments
PZ-7-090202	020209	0957	W	15	X	X	X	X	X	X	X	X	X	X	<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal-water samples field filtered other Metals: <u>As, Cadmium, Cr, Cu, Pb, Hg, Zinc</u>
I-104-090202		1130		1	X	X	X	X	X	X	X	X	X		
PZ-1-090202		1430		1	X	X	X	X	X	X	X	X	X		
I-104-090202		1550	V	1	X	X	X	X	X	X	X	X	X		
IDP-1-4-090202		925	S	1										X	
IDP-1A-9-090202		930												X	
IDP-1A-14-090202		1000												X	
IDP-2-4-090202		1035												X	
IDP-2-8-090202		1045												X	
IDP-2-11-090202		1055												X	
IDP-3-4-090202		1125												X	
IDP-3-8-090202		1130												X	
IDP-3-11-090202		1135												X	
IDP-4-4-090202		1220												X	
IDP-4-8-090202		1230												X	
IDP-4-11-090202		1235												X	
IDP-5-4-090202		1350												X	
IDP-5-8-090202		1355												X	

Special Shipment/Handling or Storage Requirements		Method of Shipment	
Relinquished by <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>Landau</u> Company Date <u>2/2/09</u> Time <u>1625</u>	Received by <u>Dami Hayes</u> Signature <u>Dami Hayes</u> Printed Name <u>ACI</u> Company Date <u>2/2/09</u> Time <u>1635</u>	Relinquished by  Signature  Printed Name  Company Date _____ Time _____	Received by  Signature  Printed Name  Company Date _____ Time _____



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2498
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- 

# Chain-of-Custody Record

Date 2/2/09  
Page 2 of 2

*added 8/18/09 by KPH*

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters										Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/>	Observations/Comments	
					As	VOCs	PCBs	SVOCs	Metals								
IDP 5-11-090202	02/02/09	1405	S	1	X												<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion
IDP 6-4-090202		1508		1	X												NWTPH-Dx:
IDP 6-8-090202		1508		1	X					X	X	X					run acid wash/silica gel cleanup
IDP 6-12-090202		1305		1	X					X	X	X					run samples standardized to product
IDP 1A-GW-090202		1017	W			X											Analyze for EPH if no specific product identified
IDP 2-GW-090202		1110				X											VOC/BTEX/VPH (soil):
IDP 3-GW-090202		1150				X											non-preserved
IDP 4-GW-090202		1320				X											preserved w/methanol
IDP 5-GW-090202		1430				X											preserved w/sodium bisulfate
IDP 6-GW-090202		1520				X											Freeze upon receipt
TR				2			X										<input checked="" type="checkbox"/> Dissolved metal water samples field filtered

*KPH 8/18/09*

*added 2/19/09 KPH*

Special Shipment/Handling or Storage Requirements		Method of Shipment	
<b>Relinquished by</b> <i>Elin Poole</i> Signature <i>Elizabeth Poole</i> Printed Name Landau Company Date <u>2/2/09</u> Time <u>1625</u>	<b>Received by</b> <i>Gami Hayes</i> Signature <i>Gami Hayes</i> Printed Name ARS Company Date <u>2/2/09</u> Time <u>1625</u>	<b>Relinquished by</b> Signature Printed Name Company Date _____ Time _____	<b>Received by</b> Signature Printed Name Company Date _____ Time _____



# Cooler Receipt Form

ARI Client: Boeing Isaccson  
COC No: \_\_\_\_\_  
Assigned ARI Job No: \_\_\_\_\_

Project Name: \_\_\_\_\_  
Delivered by: Hand  
Tracking No: \_\_\_\_\_

### Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? ..... YES  NO
- Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) ..... 7.4 °C

Cooler Accepted by: AV Date: 2/2/09 Time: 0:8

**Complete custody forms and attach all shipping documents**

### Log-In Phase:

- Was a temperature blank included in the cooler? ..... YES  NO
- What kind of packing material was used? ..... BW
- Was sufficient ice used (if appropriate)? ..... YES  NO
- Were all bottles sealed in individual plastic bags? ..... YES  NO
- Did all bottle arrive in good condition (unbroken)? ..... YES  NO
- Were all bottle labels complete and legible? ..... YES  NO
- Did all bottle labels and tags agree with custody papers? ..... YES  NO
- Were all bottles used correct for the requested analyses? ..... YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) ..... YES  NO
- Were all VOC vials free of air bubbles? ..... NA YES  NO
- Was sufficient amount of sample sent in each bottle? ..... YES  NO

Samples Logged by: MM Date: 2/3/09 Time: 849

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

Explain discrepancies or negative responses:

Coc reads 1 Trip Blank, but 2 Trip Blanks were found in cooler.

Revised coc sent  
2/3/09

By: MM

Date: 2-3-09

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: PZ-7-090202  
SAMPLELab Sample ID: OK85A  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized:   
Reported: 02/10/09QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 15:08  
Instrument/Analyst: NT4/LJRSample Amount: 500 mL  
Final Extract Volume: 0.50 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-7-090202  
SAMPLE

Lab Sample ID: OK85A  
LIMS ID: 09-3269  
Matrix: Water  
Date Analyzed: 02/06/09 15:08

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.8%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	84.4%	d4-1,2-Dichlorobenzene	67.2%
d5-Phenol	37.9%	2-Fluorophenol	51.7%
2,4,6-Tribromophenol	74.7%	d4-2-Chlorophenol	72.3%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-104-090202  
SAMPLE

Lab Sample ID: OK85B

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3270

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Date Extracted: 02/04/09

Sample Amount: 500 mL

Date Analyzed: 02/06/09 15:43

Final Extract Volume: 0.50 mL

Instrument/Analyst: NT4/LJR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
77-47-6	2-Methylnaphthalene	1.0	< 1.0 U
91-57-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

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Semivolatiles by SW8270D GC/MS  
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Sample ID: I-104-090202  
SAMPLE

Lab Sample ID: OK85B  
LIMS ID: 09-3270  
Matrix: Water  
Date Analyzed: 02/06/09 15:43

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	68.4%	2-Fluorobiphenyl	70.0%
d14-p-Terphenyl	75.2%	d4-1,2-Dichlorobenzene	62.8%
d5-Phenol	35.7%	2-Fluorophenol	49.9%
2,4,6-Tribromophenol	76.5%	d4-2-Chlorophenol	68.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 16:17  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Date Analyzed: 02/06/09 16:17

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.0%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	87.2%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	37.1%	2-Fluorophenol	51.2%
2,4,6-Tribromophenol	80.5%	d4-2-Chlorophenol	72.0%

Sample ID: I-1044-090202  
SAMPLE

Lab Sample ID: OK85D  
LIMS ID: 09-3272  
Matrix: Water  
Data Release Authorized:   
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 16:52  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: I-1044-090202  
SAMPLE

Lab Sample ID: OK85D  
LIMS ID: 09-3272  
Matrix: Water  
Date Analyzed: 02/06/09 16:52

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	76.8%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	35.7%	2-Fluorophenol	49.3%
2,4,6-Tribromophenol	73.1%	d4-2-Chlorophenol	67.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-020409  
METHOD BLANK

Lab Sample ID: MB-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *AS*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 12:51  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-020409  
METHOD BLANK

Lab Sample ID: MB-020409  
LIMS ID: 09-3269  
Matrix: Water  
Date Analyzed: 02/06/09 12:51

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	69.2%	2-Fluorobiphenyl	71.2%
d14-p-Terphenyl	88.8%	d4-1,2-Dichlorobenzene	69.6%
d5-Phenol	41.9%	2-Fluorophenol	56.0%
2,4,6-Tribromophenol	73.6%	d4-2-Chlorophenol	73.3%

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-020409	69.2%	71.2%	88.8%	69.6%	41.9%	56.0%	73.6%	73.3%	0	
LCS-020409	70.8%	71.2%	83.6%	74.0%	42.9%	58.9%	75.2%	77.6%	0	
LCSD-020409	73.6%	74.8%	86.0%	75.2%	43.5%	60.0%	80.0%	79.5%	0	
PZ-7-090202	70.8%	72.4%	84.4%	67.2%	37.9%	51.7%	74.7%	72.3%	0	
I-104-090202	68.4%	70.0%	75.2%	62.8%	35.7%	49.9%	76.5%	68.5%	0	
PZ-1-090202	70.0%	73.6%	87.2%	65.6%	37.1%	51.2%	80.5%	72.0%	0	
I-1044-090202	66.0%	68.0%	76.8%	62.0%	35.7%	49.3%	73.1%	67.7%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(50-104)	(45-98)
(FBP) = 2-Fluorobiphenyl	(49-98)	(53-89)
(TPH) = d14-p-Terphenyl	(48-120)	(46-119)
(DCB) = d4-1,2-Dichlorobenzene	(40-92)	(41-87)
(PHL) = d5-Phenol	(20-62)	(10-66)
(2FP) = 2-Fluorophenol	(17-98)	(23-74)
(TBP) = 2,4,6-Tribromophenol	(56-110)	(51-105)
(2CP) = d4-2-Chlorophenol	(51-97)	(42-93)

Prep Method: SW3510C  
Log Number Range: 09-3269 to 09-3272

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-020409  
LCS/LCSD

Lab Sample ID: LCS-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted LCS/LCSD: 02/04/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/06/09 13:25

Final Extract Volume LCS: 0.50 mL

LCSD: 02/06/09 14:00

LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR

Dilution Factor LCS: 1.00

LCSD: NT4/LJR

LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	10.4	25.0	41.6%	10.8	25.0	43.2%	3.8%	
Bis-(2-Chloroethyl) Ether	20.3	25.0	81.2%	21.6	25.0	86.4%	6.2%	
2-Chlorophenol	20.0	25.0	80.0%	21.0	25.0	84.0%	4.9%	
1,3-Dichlorobenzene	19.4	25.0	77.6%	20.4	25.0	81.6%	5.0%	
1,4-Dichlorobenzene	19.4	25.0	77.6%	20.4	25.0	81.6%	5.0%	
Benzyl Alcohol	26.8	50.0	53.6%	28.7	50.0	57.4%	6.8%	
1,2-Dichlorobenzene	20.0	25.0	80.0%	21.5	25.0	86.0%	7.2%	
2-Methylphenol	19.5	25.0	78.0%	20.7	25.0	82.8%	6.0%	
2,2'-Oxybis(1-Chloropropane)	16.5	25.0	66.0%	17.4	25.0	69.6%	5.3%	
4-Methylphenol	38.6	50.0	77.2%	40.9	50.0	81.8%	5.8%	
N-Nitroso-Di-N-Propylamine	19.4	25.0	77.6%	20.4	25.0	81.6%	5.0%	
Hexachloroethane	19.7	25.0	78.8%	20.9	25.0	83.6%	5.9%	
Nitrobenzene	18.6	25.0	74.4%	20.1	25.0	80.4%	7.8%	
Isophorone	20.6	25.0	82.4%	22.1	25.0	88.4%	7.0%	
2-Nitrophenol	19.7	25.0	78.8%	21.6	25.0	86.4%	9.2%	
2,4-Dimethylphenol	17.6	25.0	70.4%	18.8	25.0	75.2%	6.6%	
Benzoic Acid	30.9	75.0	41.2%	33.9	75.0	45.2%	9.3%	
bis(2-Chloroethoxy) Methane	20.0	25.0	80.0%	21.9	25.0	87.6%	9.1%	
2,4-Dichlorophenol	20.2	25.0	80.8%	22.0	25.0	88.0%	8.5%	
1,2,4-Trichlorobenzene	18.8	25.0	75.2%	20.3	25.0	81.2%	7.7%	
Naphthalene	19.9	25.0	79.6%	21.4	25.0	85.6%	7.3%	
4-Chloroaniline	3.8	60.0	6.3%	4.2	60.0	7.0%	10.6%	
Hexachlorobutadiene	18.9	25.0	75.6%	20.3	25.0	81.2%	7.1%	
4-Chloro-3-methylphenol	20.3	25.0	81.2%	21.8	25.0	87.2%	7.1%	
2-Methylnaphthalene	19.8	25.0	79.2%	21.2	25.0	84.8%	6.8%	
Hexachlorocyclopentadiene	78.8	75.0	105%	84.3	75.0	112%	6.7%	
2,4,6-Trichlorophenol	20.2	25.0	80.8%	21.6	25.0	86.4%	6.7%	
2,4,5-Trichlorophenol	20.4	25.0	81.6%	21.0	25.0	84.0%	2.9%	
2-Chloronaphthalene	20.4	25.0	81.6%	21.8	25.0	87.2%	6.6%	
2-Nitroaniline	19.3	25.0	77.2%	20.6	25.0	82.4%	6.5%	
Dimethylphthalate	21.0	25.0	84.0%	22.5	25.0	90.0%	6.9%	
Acenaphthylene	20.9	25.0	83.6%	22.6	25.0	90.4%	7.8%	
3-Nitroaniline	40.3	64.0	63.0%	42.7	64.0	66.7%	5.8%	
Acenaphthene	20.3	25.0	81.2%	21.9	25.0	87.6%	7.6%	
2,4-Dinitrophenol	64.5	75.0	86.0%	71.5	75.0	95.3%	10.3%	
4-Nitrophenol	10.6	25.0	42.4%	11.5	25.0	46.0%	8.1%	
Dibenzofuran	20.5	25.0	82.0%	22.0	25.0	88.0%	7.1%	
2,6-Dinitrotoluene	20.6	25.0	82.4%	21.5	25.0	86.0%	4.3%	
2,4-Dinitrotoluene	20.4	25.0	81.6%	21.9	25.0	87.6%	7.1%	
Diethylphthalate	21.0	25.0	84.0%	22.3	25.0	89.2%	6.0%	
4-Chlorophenyl-phenylether	19.9	25.0	79.6%	21.3	25.0	85.2%	6.8%	
Fluorene	21.1	25.0	84.4%	22.4	25.0	89.6%	6.0%	
4-Nitroaniline	19.1	25.0	76.4%	20.6	25.0	82.4%	7.6%	
4,6-Dinitro-2-Methylphenol	67.0	75.0	89.3%	72.6	75.0	96.8%	8.0%	
N-Nitrosodiphenylamine	21.3	25.0	85.2%	22.8	25.0	91.2%	6.8%	

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-020409  
LCS/LCSD

Lab Sample ID: LCS-020409  
LIMS ID: 09-3269  
Matrix: Water  
Date Analyzed: 02/06/09 13:25

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	20.4	25.0	81.6%	21.6	25.0	86.4%	5.7%
Hexachlorobenzene	21.0	25.0	84.0%	22.4	25.0	89.6%	6.5%
Pentachlorophenol	20.8	25.0	83.2%	21.6	25.0	86.4%	3.8%
Phenanthrene	21.8	28.0	77.9%	23.2	28.0	82.9%	6.2%
Carbazole	21.6	25.0	86.4%	23.2	25.0	92.8%	7.1%
Anthracene	21.7	25.0	86.8%	22.9	25.0	91.6%	5.4%
Di-n-Butylphthalate	21.6	25.0	86.4%	23.1	25.0	92.4%	6.7%
Fluoranthene	20.3	25.0	81.2%	21.8	25.0	87.2%	7.1%
Pyrene	24.9	25.0	99.6%	25.7	25.0	103%	3.2%
Butylbenzylphthalate	23.3	25.0	93.2%	25.2	25.0	101%	7.8%
3,3'-Dichlorobenzidine	53.5	64.0	83.6%	59.1	64.0	92.3%	9.9%
Benzo(a)anthracene	21.7	25.0	86.8%	23.0	25.0	92.0%	5.8%
bis(2-Ethylhexyl)phthalate	21.8	25.0	87.2%	23.4	25.0	93.6%	7.1%
Chrysene	21.9	28.0	78.2%	23.6	28.0	84.3%	7.5%
Di-n-Octyl phthalate	21.2	25.0	84.8%	23.2	25.0	92.8%	9.0%
Benzo(b)fluoranthene	20.8	25.0	83.2%	21.4	25.0	85.6%	2.8%
Benzo(k)fluoranthene	22.0	28.0	78.6%	24.2	28.0	86.4%	9.5%
Benzo(a)pyrene	18.7	25.0	74.8%	20.1	25.0	80.4%	7.2%
Indeno(1,2,3-cd)pyrene	27.8	25.0	111%	29.5	25.0	118%	5.9%
Dibenz(a,h)anthracene	27.5	25.0	110%	29.3	25.0	117%	6.3%
Benzo(g,h,i)perylene	27.5	25.0	110%	29.0	25.0	116%	5.3%
1-Methylnaphthalene	21.1	25.0	84.4%	22.8	25.0	91.2%	7.7%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	70.8%	73.6%
2-Fluorobiphenyl	71.2%	74.8%
d14-p-Terphenyl	83.6%	86.0%
d4-1,2-Dichlorobenzene	74.0%	75.2%
d5-Phenol	42.9%	43.5%
2-Fluorophenol	58.9%	60.0%
2,4,6-Tribromophenol	75.2%	80.0%
d4-2-Chlorophenol	77.6%	79.5%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-6-8'-090202  
SAMPLE

Lab Sample ID: OK85AB  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 19:41  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.18 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	61	< 61 U
111-44-4	Bis-(2-Chloroethyl) Ether	61	< 61 U
95-57-8	2-Chlorophenol	61	< 61 U
541-73-1	1,3-Dichlorobenzene	61	< 61 U
106-46-7	1,4-Dichlorobenzene	61	< 61 U
100-51-6	Benzyl Alcohol	61	< 61 U
95-50-1	1,2-Dichlorobenzene	61	< 61 U
95-48-7	2-Methylphenol	61	< 61 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	61	< 61 U
106-44-5	4-Methylphenol	61	< 61 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	61	< 61 U
98-95-3	Nitrobenzene	61	< 61 U
78-59-1	Isophorone	61	< 61 U
88-75-5	2-Nitrophenol	61	< 61 U
105-67-9	2,4-Dimethylphenol	61	< 61 U
65-85-0	Benzoic Acid	610	< 610 U
111-91-1	bis(2-Chloroethoxy) Methane	61	< 61 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	61	< 61 U
91-20-3	Naphthalene	61	< 61 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	61	< 61 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	61	< 61 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	61	< 61 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	61	< 61 U
208-96-8	Acenaphthylene	61	< 61 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	61	< 61 U
51-28-5	2,4-Dinitrophenol	610	< 610 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	61	< 61 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

Lab Sample ID: OK85AB  
 LIMS ID: 09-3296  
 Matrix: Soil  
 Date Analyzed: 02/06/09 19:41

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	61	< 61 U
7005-72-3	4-Chlorophenyl-phenylether	61	< 61 U
86-73-7	Fluorene	61	< 61 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	610	< 610 U
86-30-6	N-Nitrosodiphenylamine	61	< 61 U
101-55-3	4-Bromophenyl-phenylether	61	< 61 U
118-74-1	Hexachlorobenzene	61	< 61 U
87-86-5	Pentachlorophenol	310	< 310 U
85-01-8	Phenanthrene	61	< 61 U
86-74-8	Carbazole	61	< 61 U
120-12-7	Anthracene	61	< 61 U
84-74-2	Di-n-Butylphthalate	61	< 61 U
206-44-0	Fluoranthene	61	< 61 U
129-00-0	Pyrene	61	< 61 U
85-68-7	Butylbenzylphthalate	61	< 61 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo(a)anthracene	61	< 61 U
117-81-7	bis(2-Ethylhexyl)phthalate	61	< 61 U
218-01-9	Chrysene	61	< 61 U
117-84-0	Di-n-Octyl phthalate	61	< 61 U
205-99-2	Benzo(b)fluoranthene	61	< 61 U
207-08-9	Benzo(k)fluoranthene	61	< 61 U
50-32-8	Benzo(a)pyrene	61	< 61 U
193-39-5	Indeno(1,2,3-cd)pyrene	61	< 61 U
53-70-3	Dibenz(a,h)anthracene	61	< 61 U
191-24-2	Benzo(g,h,i)perylene	61	< 61 U
90-12-0	1-Methylnaphthalene	61	< 61 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	72.0%
d14-p-Terphenyl	81.6%	d4-1,2-Dichlorobenzene	88.4%
d5-Phenol	62.4%	2-Fluorophenol	69.3%
2,4,6-Tribromophenol	93.6%	d4-2-Chlorophenol	74.4%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2



Sample ID: IDP-6-12'-090202  
SAMPLE

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 20:16  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.66 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	65	< 65 U
111-44-4	Bis-(2-Chloroethyl) Ether	65	< 65 U
95-57-8	2-Chlorophenol	65	< 65 U
541-73-1	1,3-Dichlorobenzene	65	< 65 U
106-46-7	1,4-Dichlorobenzene	65	< 65 U
100-51-6	Benzyl Alcohol	65	< 65 U
95-50-1	1,2-Dichlorobenzene	65	< 65 U
95-48-7	2-Methylphenol	65	< 65 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	65	< 65 U
106-44-5	4-Methylphenol	65	< 65 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	65	< 65 U
98-95-3	Nitrobenzene	65	< 65 U
78-59-1	Isophorone	65	< 65 U
88-75-5	2-Nitrophenol	65	< 65 U
105-67-9	2,4-Dimethylphenol	65	< 65 U
65-85-0	Benzoic Acid	650	< 650 U
111-91-1	bis(2-Chloroethoxy) Methane	65	< 65 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	65	< 65 U
91-20-3	Naphthalene	65	< 65 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	65	< 65 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	65	< 65 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	65	< 65 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	65	< 65 U
208-96-8	Acenaphthylene	65	< 65 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	65	< 65 U
51-28-5	2,4-Dinitrophenol	650	< 650 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	65	< 65 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

Lab Sample ID: OK85AC  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 20:16

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	65	< 65 U
7005-72-3	4-Chlorophenyl-phenylether	65	< 65 U
86-73-7	Fluorene	65	< 65 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	650	< 650 U
86-30-6	N-Nitrosodiphenylamine	65	< 65 U
101-55-3	4-Bromophenyl-phenylether	65	< 65 U
118-74-1	Hexachlorobenzene	65	< 65 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	65	< 65 U
86-74-8	Carbazole	65	< 65 U
120-12-7	Anthracene	65	< 65 U
84-74-2	Di-n-Butylphthalate	65	< 65 U
206-44-0	Fluoranthene	65	< 65 U
129-00-0	Pyrene	65	< 65 U
85-68-7	Butylbenzylphthalate	65	< 65 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo (a) anthracene	65	< 65 U
117-81-7	bis (2-Ethylhexyl) phthalate	65	< 65 U
218-01-9	Chrysene	65	< 65 U
117-84-0	Di-n-Octyl phthalate	65	< 65 U
205-99-2	Benzo (b) fluoranthene	65	< 65 U
207-08-9	Benzo (k) fluoranthene	65	< 65 U
50-32-8	Benzo (a) pyrene	65	< 65 U
193-39-5	Indeno (1,2,3-cd) pyrene	65	< 65 U
53-70-3	Dibenz (a,h) anthracene	65	< 65 U
191-24-2	Benzo (g,h,i) perylene	65	< 65 U
90-12-0	1-Methylnaphthalene	65	< 65 U

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	76.4%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	86.8%
d5-Phenol	55.7%	2-Fluorophenol	67.2%
2,4,6-Tribromophenol	88.8%	d4-2-Chlorophenol	72.5%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-6-12'-090202  
MATRIX SPIKE

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *WV*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 20:50  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.71 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	65	---
111-44-4	Bis-(2-Chloroethyl) Ether	65	---
95-57-8	2-Chlorophenol	65	---
541-73-1	1,3-Dichlorobenzene	65	---
106-46-7	1,4-Dichlorobenzene	65	---
100-51-6	Benzyl Alcohol	65	---
95-50-1	1,2-Dichlorobenzene	65	---
95-48-7	2-Methylphenol	65	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	65	---
106-44-5	4-Methylphenol	65	---
621-64-7	N-Nitroso-Di-N-Propylamine	320	---
67-72-1	Hexachloroethane	65	---
98-95-3	Nitrobenzene	65	---
78-59-1	Isophorone	65	---
88-75-5	2-Nitrophenol	65	---
105-67-9	2,4-Dimethylphenol	65	---
65-85-0	Benzoic Acid	650	---
111-91-1	bis(2-Chloroethoxy) Methane	65	---
120-83-2	2,4-Dichlorophenol	320	---
120-82-1	1,2,4-Trichlorobenzene	65	---
91-20-3	Naphthalene	65	---
106-47-8	4-Chloroaniline	320	---
87-68-3	Hexachlorobutadiene	65	---
59-50-7	4-Chloro-3-methylphenol	320	---
91-57-6	2-Methylnaphthalene	65	---
77-47-4	Hexachlorocyclopentadiene	320	---
88-06-2	2,4,6-Trichlorophenol	320	---
95-95-4	2,4,5-Trichlorophenol	320	---
91-58-7	2-Chloronaphthalene	65	---
88-74-4	2-Nitroaniline	320	---
131-11-3	Dimethylphthalate	65	---
208-96-8	Acenaphthylene	65	---
99-09-2	3-Nitroaniline	320	---
83-32-9	Acenaphthene	65	---
51-28-5	2,4-Dinitrophenol	650	---
100-02-7	4-Nitrophenol	320	---
132-64-9	Dibenzofuran	65	---
606-20-2	2,6-Dinitrotoluene	320	---
121-14-2	2,4-Dinitrotoluene	320	---

Sample ID: IDP-6-12'-090202  
 MATRIX SPIKE

Lab Sample ID: OK85AC  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 20:50

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	65	---
7005-72-3	4-Chlorophenyl-phenylether	65	---
86-73-7	Fluorene	65	---
100-01-6	4-Nitroaniline	320	---
534-52-1	4,6-Dinitro-2-Methylphenol	650	---
86-30-6	N-Nitrosodiphenylamine	65	---
101-55-3	4-Bromophenyl-phenylether	65	---
118-74-1	Hexachlorobenzene	65	---
87-86-5	Pentachlorophenol	320	---
85-01-8	Phenanthrene	65	---
86-74-8	Carbazole	65	---
120-12-7	Anthracene	65	---
84-74-2	Di-n-Butylphthalate	65	---
206-44-0	Fluoranthene	65	---
129-00-0	Pyrene	65	---
85-68-7	Butylbenzylphthalate	65	---
91-94-1	3,3'-Dichlorobenzidine	320	---
56-55-3	Benzo(a)anthracene	65	---
117-81-7	bis(2-Ethylhexyl)phthalate	65	---
218-01-9	Chrysene	65	---
117-84-0	Di-n-Octyl phthalate	65	---
205-99-2	Benzo(b)fluoranthene	65	---
207-08-9	Benzo(k)fluoranthene	65	---
50-32-8	Benzo(a)pyrene	65	---
193-39-5	Indeno(1,2,3-cd)pyrene	65	---
53-70-3	Dibenz(a,h)anthracene	65	---
191-24-2	Benzo(g,h,i)perylene	65	---
90-12-0	1-Methylnaphthalene	65	---

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	76.4%	2-Fluorobiphenyl	79.6%
d14-p-Terphenyl	83.6%	d4-1,2-Dichlorobenzene	86.0%
d5-Phenol	67.7%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	94.9%	d4-2-Chlorophenol	74.9%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-6-12'-090202  
MATRIX SPIKE DUPLICATE

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 21:25  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.71 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	65	---
111-44-4	Bis-(2-Chloroethyl) Ether	65	---
95-57-8	2-Chlorophenol	65	---
541-73-1	1,3-Dichlorobenzene	65	---
106-46-7	1,4-Dichlorobenzene	65	---
100-51-6	Benzyl Alcohol	65	---
95-50-1	1,2-Dichlorobenzene	65	---
95-48-7	2-Methylphenol	65	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	65	---
106-44-5	4-Methylphenol	65	---
621-64-7	N-Nitroso-Di-N-Propylamine	320	---
67-72-1	Hexachloroethane	65	---
98-95-3	Nitrobenzene	65	---
78-59-1	Isophorone	65	---
88-75-5	2-Nitrophenol	65	---
105-67-9	2,4-Dimethylphenol	65	---
65-85-0	Benzoic Acid	650	---
111-91-1	bis(2-Chloroethoxy) Methane	65	---
120-83-2	2,4-Dichlorophenol	320	---
120-82-1	1,2,4-Trichlorobenzene	65	---
91-20-3	Naphthalene	65	---
106-47-8	4-Chloroaniline	320	---
87-68-3	Hexachlorobutadiene	65	---
59-50-7	4-Chloro-3-methylphenol	320	---
91-57-6	2-Methylnaphthalene	65	---
77-47-4	Hexachlorocyclopentadiene	320	---
88-06-2	2,4,6-Trichlorophenol	320	---
95-95-4	2,4,5-Trichlorophenol	320	---
91-58-7	2-Chloronaphthalene	65	---
88-74-4	2-Nitroaniline	320	---
131-11-3	Dimethylphthalate	65	---
208-96-8	Acenaphthylene	65	---
99-09-2	3-Nitroaniline	320	---
83-32-9	Acenaphthene	65	---
51-28-5	2,4-Dinitrophenol	650	---
100-02-7	4-Nitrophenol	320	---
132-64-9	Dibenzofuran	65	---
606-20-2	2,6-Dinitrotoluene	320	---
121-14-2	2,4-Dinitrotoluene	320	---

Lab Sample ID: OK85AC  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 21:25

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	65	---
7005-72-3	4-Chlorophenyl-phenylether	65	---
86-73-7	Fluorene	65	---
100-01-6	4-Nitroaniline	320	---
534-52-1	4,6-Dinitro-2-Methylphenol	650	---
86-30-6	N-Nitrosodiphenylamine	65	---
101-55-3	4-Bromophenyl-phenylether	65	---
118-74-1	Hexachlorobenzene	65	---
87-86-5	Pentachlorophenol	320	---
85-01-8	Phenanthrene	65	---
86-74-8	Carbazole	65	---
120-12-7	Anthracene	65	---
84-74-2	Di-n-Butylphthalate	65	---
206-44-0	Fluoranthene	65	---
129-00-0	Pyrene	65	---
85-68-7	Butylbenzylphthalate	65	---
91-94-1	3,3'-Dichlorobenzidine	320	---
56-55-3	Benzo (a) anthracene	65	---
117-81-7	bis (2-Ethylhexyl) phthalate	65	---
218-01-9	Chrysene	65	---
117-84-0	Di-n-Octyl phthalate	65	---
205-99-2	Benzo (b) fluoranthene	65	---
207-08-9	Benzo (k) fluoranthene	65	---
50-32-8	Benzo (a) pyrene	65	---
193-39-5	Indeno (1,2,3-cd) pyrene	65	---
53-70-3	Dibenz (a,h) anthracene	65	---
191-24-2	Benzo (g,h,i) perylene	65	---
90-12-0	1-Methylnaphthalene	65	---

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	77.2%	d4-1,2-Dichlorobenzene	73.2%
d5-Phenol	60.5%	2-Fluorophenol	59.5%
2,4,6-Tribromophenol	87.7%	d4-2-Chlorophenol	66.9%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-020509  
METHOD BLANK

Lab Sample ID: MB-020509  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *WWW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/05/09  
Date Analyzed: 02/06/09 13:22  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-3	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

Lab Sample ID: MB-020509  
 LIMS ID: 09-3297  
 Matrix: Soil  
 Date Analyzed: 02/06/09 13:22

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo(a)anthracene	67	< 67 U
117-81-7	bis(2-Ethylhexyl)phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo(b)fluoranthene	67	< 67 U
207-08-9	Benzo(k)fluoranthene	67	< 67 U
50-32-8	Benzo(a)pyrene	67	< 67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67	< 67 U
53-70-3	Dibenz(a,h)anthracene	67	< 67 U
191-24-2	Benzo(g,h,i)perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	76.4%
d14-p-Terphenyl	87.6%	d4-1,2-Dichlorobenzene	86.8%
d5-Phenol	74.1%	2-Fluorophenol	72.3%
2,4,6-Tribromophenol	80.5%	d4-2-Chlorophenol	78.4%

**SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
IDP-6-8'-090202	77.6%	72.0%	81.6%	88.4%	62.4%	69.3%	93.6%	74.4%	0	
MB-020509	77.6%	76.4%	87.6%	86.8%	74.1%	72.3%	80.5%	78.4%	0	
LCS-020509	76.0%	78.0%	91.2%	86.0%	73.9%	73.9%	88.0%	77.3%	0	
LCSD-020509	75.6%	78.4%	90.4%	86.4%	73.6%	72.8%	88.3%	76.8%	0	
IDP-6-12'-090202	76.4%	68.8%	78.0%	86.8%	55.7%	67.2%	88.8%	72.5%	0	
IDP-6-12'-090202 MS	76.4%	79.6%	83.6%	86.0%	67.7%	67.7%	94.9%	74.9%	0	
IDP-6-12'-090202 MSD	66.0%	72.8%	77.2%	73.2%	60.5%	59.5%	87.7%	66.9%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546  
Log Number Range: 09-3296 to 09-3297

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 7.50 g  
LCSD: 7.50 g

Date Analyzed LCS: 02/06/09 13:56  
LCSD: 02/06/09 14:31

Final Extract Volume LCS: 0.5 mL  
LCSD: 0.5 mL

Instrument/Analyst LCS: NT6/LJR  
LCSD: NT6/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	LCSD		
Phenol	1310	1670	78.4%	1330	1670	79.6%	1.5%		
Bis-(2-Chloroethyl) Ether	1360	1670	81.4%	1380	1670	82.6%	1.5%		
2-Chlorophenol	1440	1670	86.2%	1460	1670	87.4%	1.4%		
1,3-Dichlorobenzene	1440	1670	86.2%	1480	1670	88.6%	2.7%		
1,4-Dichlorobenzene	1450	1670	86.8%	1460	1670	87.4%	0.7%		
Benzyl Alcohol	2250	3330	67.6%	2310	3330	69.4%	2.6%		
1,2-Dichlorobenzene	1440	1670	86.2%	1470	1670	88.0%	2.1%		
2-Methylphenol	1380	1670	82.6%	1380	1670	82.6%	0.0%		
2,2'-Oxybis(1-Chloropropane)	1400	1670	83.8%	1430	1670	85.6%	2.1%		
4-Methylphenol	2820	3330	84.7%	2840	3330	85.3%	0.7%		
N-Nitroso-Di-N-Propylamine	1430	1670	85.6%	1450	1670	86.8%	1.4%		
Hexachloroethane	1400	1670	83.8%	1430	1670	85.6%	2.1%		
Nitrobenzene	1360	1670	81.4%	1370	1670	82.0%	0.7%		
Isophorone	1430	1670	85.6%	1450	1670	86.8%	1.4%		
2-Nitrophenol	1590	1670	95.2%	1610	1670	96.4%	1.2%		
2,4-Dimethylphenol	1330	1670	79.6%	1340	1670	80.2%	0.7%		
Benzoic Acid	1590	5000	31.8%	1910	5000	38.2%	18.3%		
bis(2-Chloroethoxy) Methane	1420	1670	85.0%	1440	1670	86.2%	1.4%		
2,4-Dichlorophenol	1510	1670	90.4%	1540	1670	92.2%	2.0%		
1,2,4-Trichlorobenzene	1460	1670	87.4%	1520	1670	91.0%	4.0%		
Naphthalene	1520	1670	91.0%	1550	1670	92.8%	2.0%		
4-Chloroaniline	3270	4000	81.8%	3030	4000	75.8%	7.6%		
Hexachlorobutadiene	1500	1670	89.8%	1560	1670	93.4%	3.9%		
4-Chloro-3-methylphenol	1450	1670	86.8%	1510	1670	90.4%	4.1%		
2-Methylnaphthalene	1510	1670	90.4%	1530	1670	91.6%	1.3%		
Hexachlorocyclopentadiene	7380	5000	148%	7540	5000	151%	2.1%		
2,4,6-Trichlorophenol	1620	1670	97.0%	1610	1670	96.4%	0.6%		
2,4,5-Trichlorophenol	1580	1670	94.6%	1670	1670	100%	5.5%		
2-Chloronaphthalene	1760	1670	105%	1770	1670	106%	0.6%		
2-Nitroaniline	1560	1670	93.4%	1600	1670	95.8%	2.5%		
Dimethylphthalate	1520	1670	91.0%	1540	1670	92.2%	1.3%		
Acenaphthylene	1490	1670	89.2%	1500	1670	89.8%	0.7%		
3-Nitroaniline	4070	4270	95.3%	3860	4270	90.4%	5.3%		
Acenaphthene	1500	1670	89.8%	1510	1670	90.4%	0.7%		

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCSD-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3297  
Matrix: Soil

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Date Analyzed LCS: 02/06/09 13:56  
LCSD: 02/06/09 14:31

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	5790	5000	116%	6230	5000	125%	7.3%
4-Nitrophenol	1670	1670	100%	1610	1670	96.4%	3.7%
Dibenzofuran	1540	1670	92.2%	1540	1670	92.2%	0.0%
2,6-Dinitrotoluene	1680	1670	101%	1690	1670	101%	0.6%
2,4-Dinitrotoluene	1700	1670	102%	1740	1670	104%	2.3%
Diethylphthalate	1550	1670	92.8%	1580	1670	94.6%	1.9%
4-Chlorophenyl-phenylether	1620	1670	97.0%	1640	1670	98.2%	1.2%
Fluorene	1620	1670	97.0%	1620	1670	97.0%	0.0%
4-Nitroaniline	1620	1670	97.0%	1640	1670	98.2%	1.2%
4,6-Dinitro-2-Methylphenol	6990	5000	140%	7150	5000	143%	2.3%
N-Nitrosodiphenylamine	1610	1670	96.4%	1620	1670	97.0%	0.6%
4-Bromophenyl-phenylether	1600	1670	95.8%	1610	1670	96.4%	0.6%
Hexachlorobenzene	1580	1670	94.6%	1560	1670	93.4%	1.3%
Pentachlorophenol	1000	1670	59.9%	1010	1670	60.5%	1.0%
Phenanthrene	1640	1670	98.2%	1660	1670	99.4%	1.2%
Carbazole	1710	1670	102%	1710	1670	102%	0.0%
Anthracene	1660	1670	99.4%	1660	1670	99.4%	0.0%
Di-n-Butylphthalate	1790	1670	107%	1810	1670	108%	1.1%
Fluoranthene	1820	1670	109%	1850	1670	111%	1.6%
Pyrene	1670	1670	100%	1680	1670	101%	0.6%
Butylbenzylphthalate	1840	1670	110%	1840	1670	110%	0.0%
3,3'-Dichlorobenzidine	4370	4270	102%	4210	4270	98.6%	3.7%
Benzo(a)anthracene	1640	1670	98.2%	1630	1670	97.6%	0.6%
bis(2-Ethylhexyl)phthalate	1850	1670	111%	1880	1670	113%	1.6%
Chrysene	1480	1670	88.6%	1490	1670	89.2%	0.7%
Di-n-Octyl phthalate	1620	1670	97.0%	1610	1670	96.4%	0.6%
Benzo(b)fluoranthene	1830	1670	110%	1860	1670	111%	1.6%
Benzo(k)fluoranthene	1940	1670	116%	1950	1670	117%	0.5%
Benzo(a)pyrene	1550	1670	92.8%	1560	1670	93.4%	0.6%
Indeno(1,2,3-cd)pyrene	1880	1670	113%	1870	1670	112%	0.5%
Dibenz(a,h)anthracene	1820	1670	109%	1820	1670	109%	0.0%
Benzo(g,h,i)perylene	1780	1670	107%	1770	1670	106%	0.6%
1-Methylnaphthalene	1630	1670	97.6%	1670	1670	100%	2.4%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	76.0%	75.6%
2-Fluorobiphenyl	78.0%	78.4%
d14-p-Terphenyl	91.2%	90.4%
d4-1,2-Dichlorobenzene	86.0%	86.4%
d5-Phenol	73.9%	73.6%
2-Fluorophenol	73.9%	72.8%
2,4,6-Tribromophenol	88.0%	88.3%
d4-2-Chlorophenol	77.3%	76.8%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-6-12'-090202  
MS/MSD

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *MM*  
Reported: 02/11/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted MS/MSD: 02/05/09

Sample Amount MS: 7.71 g-dry-wt  
MSD: 7.71 g-dry-wt

Date Analyzed MS: 02/06/09 20:50  
MSD: 02/06/09 21:25

Final Extract Volume MS: 0.5 mL  
MSD: 0.5 mL

Instrument/Analyst MS: NT6/LJR  
MSD: NT6/LJR

Dilution Factor MS: 1.00  
MSD: 1.00

GPC Cleanup: NO

Percent Moisture: 15.1 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 65.3	1200	1620	74.1%	1090	1620	67.3%	9.6%
Bis-(2-Chloroethyl) Ether	< 65.3	1410	1620	87.0%	1200	1620	74.1%	16.1%
2-Chlorophenol	< 65.3	1370	1620	84.6%	1220	1620	75.3%	11.6%
1,3-Dichlorobenzene	< 65.3	1390	1620	85.8%	1240	1620	76.5%	11.4%
1,4-Dichlorobenzene	< 65.3	1410	1620	87.0%	1240	1620	76.5%	12.8%
Benzyl Alcohol	< 65.3	< 64.9 U	3240	NA	< 64.9 U	3240	NA	NA
1,2-Dichlorobenzene	< 65.3	1470	1620	90.7%	1270	1620	78.4%	14.6%
2-Methylphenol	< 65.3	1300	1620	80.2%	1190	1620	73.5%	8.8%
2,2'-Oxybis(1-Chloropropane	< 65.3	1410	1620	87.0%	1250	1620	77.2%	12.0%
4-Methylphenol	< 65.3	2660	3240	82.1%	2420	3240	74.7%	9.4%
N-Nitroso-Di-N-Propylamine	< 326	1390	1620	85.8%	1250	1620	77.2%	10.6%
Hexachloroethane	< 65.3	1250	1620	77.2%	1120	1620	69.1%	11.0%
Nitrobenzene	< 65.3	1300	1620	80.2%	1200	1620	74.1%	8.0%
Isophorone	< 65.3	1450	1620	89.5%	1310	1620	80.9%	10.1%
2-Nitrophenol	< 65.3	1530	1620	94.4%	1370	1620	84.6%	11.0%
2,4-Dimethylphenol	< 65.3	1240	1620	76.5%	1160	1620	71.6%	6.7%
Benzoic Acid	< 65.3	2910	4860	59.9%	2580	4860	53.1%	12.0%
bis(2-Chloroethoxy) Methane	< 65.3	1400	1620	86.4%	1260	1620	77.8%	10.5%
2,4-Dichlorophenol	< 326	1430	1620	88.3%	1300	1620	80.2%	9.5%
1,2,4-Trichlorobenzene	< 65.3	1450	1620	89.5%	1290	1620	79.6%	11.7%
Naphthalene	< 65.3	1530	1620	94.4%	1330	1620	82.1%	14.0%
4-Chloroaniline	< 326	2820	3890	72.5%	2500	3890	64.3%	12.0%
Hexachlorobutadiene	< 65.3	1500	1620	92.6%	1320	1620	81.5%	12.8%
4-Chloro-3-methylphenol	< 326	1500	1620	92.6%	1360	1620	84.0%	9.8%
2-Methylnaphthalene	< 65.3	1460	1620	90.1%	1340	1620	82.7%	8.6%
Hexachlorocyclopentadiene	< 326	3830	4860	78.8%	3460	4860	71.2%	10.2%
2,4,6-Trichlorophenol	< 326	1360	1620	84.0%	1200	1620	74.1%	12.5%
2,4,5-Trichlorophenol	< 326	1700	1620	105%	1680	1620	104%	1.2%
2-Chloronaphthalene	< 65.3	1730	1620	107%	1560	1620	96.3%	10.3%
2-Nitroaniline	< 326	1560	1620	96.3%	1450	1620	89.5%	7.3%
Dimethylphthalate	< 65.3	1540	1620	95.1%	1460	1620	90.1%	5.3%
Acenaphthylene	< 65.3	1460	1620	90.1%	1380	1620	85.2%	5.6%
3-Nitroaniline	< 326	3660	4150	88.2%	3560	4150	85.8%	2.8%
Acenaphthene	< 65.3	1470	1620	90.7%	1380	1620	85.2%	6.3%
2,4-Dinitrophenol	< 65.3	4280	4860	88.1%	4290	4860	88.3%	0.2%
4-Nitrophenol	< 326	527	1620	32.5%	431	1620	26.6%	20.0%
Dibenzofuran	< 65.3	1510	1620	93.2%	1420	1620	87.7%	6.1%
2,6-Dinitrotoluene	< 326	1650	1620	102%	1580	1620	97.5%	4.3%
2,4-Dinitrotoluene	< 326	1670	1620	103%	1610	1620	99.4%	3.7%
Diethylphthalate	< 65.3	1560	1620	96.3%	1480	1620	91.4%	5.3%
4-Chlorophenyl-phenylether	< 65.3	1600	1620	98.8%	1500	1620	92.6%	6.5%
Fluorene	< 65.3	1580	1620	97.5%	1490	1620	92.0%	5.9%
4-Nitroaniline	< 326	1420	1620	87.7%	1370	1620	84.6%	3.6%
4,6-Dinitro-2-Methylphenol	< 65.3	5500	4860	113%	5240	4860	108%	4.8%
N-Nitrosodiphenylamine	< 65.3	1610	1620	99.4%	1480	1620	91.4%	8.4%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-6-12'-090202  
MS/MSD

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Date Analyzed MS: 02/06/09 20:50  
MSD: 02/06/09 21:25

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 65.3	1580	1620	97.5%	1470	1620	90.7%	7.2%
Hexachlorobenzene	< 65.3	1560	1620	96.3%	1450	1620	89.5%	7.3%
Pentachlorophenol	< 326	2080	1620	128%	1900	1620	117%	9.0%
Phenanthrene	< 65.3	1670	1620	103%	1540	1620	95.1%	8.1%
Carbazole	< 65.3	1730	1620	107%	1620	1620	100%	6.6%
Anthracene	< 65.3	1690	1620	104%	1540	1620	95.1%	9.3%
Di-n-Butylphthalate	< 65.3	1840	1620	114%	1690	1620	104%	8.5%
Fluoranthene	< 65.3	1930	1620	119%	1830	1620	113%	5.3%
Pyrene	< 65.3	1570	1620	96.9%	1470	1620	90.7%	6.6%
Butylbenzylphthalate	< 65.3	1650	1620	102%	1550	1620	95.7%	6.2%
3,3'-Dichlorobenzidine	< 326	3290	4150	79.3%	3140	4150	75.7%	4.7%
Benzo(a)anthracene	< 65.3	1590	1620	98.1%	1490	1620	92.0%	6.5%
bis(2-Ethylhexyl)phthalate	< 65.3	1790	1620	110%	1690	1620	104%	5.7%
Chrysene	< 65.3	1470	1620	90.7%	1350	1620	83.3%	8.5%
Di-n-Octyl phthalate	< 65.3	1600	1620	98.8%	1490	1620	92.0%	7.1%
Benzo(b)fluoranthene	< 65.3	1790	1620	110%	1630	1620	101%	9.4%
Benzo(k)fluoranthene	< 65.3	2050	1620	127%	1950	1620	120%	5.0%
Benzo(a)pyrene	< 65.3	1550	1620	95.7%	1440	1620	88.9%	7.4%
Indeno(1,2,3-cd)pyrene	< 65.3	1710	1620	106%	1560	1620	96.3%	9.2%
Dibenz(a,h)anthracene	< 65.3	1670	1620	103%	1540	1620	95.1%	8.1%
Benzo(g,h,i)perylene	< 65.3	1500	1620	92.6%	1340	1620	82.7%	11.3%
1-Methylnaphthalene	< 65.3	1630	1620	101%	1460	1620	90.1%	11.0%

Results reported in µg/kg

RPD calculated using sample concentrations per SW846.

NA-No recovery due to high concentration of analyte in original sample and/or  
calculated negative recovery.

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-7-090202

Page 1 of 2

**SAMPLE**

Lab Sample ID: OK85A

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *mm*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 19:02

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.0</b>	<b>4.8</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-7-090202

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SAMPLE

Lab Sample ID: OK85A

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 19:02

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	106%
d8-Toluene	100%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	103%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: I-104-090202  
SAMPLE

Lab Sample ID: OK85B

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3270

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *mmw*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 19:28

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>0.2</b>	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	<b>Acetone</b>	<b>3.0</b>	<b>3.7</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
 Page 2 of 2

Sample ID: I-104-090202  
 SAMPLE



Lab Sample ID: OK85B

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3270

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 19:28

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	99.0%
d8-Toluene	98.8%
Bromofluorobenzene	104%
d4-1,2-Dichlorobenzene	102%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: PZ-1-090202

Page 1 of 2

SAMPLE

Lab Sample ID: OK85C

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3271

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *NW*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 19:53

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-1-090202

Page 2 of 2

SAMPLE

Lab Sample ID: OK85C

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3271

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 19:53

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	100%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	101%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: I-1044-090202

Page 1 of 2

SAMPLE

Lab Sample ID: OK85D

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3272

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *mm*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 20:18

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>3.0</b>	<b>3.4</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
 Page 2 of 2



Sample ID: I-1044-090202  
 SAMPLE

Lab Sample ID: OK85D  
 LIMS ID: 09-3272  
 Matrix: Water  
 Date Analyzed: 02/06/09 20:18

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	99.8%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TB

Page 1 of 2

SAMPLE

Lab Sample ID: OK85K

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3279

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *MW*

Date Sampled: 02/02/09

Reported: 02/10/09

Date Received: 02/02/09

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 12:44

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2Sample ID: TB  
SAMPLE

Lab Sample ID: OK85K

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3279

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 12:44

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

## Volatile Surrogate Recovery

d4-1,2-Dichloroethane	91.2%
d8-Toluene	99.5%
Bromofluorobenzene	95.0%
d4-1,2-Dichlorobenzene	103%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Page 1 of 2

Sample ID: MB-020609

METHOD BLANK



Lab Sample ID: MB-020609

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *WVW*

Date Sampled: NA

Reported: 02/10/09

Date Received: NA

Instrument/Analyst: NT7/PKC

Sample Amount: 20.0 mL

Date Analyzed: 02/06/09 11:40

Purge Volume: 20.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	3.0	< 3.0	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 2 of 2



Sample ID: MB-020609

METHOD BLANK

Lab Sample ID: MB-020609

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/06/09 11:40

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	93.2%
d8-Toluene	100%
Bromofluorobenzene	98.5%
d4-1,2-Dichlorobenzene	102%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-020609	Method Blank	20	93.2%	100%	98.5%	102%	0
LCS-020609	Lab Control	20	91.8%	100%	97.0%	99.2%	0
LCSD-020609	Lab Control Dup	20	94.0%	99.2%	100%	98.8%	0
OK85A	PZ-7-090202	20	106%	100%	102%	103%	0
OK85B	I-104-090202	20	99.0%	98.8%	104%	102%	0
OK85C	PZ-1-090202	20	102%	100%	101%	101%	0
OK85D	I-1044-090202	20	105%	99.8%	103%	102%	0
OK85K	TB	20	91.2%	99.5%	95.0%	103%	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane  
 (TOL) = d8-Toluene  
 (BFB) = Bromofluorobenzene  
 (DCB) = d4-1,2-Dichlorobenzene

70-131  
 80-120  
 74-121  
 80-120

64-146  
 78-125  
 71-120  
 80-121

Prep Method: SW5030B  
 Log Number Range: 09-3269 to 09-3279

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-020609

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020609

QC Report No: OK85-The Boeing Company

LIMS ID: 09-3269

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *MMW*

Date Sampled: NA

Reported: 02/10/09

Date Received: NA

Instrument/Analyst LCS: NT7/PKC

Sample Amount LCS: 20.0 mL

LCSID: NT7/PKC

LCSID: 20.0 mL

Date Analyzed LCS: 02/06/09 10:49

Purge Volume LCS: 20.0 mL

LCSID: 02/06/09 11:15

LCSID: 20.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSID	Spike Added-LCSID	LCSID Recovery	RPD
Chloromethane	2.8	4.0	70.0%	2.7	4.0	67.5%	3.6%
Bromomethane	3.9	4.0	97.5%	3.7	4.0	92.5%	5.3%
Vinyl Chloride	3.5	4.0	87.5%	3.5	4.0	87.5%	0.0%
Chloroethane	4.4	4.0	110%	4.4	4.0	110%	0.0%
Methylene Chloride	4.6	4.0	115%	4.5	4.0	112%	2.2%
Acetone	18.6	20.0	93.0%	18.4	20.0	92.0%	1.1%
Carbon Disulfide	4.1	4.0	102%	4.0	4.0	100%	2.5%
1,1-Dichloroethene	4.4	4.0	110%	4.4	4.0	110%	0.0%
1,1-Dichloroethane	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
trans-1,2-Dichloroethene	4.4	4.0	110%	4.2	4.0	105%	4.7%
cis-1,2-Dichloroethene	4.4	4.0	110%	4.2	4.0	105%	4.7%
Chloroform	4.0	4.0	100%	4.0	4.0	100%	0.0%
1,2-Dichloroethane	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
2-Butanone	20.0	20.0	100%	19.1	20.0	95.5%	4.6%
1,1,1-Trichloroethane	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
Carbon Tetrachloride	4.1	4.0	102%	3.9	4.0	97.5%	5.0%
Vinyl Acetate	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
Bromodichloromethane	4.3	4.0	108%	4.2	4.0	105%	2.4%
1,2-Dichloropropane	4.0	4.0	100%	3.9	4.0	97.5%	2.5%
cis-1,3-Dichloropropene	4.3	4.0	108%	4.2	4.0	105%	2.4%
Trichloroethene	4.0	4.0	100%	4.0	4.0	100%	0.0%
Dibromochloromethane	4.5	4.0	112%	4.3	4.0	108%	4.5%
1,1,2-Trichloroethane	4.2	4.0	105%	4.2	4.0	105%	0.0%
Benzene	4.1	4.0	102%	4.0	4.0	100%	2.5%
trans-1,3-Dichloropropene	3.9	4.0	97.5%	3.8	4.0	95.0%	2.6%
2-Chloroethylvinylether	4.0	4.0	100%	3.8	4.0	95.0%	5.1%
Bromoform	4.5	4.0	112%	4.0	4.0	100%	11.8%
4-Methyl-2-Pentanone (MIBK)	21.2	20.0	106%	20.0	20.0	100%	5.8%
2-Hexanone	16.6	20.0	83.0%	15.5	20.0	77.5%	6.9%
Tetrachloroethene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,1,2,2-Tetrachloroethane	4.2	4.0	105%	3.8	4.0	95.0%	10.0%
Toluene	4.2	4.0	105%	4.0	4.0	100%	4.9%
Chlorobenzene	4.2	4.0	105%	4.1	4.0	102%	2.4%
Ethylbenzene	4.3	4.0	108%	4.2	4.0	105%	2.4%
Styrene	4.3	4.0	108%	4.3	4.0	108%	0.0%
Trichlorofluoromethane	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,1,2-Trichloro-1,2,2-trifluoroethane	4.2	4.0	105%	4.1	4.0	102%	2.4%
m,p-Xylene	8.4	8.0	105%	8.3	8.0	104%	1.2%
o-Xylene	4.2	4.0	105%	4.1	4.0	102%	2.4%
1,2-Dichlorobenzene	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
1,3-Dichlorobenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,4-Dichlorobenzene	4.1	4.0	102%	3.8	4.0	95.0%	7.6%
Acrolein	20.6	20.0	103%	21.1	20.0	106%	2.4%
Methyl Iodide	4.5	4.0	112%	4.5	4.0	112%	0.0%
Bromoethane	4.2	4.0	105%	4.1	4.0	102%	2.4%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2



Sample ID: LCS-020609  
LAB CONTROL SAMPLE

Lab Sample ID: LCS-020609  
LIMS ID: 09-3269  
Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	3.9	4.0	97.5%	3.6	4.0	90.0%	8.0%
1,1-Dichloropropene	4.1	4.0	102%	4.0	4.0	100%	2.5%
Dibromomethane	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,1,1,2-Tetrachloroethane	4.2	4.0	105%	4.1	4.0	102%	2.4%
1,2-Dibromo-3-chloropropane	3.8	4.0	95.0%	3.6	4.0	90.0%	5.4%
1,2,3-Trichloropropane	4.7	4.0	118%	4.3	4.0	108%	8.9%
trans-1,4-Dichloro-2-butene	3.5	4.0	87.5%	3.2	4.0	80.0%	9.0%
1,3,5-Trimethylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,2,4-Trimethylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
Hexachlorobutadiene	3.9	4.0	97.5%	3.6	4.0	90.0%	8.0%
Ethylene Dibromide	4.3	4.0	108%	4.2	4.0	105%	2.4%
Bromochloromethane	4.2	4.0	105%	4.1	4.0	102%	2.4%
2,2-Dichloropropane	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
1,3-Dichloropropane	4.2	4.0	105%	4.1	4.0	102%	2.4%
Isopropylbenzene	4.1	4.0	102%	3.8	4.0	95.0%	7.6%
n-Propylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
Bromobenzene	4.3	4.0	108%	4.0	4.0	100%	7.2%
2-Chlorotoluene	4.1	4.0	102%	3.9	4.0	97.5%	5.0%
4-Chlorotoluene	4.2	4.0	105%	4.0	4.0	100%	4.9%
tert-Butylbenzene	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
sec-Butylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
4-Isopropyltoluene	4.3	4.0	108%	4.0	4.0	100%	7.2%
n-Butylbenzene	4.2	4.0	105%	4.0	4.0	100%	4.9%
1,2,4-Trichlorobenzene	4.2	4.0	105%	3.9	4.0	97.5%	7.4%
Naphthalene	4.1	4.0	102%	4.1	4.0	102%	0.0%
1,2,3-Trichlorobenzene	4.1	4.0	102%	4.0	4.0	100%	2.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	91.8%	94.0%
d8-Toluene	100%	99.2%
Bromofluorobenzene	97.0%	100%
d4-1,2-Dichlorobenzene	99.2%	98.8%

ORGANICS ANALYSIS DATA SHEET  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1  
 Matrix: Water

QC Report No: OK85-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

Data Release Authorized:   
 Reported: 02/06/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-020409 09-3269	Method Blank	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	79.6%
OK85A 09-3269	PZ-7-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	84.1%
OK85B 09-3270	I-104-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	86.5%
OK85C 09-3271	PZ-1-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	72.9%
OK85D 09-3272	I-1044-090202 HC ID: ---	02/04/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	84.8%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.  
 Diesel value based on the total peaks in the range from C12 to C24.  
 Oil value based on the total peaks in the range from C24 to C38.

HCID SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-020409	79.6%	0
LCS-020409	85.4%	0
LCSD-020409	84.8%	0
PZ-7-090202	84.1%	0
I-104-090202	86.5%	0
PZ-1-090202	72.9%	0
I-1044-090202	84.8%	0

LCS/MB LIMITS      QC LIMITS

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 09-3269 to 09-3272

ORGANICS ANALYSIS DATA SHEET  
NWTPH-HCID Method by GC/FID  
Page 1 of 1

Sample ID: LCS-020409  
LCS/LCSD

Lab Sample ID: LCS-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *AS*  
Reported: 02/06/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted LCS/LCSD: 02/04/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/06/09 01:52  
LCSD: 02/06/09 02:11

Final Extract Volume LCS: 1.0 mL  
LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS  
LCSD: FID/MS

Dilution Factor LCS: 1.00  
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.37	3.00	79.0%	2.34	3.00	78.0%	1.3%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	85.4%	84.8%

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

TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water  
Date Received: 02/02/09

ARI Job: OK85  
Project: BOEING ISAACSON  
025173.090

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
09-3269-020409MB	Method Blank	500 mL	1.00 mL	02/04/09
09-3269-020409LCS	Lab Control	500 mL	1.00 mL	02/04/09
09-3269-020409LCSD	Lab Control Dup	500 mL	1.00 mL	02/04/09
09-3269-OK85A	PZ-7-090202	500 mL	1.00 mL	02/04/09
09-3270-OK85B	I-104-090202	500 mL	1.00 mL	02/04/09
09-3271-OK85C	PZ-1-090202	500 mL	1.00 mL	02/04/09
09-3272-OK85D	I-1044-090202	500 mL	1.00 mL	02/04/09

ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: PZ-7-090202  
SAMPLE

Lab Sample ID: OK85A  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *mw*  
Reported: 02/09/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
Event: 025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/07/09 13:33  
Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 57.0%  
d14-Dibenzo(a,h)anthracene 71.7%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-104-090202

SAMPLE

Lab Sample ID: OK85B

LIMS ID: 09-3270

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 13:56

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 60.7%  
d14-Dibenzo(a,h)anthracene 80.0%

ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C

LIMS ID: 09-3271

Matrix: Water

Data Release Authorized: *mw*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 14:18

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	49.7%
d14-Dibenzo(a,h)anthracene	75.0%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-1044-090202

SAMPLE

Lab Sample ID: OK85D

LIMS ID: 09-3272

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 14:41

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 59.7%  
d14-Dibenzo(a,h)anthracene 79.7%

ORGANICS ANALYSIS DATA SHEET

PNA's by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: MB-020509

METHOD BLANK

Lab Sample ID: MB-020509

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 12:25

Instrument/Analyst: NT1/VTS

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 45.0%  
d14-Dibenzo(a,h)anthracene 83.3%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-020509	45.0%*	83.3%	1
LCS-020509	55.0%	82.7%	0
LCSD-020509	58.7%	87.3%	0
PZ-7-090202	57.0%	71.7%	0
I-104-090202	60.7%	80.0%	0
PZ-1-090202	49.7%	75.0%	0
I-1044-090202	59.7%	79.7%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(MNP) = d10-2-Methylnaphthalene	(49-113)	(44-112)
(DBA) = d14-Dibenzo(a,h)anthracene	(49-132)	(10-138)

Prep Method: SW3520C  
Log Number Range: 09-3269 to 09-3272

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-020509

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020509

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/09/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/07/09 12:48

Final Extract Volume LCS: 0.50 mL

LCSD: 02/07/09 13:11

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/VTS

Dilution Factor LCS: 1.00

LCSD: NT1/VTS

LCSD: 1.00

Analyte	LCS		LCS Recovery		LCSD		LCSD Recovery		RPD
	Concentration	Spike Added	Recovery %	Concentration	Spike Added	Recovery %	RPD		
Benzo(a)anthracene	2.40	3.00	80.0%	2.64	3.00	88.0%	9.5%		
Chrysene	2.44	3.00	81.3%	2.63	3.00	87.7%	7.5%		
Benzo(b)fluoranthene	2.63	3.00	87.7%	2.83	3.00	94.3%	7.3%		
Benzo(k)fluoranthene	2.68	3.00	89.3%	3.00	3.00	100%	11.3%		
Benzo(a)pyrene	2.47	3.00	82.3%	2.84	3.00	94.7%	13.9%		
Indeno(1,2,3-cd)pyrene	2.36	3.00	78.7%	2.54	3.00	84.7%	7.3%		
Dibenz(a,h)anthracene	2.41	3.00	80.3%	2.67	3.00	89.0%	10.2%		

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	55.0%	58.7%
d14-Dibenzo(a,h)anthracene	82.7%	87.3%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: IDP-6-8'-090202

SAMPLE

Lab Sample ID: OK85AB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: *mmw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 16:57

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	89.2%
Tetrachlorometaxylene	86.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-6-8'-090202  
MATRIX SPIKE

Lab Sample ID: OK85AB  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *VNW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/07/09 17:15  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	---
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	---
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.0%
Tetrachlorometaxylene	85.2%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: IDP-6-8'-090202

MATRIX SPIKE DUP

Lab Sample ID: OK85AB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: *MW*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 17:32

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 26.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	---
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	---
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	86.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-6-12'-090202  
SAMPLE

Lab Sample ID: OK85AC  
LIMS ID: 09-3297  
Matrix: Soil  
Data Release Authorized: *YMW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/05/09  
Date Analyzed: 02/07/09 17:49  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	86.2%
Tetrachlorometaxylene	77.2%



ORGANICS ANALYSIS DATA SHEET

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: MB-020509

METHOD BLANK

Lab Sample ID: MB-020509

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: *mmw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Date Extracted: 02/05/09

Date Analyzed: 02/07/09 16:06

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Acid Cleanup: Yes

Florisil Cleanup: No

Sample Amount: 12.0 g

Final Extract Volume: 4.0 mL

Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	82.8%
Tetrachlorometaxylene	79.0%

**SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-020509	82.8%	59-122	79.0%	61-118	0
LCS-020509	89.0%	59-122	85.0%	61-118	0
LCSD-020509	91.0%	59-122	88.0%	61-118	0
IDP-6-8'-090202	89.2%	40-139	86.5%	49-120	0
IDP-6-8'-090202 MS	88.0%	40-139	85.2%	49-120	0
IDP-6-8'-090202 MSD	88.5%	40-139	86.0%	49-120	0
IDP-6-12'-090202	86.2%	40-139	77.2%	49-120	0

Standard Sonication Control Limits  
Prep Method: SW3550B  
Log Number Range: 09-3296 to 09-3297

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-6-8'-090202  
MS/MSD

Lab Sample ID: OK85AB  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *WJW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted MS/MSD: 02/05/09  
Date Analyzed MS: 02/07/09 17:15  
MSD: 02/07/09 17:32  
Instrument/Analyst MS: ECD5/JGR  
MSD: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount MS: 12.6 g-dry-wt  
MSD: 12.6 g-dry-wt  
Final Extract Volume MS: 4.0 mL  
MSD: 4.0 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Silica Gel: No  
Percent Moisture: 26.0%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 31.8 U	139	159	87.4%	147	159	92.5%	5.6%
Aroclor 1260	< 31.8 U	146	159	91.8%	155	159	97.5%	6.0%

Results reported in µg/kg (ppb)  
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3296  
Matrix: Soil  
Data Release Authorized: *MW*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 12.0 g-dry-wt  
LCSD: 12.0 g-dry-wt

Date Analyzed LCS: 02/07/09 16:23  
LCSD: 02/07/09 16:40

Final Extract Volume LCS: 4.0 mL  
LCSD: 4.0 mL

Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Silica Gel: No

Percent Moisture: NA

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	LCSD		
Aroclor 1016	148	167	88.8%	153	167	91.8%	3.3%		
Aroclor 1260	163	167	97.8%	167	167	100%	2.4%		

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	89.0%	91.0%
Tetrachlorometaxylene	85.0%	88.0%

Results reported in µg/kg (ppb)  
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET

PCB by GC/ECD Method SW8082

Page 1 of 1



Sample ID: PZ-7-090202  
SAMPLE

Lab Sample ID: OK85A

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: *JWW*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/04/09

Date Analyzed: 02/06/09 16:23

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	97.0%
Tetrachlorometaxylene	76.8%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: I-104-090202

SAMPLE

Lab Sample ID: OK85B

LIMS ID: 09-3270

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/04/09

Date Analyzed: 02/06/09 16:40

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	82.8%
Tetrachlorometaxylene	73.8%

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Data Release Authorized: *mmw*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 16:57  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	98.2%
Tetrachlorometaxylene	88.0%

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: I-1044-090202

SAMPLE

Lab Sample ID: OK85D

LIMS ID: 09-3272

Matrix: Water

Data Release Authorized: *mw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Date Extracted: 02/04/09

Date Analyzed: 02/06/09 17:14

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: No

Sample Amount: 500 mL

Final Extract Volume: 5.0 mL

Dilution Factor: 1.00

Silica Gel: No

Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	69.8%
Tetrachlorometaxylene	72.8%

Sample ID: MB-020409  
METHOD BLANK

Lab Sample ID: MB-020409  
LIMS ID: 09-3269  
Matrix: Water  
Data Release Authorized: *mmw*  
Reported: 02/10/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/04/09  
Date Analyzed: 02/06/09 15:31  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	95.0%
Tetrachlorometaxylene	64.0%

**SW8082/PCB WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-020409	95.0%	47-101	64.0%	61-104	0
LCS-020409	95.2%	47-101	73.5%	61-104	0
LCSD-020409	96.5%	47-101	72.2%	61-104	0
PZ-7-090202	97.0%	42-120	76.8%	55-102	0
I-104-090202	82.8%	42-120	73.8%	55-102	0
PZ-1-090202	98.2%	42-120	88.0%	55-102	0
I-1044-090202	69.8%	42-120	72.8%	55-102	0

Prep Method: SW3510C  
Log Number Range: 09-3269 to 09-3272

**ORGANICS ANALYSIS DATA SHEET**

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-020409

LCS/LCSD

Lab Sample ID: LCS-020409

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: *mmw*

Reported: 02/10/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 02/04/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/06/09 15:48

Final Extract Volume LCS: 5.0 mL

LCSD: 02/06/09 16:05

LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/JGR

Dilution Factor LCS: 1.00

LCSD: ECD5/JGR

LCSD: 1.00

GPC Cleanup: No

Silica Gel: No

Sulfur Cleanup: No

Acid Cleanup: No

Analyte	Spike		LCS	LCSD	Spike		LCSD	RPD
	LCS	Added-LCS	Recovery		Added-LCSD	Recovery		
Aroclor 1016	4.50	5.00	90.0%	4.49	5.00	89.8%	0.2%	
Aroclor 1260	5.13	5.00	103%	5.06	5.00	101%	1.4%	

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	95.2%	96.5%
Tetrachlorometaxylene	73.5%	72.2%

Results reported in µg/L

RPD calculated using sample concentrations per SW846.

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-1-4'-090202

SAMPLE

Lab Sample ID: OK85L

LIMS ID: 09-3280

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	30	60	

U-Analyte undetected at given RL

RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

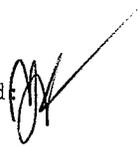
Sample ID: IDP-1A-9'-090202

SAMPLE

Lab Sample ID: OK85M

LIMS ID: 09-3281

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 76.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	186	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-1A-14'-090202  
SAMPLE

Lab Sample ID: OK85N

LIMS ID: 09-3282

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	9	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-2-4'-090202

**SAMPLE**

Lab Sample ID: OK850

LIMS ID: 09-3283

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	10	180	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-2-8'-090202  
SAMPLE

Lab Sample ID: OK85P

LIMS ID: 09-3284

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 80.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-2-11'-090202  
SAMPLE

Lab Sample ID: OK85Q

LIMS ID: 09-3285

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 77.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-3-4'-090202  
SAMPLE

Lab Sample ID: OK85R

LIMS ID: 09-3286

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 79.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	34	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-3-8'-090202

SAMPLE

Lab Sample ID: OK85S

LIMS ID: 09-3287

Matrix: Soil

Data Release Authorized 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 74.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	48	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-3-11'-090202

SAMPLE

Lab Sample ID: OK85T

LIMS ID: 09-3288

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 78.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-4-4'-090202  
SAMPLE

Lab Sample ID: OK85U

LIMS ID: 09-3289

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 81.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	15	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-4-8'-090202  
SAMPLE

Lab Sample ID: OK85V

LIMS ID: 09-3290

Matrix: Soil

Data Release Authorized 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 74.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	7	17	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-4-11'-090202  
SAMPLE

Lab Sample ID: OK85W

LIMS ID: 09-3291

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 77.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	6	U

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
TOTAL METALS  
Page 1 of 1

Sample ID: IDP-5-4'-090202  
SAMPLE

Lab Sample ID: OK85X  
LIMS ID: 09-3292  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Percent Total Solids: 84.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	60	60	U

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-5-8'-090202  
SAMPLE

Lab Sample ID: OK85Y

LIMS ID: 09-3293

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 76.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	333	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-5-11'-090202

SAMPLE

Lab Sample ID: OK85Z

LIMS ID: 09-3294

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 88.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	5	5	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-6-4'-090202

SAMPLE

Lab Sample ID: OK85AA

LIMS ID: 09-3295

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 86.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/13/09	7440-38-2	Arsenic	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-6-8'-090202  
SAMPLE

Lab Sample ID: OK85AB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 76.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	6	71	
3050B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	0.3	0.3	U
3050B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	0.6	19.2	
3050B	02/09/09	6010B	02/12/09	7440-50-8	Copper	0.3	26.9	
3050B	02/09/09	6010B	02/12/09	7439-92-1	Lead	3	3	
CLP	02/09/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.06	
3050B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	1	153	

U-Analyte undetected at given RL

RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: IDP-6-12'-090202

SAMPLE

Lab Sample ID: OK85AC

LIMS ID: 09-3297

Matrix: Soil

Data Release Authorized *[Signature]*

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Percent Total Solids: 85.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	5	5	U
3050B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	0.5	9.0	
3050B	02/09/09	6010B	02/12/09	7440-50-8	Copper	0.2	9.1	
3050B	02/09/09	6010B	02/12/09	7439-92-1	Lead	2	2	U
CLP	02/09/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.05	U
3050B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	1	20	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OK85MB

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/09/09	6010B	02/12/09	7440-38-2	Arsenic	5	5	U
3050B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	0.5	0.5	U
3050B	02/09/09	6010B	02/12/09	7440-50-8	Copper	0.2	0.2	U
3050B	02/09/09	6010B	02/12/09	7439-92-1	Lead	2	2	U
CLP	02/09/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.05	U
3050B	02/09/09	6010B	02/12/09	<b>7440-66-6</b>	<b>Zinc</b>	1	<b>3</b>	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OK85LCS

LIMS ID: 09-3296

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	198	200	99.0%	
Cadmium	6010B	49.5	50.0	99.0%	
Chromium	6010B	48.9	50.0	97.8%	
Copper	6010B	49.6	50.0	99.2%	
Lead	6010B	197	200	98.5%	
Mercury	7471A	1.12	1.00	112%	
Zinc	6010B	50	50	100%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: PZ-7-090202

SAMPLE

Lab Sample ID: OK85A

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.5	5.0	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	2	U
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: I-104-090202

SAMPLE

Lab Sample ID: OK85B

LIMS ID: 09-3270

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	2,130	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	13	
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	20	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: PZ-1-090202  
SAMPLE

Lab Sample ID: OK85C  
LIMS ID: 09-3271  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	7.1	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	17	
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	240	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: I-1044-090202

SAMPLE

Lab Sample ID: OK85D

LIMS ID: 09-3272

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	2,270	
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	7	
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-1A-GW-090202  
SAMPLE

Lab Sample ID: OK85E  
LIMS ID: 09-3273  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	77.7	

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-2-GW-090202  
SAMPLE

Lab Sample ID: OK85F  
LIMS ID: 09-3274  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	24.4	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-3-GW-090202

SAMPLE

Lab Sample ID: OK85G

LIMS ID: 09-3275

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/02/09

Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	12.0	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-4-GW-090202  
SAMPLE

Lab Sample ID: OK85H  
LIMS ID: 09-3276  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	2,360	

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-5-GW-090202  
SAMPLE

Lab Sample ID: OK85I  
LIMS ID: 09-3277  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	5	1,610	

U-Analyte undetected at given RL  
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: IDP-6-GW-090202  
SAMPLE

Lab Sample ID: OK85J  
LIMS ID: 09-3278  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OK85-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/02/09  
Date Received: 02/02/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/11/09	7440-38-2	Arsenic	1	346	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

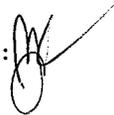
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OK85MB

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/09/09	200.8	02/10/09	7440-38-2	Arsenic	0.2	0.2	U
6010B	02/09/09	6010B	02/12/09	7440-43-9	Cadmium	2	2	U
6010B	02/09/09	6010B	02/12/09	7440-47-3	Chromium	5	5	U
6010B	02/09/09	6010B	02/12/09	7440-50-8	Copper	2	2	U
200.8	02/09/09	200.8	02/10/09	7439-92-1	Lead	1	1	U
7470A	02/09/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/09/09	6010B	02/12/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OK85LCS

LIMS ID: 09-3269

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OK85-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	26.8	25.0	107%	
Cadmium	6010B	532	500	106%	
Chromium	6010B	501	500	100%	
Copper	6010B	495	500	99.0%	
Lead	200.8	28	25	112%	
Mercury	7470A	1.9	2.0	95.0%	
Zinc	6010B	510	500	102%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%



## Analytical Resources, Incorporated

Analytical Chemists and Consultants

February 23, 2009

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Isaacson 025173**  
**ARI Job: OL03 and OL61**

Dear Kathryn:

Enclosed, please find e-mail documentation the original and a revised copy of the Chain-of-Custody (COC) record, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted ten soil samples and four water samples and a trip blank in good condition on February 3, 2009. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for Total Metals and Dissolved Metals, VOCs, PCBs, SVOCs, SIM cPAHs, HCID and NWTPH-Dx, as requested on the COC.

The VOCs water method blanks for 2/12/09 and 2/13/09 contained naphthalene and 1,2,3-Trichlorobenzene. All associated samples were non-detect for naphthalene and 1,2,3-Trichlorobenzene, therefore no further corrective action was taken.

The soil VOCs LCS and LCSD is out of control high for several analytes for the 2/9/09 and 2/10/09 analyses. No further corrective action was taken.

The HCID surrogate o-Terphenyl is out of control high for the LCSD. All associated samples were non-detect and all other surrogate recoveries are in control, therefore no further corrective action was taken.

The SVOCs soil LCS and LCSD for the 2/6/09 and 2/13/09 analyses are out of control both low and high for several analytes with wide RPDs for benzoic acid. No further corrective action was taken.

Samples IDP-8-3-090203 and IDP-6A-3-090203 were re-extracted and re-analyzed due to low surrogate recoveries. Both sets of data have been included for your review.

All associated water SVOCs samples were originally analyzed within the method recommended holding time for the analysis. The samples were re-extracted and re-analyzed outside of the method recommended holding time due to low surrogates and LCS and LCSD spike recoveries. Both sets of data have been included for your review.

The metals matrix spike on sample IDP-7-3-090203 is out of control both high and low for several analytes with wide sample duplicate RPDs for copper and zinc. All other QC is in control and no further corrective action was taken.



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

The dissolved metals matrix spike on sample IDP-8-GW-090203 is out of control high for arsenic. No further corrective action was taken.

The dissolved metals method blank contained arsenic. All associated sample arsenic concentrations were greater than ten times the concentration found in the method blank with the exception of sample IDP-9-GW-090203 which is pending client review.

There were no other anomalies associated with the analysis of these samples.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

KB/co

Enclosures



- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- \_\_\_\_\_

Date 2/3/09  
Page 1 of 1

# Chain-of-Custody Record

*NO 2/4/09*

Project Name: Boeing Isaacson Project No. 025173.090

Project Location/Event: Tukwila Phase II

Sampler's Name: Elizabeth Poole / Mark Brunner

Project Contact: Kathryn Hartley

Send Results To: K Hartley, K Hendrickson, A Halverson, Katie Lewis

Testing Parameters: TPH, HClD, Metals, VOCs, SVOCs, PCBs, G+H, PAHs (S+M), Dis Metals

Turnaround Time:  Standard  
 Accelerated  
 \_\_\_\_\_

Sample I.D.	Date	Time	Matrix	No. of Containers	TPH	HClD	Metals	VOCs	SVOCs	PCBs	G+H	PAHs (S+M)	Dis Metals	Observations/Comments
IDP-7-3-090203	2/3/09	930	S	6	X	X	X							<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input checked="" type="checkbox"/> preserved w/methanol <input checked="" type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal water samples field filtered  Other Metals: <u>As, Cd, Cr, Cu, Pb, Hg, Zn</u>
IDP-8-3-090203		900	S	7	X	X	X	X	X					
IDP-9-3-090203		1020		7	X	X	X	X	X					
IDP-10-2-090203		1050		6	X	X	X							
IDP-11-11-090203		1235		6	X	X	X							
IDP-12-12-090203		1200		7	X	X	X	X	X					
IDP-13-12-090203		1405		6	X	X	X							
IDP-14-11-090203		1330		7	X	X	X	X	X					
IDP-15-12-090203		1525	↓	6	X	X	X							
IDP-6A-3-090203		1540	↓	2	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>					
IDP-8-GW-090203		0943	Water	15	X	X	X	X		X	X			
IDP-9-GW-090203		1100	Water	15	X	X	X	X		X	X			
IDP-12-GW-090203		1230	Water	15	X	X	X	X		X	X			
IDP-14-GW-090203		1400	Water	15	X	X	X	X		X	X			
TIB				3			X							

Special Shipment/Handling or Storage Requirements: \_\_\_\_\_

Method of Shipment: \_\_\_\_\_

<b>Relinquished by</b> <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name <u>EA</u> Company Date <u>2/3/09</u> Time <u>1650</u>	<b>Received by</b> <u>Gami Hayes</u> Signature <u>Gami Hayes</u> Printed Name <u>AEI</u> Company Date <u>2/3/09</u> Time <u>1650</u>	<b>Relinquished by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____	<b>Received by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____
--	---	---	---

- Seattle (Edmonds) (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (Tigard) (503) 443-6010
- 



# Chain-of-Custody Record

NO 2/4/09

Date 2/3/09  
Page 1 of 1

Project Name: <u>Boeing Isacson</u> Project No. <u>025173.090</u>					Testing Parameters					Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/>				
Project Location/Event: <u>Tukwila Phase II</u>					<div style="display: flex; justify-content: space-around; font-size: small;"> <span>TPH/HCID</span> <span>Mutability</span> <span>VOCs</span> <span>SVOCs</span> <span>ROBBS</span> <span>SEM/EDS</span> <span>SPAHs (SOA)</span> <span>DB Metals</span> </div>									
Sampler's Name: <u>Elizabeth Poole / Mark Brunner</u>														
Project Contact: <u>Kathryn Bentley</u>														
Send Results To: <u>R. Hunkly, K. Hunschleson, A. Halverson, Katie Lewis</u>														
Sample I.D.	Date	Time	Matrix	No. of Containers	TPH/HCID	Mutability	VOCs	SVOCs	ROBBS	SEM/EDS	SPAHs (SOA)	DB Metals	Observations/Comments	
IDP-7-3-090203	2/3/09	930	S	6	X	X	X						<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion.  NWTPH-Dx: <input checked="" type="checkbox"/> run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input checked="" type="checkbox"/> preserved w/methanol <input checked="" type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input checked="" type="checkbox"/> Dissolved metal water samples field filtered  Other Metals: <u>As, Cd, Cr, Cu, Pb, Hg, Zn</u>	
IDP-8-3-090203		900	S	7	X	X	X	X	X					
IDP-9-3-090203		1020		7	X	X	X	X	X					
IDP-10-2-090203		1050		6	X	X	X							
IDP-11-11-090203		1235		6	X	X	X							
IDP-12-12-090203		1200		7	X	X	X	X	X					
IDP-13-12-090203		1405		6	X	X	X							
IDP-14-11-090203		1330		7	X	X	X	X	X					
IDP-15-12-090203		1525	↓	6	X	X	X							
IDP-6A-3-090203		1540	↓	2	X	X	X	X	X					
IDP-8-GW-090203		0943	Water	15	X	X	X	X	X	X	X			
IDP-9-GW-090203		1100	Water	15	X	X	X	X	X	X	X			
IDP-12-GW-090203		1230	Water	15	X	X	X	X	X	X	X			
IDP-14-GW-090203		1400	Water	15	X	X	X	X	X	X	X			
11B				3		X								
Special Shipment/Handling or Storage Requirements										Method of Shipment				
Relinquished by <u>Elizabeth Poole</u> Signature <u>Elizabeth Poole</u> Printed Name LAI Company Date <u>2/3/09</u> Time <u>1650</u>					Received by <u>Gami Hayes</u> Signature <u>Gami Hayes</u> Printed Name LAI Company Date <u>2/3/09</u> Time <u>1650</u>					Relinquished by Signature Printed Name Company Date _____ Time _____				
										Received by Signature Printed Name Company Date _____ Time _____				

WHITE COPY - Project File

YELLOW COPY - Laboratory

PINK COPY - Client Representative

**Eric Branson**

---

**From:** "Kelly Bottem" <kellyb@arilabs.com>  
**To:** "Eric Branson" <eric@arilabs.com>  
**Sent:** Friday, February 06, 2009 4:13 PM  
**Subject:** Change order

Kelly,

Please run sample IDP-10-2-090203 (ARI sample # OL03D) for NWTPH-Dx.

Thank you,

Kathryn F. Hartley

Project Scientist

Landau Associates

130 2nd Avenue South

Edmonds, WA 98020

(425) 329-0268

-----Original Message-----

**From:** Kelly Bottem [mailto:kellyb@arilabs.com]  
**Sent:** Friday, February 06, 2009 3:47 PM  
**To:** Lewis, Kathryn L; Kathryn Hartley; Anne Halvorsen; Kris  
Hendrickson  
**Subject:** Re: OL03 rush HCID for Isaacson With the corrected COC.

Sent the first set without the corrected COC.

Have a great weekend.

K



# Cooler Receipt Form

ARI Client: Landaw Boeing  
COC No: \_\_\_\_\_  
Assigned ARI Job No: 0103

Project Name: Boeing Isaacson  
Delivered by: Hadd  
Tracking No: \_\_\_\_\_

### Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? ..... YES  NO
- Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry) ..... 4.8, 2.4, 1.4, 6.0 °C

Cooler Accepted by: JH Date: 2/3/09 Time: 11:50

**Complete custody forms and attach all shipping documents**

### Log-In Phase:

- Was a temperature blank included in the cooler? ..... YES  NO
- What kind of packing material was used? ..... BW
- Was sufficient ice used (if appropriate)? ..... YES  NO
- Were all bottles sealed in individual plastic bags? ..... YES  NO
- Did all bottle arrive in good condition (unbroken)? ..... YES  NO
- Were all bottle labels complete and legible? ..... YES  NO
- Did all bottle labels and tags agree with custody papers? ..... YES  NO
- Were all bottles used correct for the requested analyses? ..... YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) ..... YES  NO
- Were all VOC vials free of air bubbles? ..... NA YES  NO
- Was sufficient amount of sample sent in each bottle? ..... YES  NO

Samples Logged by: MM Date: 2/4/09 Time: 8:40

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

### Explain discrepancies or negative responses:

Sample TB, was observed to have Peusize bubbles in 1 of 3 vials  
Sample 1BP-14-GW-040203 and 1BP-8-GW-040202  
were observed to have Peasize and small bubbles in  
1 of 5 vials vespctively

Added Sim for cpAHS  
JB 2/4/09

By: MM Date: 2-4-09

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-8-GW-090203  
SAMPLE

Lab Sample ID: OL03K  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 14:33  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-8-GW-090203  
SAMPLE

Lab Sample ID: OL03K  
LIMS ID: 09-3401  
Matrix: Water  
Date Analyzed: 02/10/09 14:33

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	36.8%	2-Fluorobiphenyl	42.4%
d14-p-Terphenyl	64.4%	d4-1,2-Dichlorobenzene	27.0%
d5-Phenol	17.1%	2-Fluorophenol	19.4%
2,4,6-Tribromophenol	62.1%	d4-2-Chlorophenol	34.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-8-GW-090203  
SAMPLE

Lab Sample ID: OL03K  
LIMS ID: 09-4560  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL03-The Boeing Company  
Project: TUKWILA/PHASE II  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 13:19  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

Lab Sample ID: OL03K  
 LIMS ID: 09-4560  
 Matrix: Water  
 Date Analyzed: 02/14/09 13:19

QC Report No: OL03-The Boeing Company  
 Project: TUKWILA/PHASE II  
 025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	77.2%
d14-p-Terphenyl	46.8%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	66.9%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	86.9%	d4-2-Chlorophenol	70.7%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-9-GW-090203  
SAMPLE

Lab Sample ID: OL03L  
LIMS ID: 09-3402  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 15:07  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-9-GW-090203  
SAMPLE

Lab Sample ID: OL03L  
LIMS ID: 09-3402  
Matrix: Water  
Date Analyzed: 02/10/09 15:07

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	60.0%	2-Fluorobiphenyl	56.0%
d14-p-Terphenyl	73.6%	d4-1,2-Dichlorobenzene	57.2%
d5-Phenol	12.9%	2-Fluorophenol	24.1%
2,4,6-Tribromophenol	58.7%	d4-2-Chlorophenol	51.2%

Sample ID: IDP-9-GW-090203  
SAMPLE

Lab Sample ID: OL03L  
LIMS ID: 09-4561  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL03-The Boeing Company  
Project: TUKWILA/PHASE II  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 13:54  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-9-GW-090203  
SAMPLE

Lab Sample ID: OL03L  
LIMS ID: 09-4561  
Matrix: Water  
Date Analyzed: 02/14/09 13:54

QC Report No: OL03-The Boeing Company  
Project: TUKWILA/PHASE II  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	81.6%	2-Fluorobiphenyl	80.0%
d14-p-Terphenyl	83.2%	d4-1,2-Dichlorobenzene	72.4%
d5-Phenol	75.2%	2-Fluorophenol	74.9%
2,4,6-Tribromophenol	82.1%	d4-2-Chlorophenol	77.1%

Sample ID: IDP-12-GW-090203  
SAMPLE

Lab Sample ID: OL03M  
LIMS ID: 09-3403  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 15:42  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-12-GW-090203  
SAMPLE

Lab Sample ID: OL03M  
LIMS ID: 09-3403  
Matrix: Water  
Date Analyzed: 02/10/09 15:42

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	21.5%	2-Fluorobiphenyl	20.4%
d14-p-Terphenyl	35.9%	d4-1,2-Dichlorobenzene	19.6%
d5-Phenol	6.1%	2-Fluorophenol	9.5%
2,4,6-Tribromophenol	28.0%	d4-2-Chlorophenol	19.0%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2



Sample ID: IDP-12-GW-090203  
SAMPLE

Lab Sample ID: OL03M  
LIMS ID: 09-4562  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL03-The Boeing Company  
Project: TUKWILA/PHASE II  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 14:29  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

Lab Sample ID: OL03M  
 LIMS ID: 09-4562  
 Matrix: Water  
 Date Analyzed: 02/14/09 14:29

QC Report No: OL03-The Boeing Company  
 Project: TUKWILA/PHASE II  
 025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	74.0%	d4-1,2-Dichlorobenzene	57.6%
d5-Phenol	61.1%	2-Fluorophenol	59.7%
2,4,6-Tribromophenol	78.4%	d4-2-Chlorophenol	62.4%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-14-GW-090203  
SAMPLE

Lab Sample ID: OL03N  
LIMS ID: 09-3404  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 16:16  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

Lab Sample ID: OL03N  
 LIMS ID: 09-3404  
 Matrix: Water  
 Date Analyzed: 02/10/09 16:16

QC Report No: OL03-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	40.8%	2-Fluorobiphenyl	44.8%
d14-p-Terphenyl	74.8%	d4-1,2-Dichlorobenzene	32.7%
d5-Phenol	17.8%	2-Fluorophenol	23.2%
2,4,6-Tribromophenol	74.7%	d4-2-Chlorophenol	38.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-14-GW-090203  
SAMPLE

Lab Sample ID: OL03N

QC Report No: OL03-The Boeing Company

LIMS ID: 09-4563

Project: TUKWILA/PHASE II

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/20/09

Date Received: 02/03/09

Date Extracted: 02/16/09

Sample Amount: 500 mL

Date Analyzed: 02/20/09 00:38

Final Extract Volume: 0.50 mL

Instrument/Analyst: NT4/LJR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

Lab Sample ID: OL03N  
 LIMS ID: 09-4563  
 Matrix: Water  
 Date Analyzed: 02/20/09 00:38

QC Report No: OL03-The Boeing Company  
 Project: TUKWILA/PHASE II  
 025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
<b>117-81-7</b>	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>20</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	67.2%	2-Fluorobiphenyl	69.2%
d14-p-Terphenyl	74.8%	d4-1,2-Dichlorobenzene	54.8%
d5-Phenol	68.3%	2-Fluorophenol	65.1%
2,4,6-Tribromophenol	78.9%	d4-2-Chlorophenol	67.5%

Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 12:49  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3401  
Matrix: Water  
Date Analyzed: 02/10/09 12:49

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	58.4%
d14-p-Terphenyl	83.6%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	30.7%	2-Fluorophenol	45.6%
2,4,6-Tribromophenol	70.9%	d4-2-Chlorophenol	69.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209  
LIMS ID: 09-4560  
Matrix: Water  
Data Release Authorized: **VTS**  
Reported: 02/17/09

QC Report No: OL03-The Boeing Company  
Project: TUKWILA/PHASE II  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 11:35  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U



Lab Sample ID: MB-021209  
 LIMS ID: 09-4560  
 Matrix: Water  
 Date Analyzed: 02/14/09 11:35

QC Report No: OL03-The Boeing Company  
 Project: TUKWILA/PHASE II  
 025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	72.0%	2-Fluorophenol	70.9%
2,4,6-Tribromophenol	74.9%	d4-2-Chlorophenol	74.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-021609  
METHOD BLANK

Lab Sample ID: MB-021609  
LIMS ID: 09-3404  
Matrix: Water  
Data Release Authorized:   
Reported: 02/20/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/16/09  
Date Analyzed: 02/19/09 18:52  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-021609  
METHOD BLANK

Lab Sample ID: MB-021609  
LIMS ID: 09-3404  
Matrix: Water  
Date Analyzed: 02/19/09 18:52

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	75.6%	2-Fluorobiphenyl	71.2%
d14-p-Terphenyl	104%	d4-1,2-Dichlorobenzene	59.6%
d5-Phenol	75.7%	2-Fluorophenol	71.2%
2,4,6-Tribromophenol	70.4%	d4-2-Chlorophenol	75.2%

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-020609	62.8%	58.4%	83.6%	64.4%	30.7%*	45.6%*	70.9%	69.1%	2	
LCS-020609	67.2%	67.6%	78.4%	69.2%	33.3%*	48.5%*	80.3%	75.2%	2	
LCSD-020609	63.2%	69.6%	84.4%	65.2%	32.0%*	45.6%*	85.9%	69.9%	2	
IDP-8-GW-090203	36.8%*	42.4%	64.4%	27.0%*	17.1%*	19.4%*	62.1%	34.9%*	5	
IDP-9-GW-090203	60.0%	56.0%	73.6%	57.2%	12.9%*	24.1%*	58.7%	51.2%	2	
IDP-12-GW-090203	21.5%*	20.4%*	35.9%	19.6%*	6.1%*	9.5%*	28.0%*	19.0%*	7	
MB-021609	75.6%	71.2%	104%	59.6%	75.7%	71.2%	70.4%	75.2%	0	
LCS-021609	81.2%	77.2%	94.8%	72.0%	81.6%	76.5%	84.8%	79.7%	0	
LCSD-021609	80.8%	80.0%	96.4%	61.6%	81.1%	73.1%	84.0%	76.8%	0	
IDP-14-GW-090203	40.8%	44.8%	74.8%	32.7%	17.8%*	23.2%*	74.7%	38.9%*	3	
MB-021209	74.8%	70.4%	82.4%	61.2%	72.0%	70.9%	74.9%	74.1%	0	
LCS-021209	76.0%	71.2%	90.0%	65.6%	79.2%	72.5%	93.1%	75.5%	0	
LCSD-021209	70.0%	75.2%	82.0%	59.2%	67.7%	63.7%	90.9%	65.6%	0	
IDP-8-GW-090203	74.8%	77.2%	46.8%	65.6%	66.9%	67.7%	86.9%	70.7%	0	
IDP-9-GW-090203	81.6%	80.0%	83.2%	72.4%	75.2%	74.9%	82.1%	77.1%	0	
IDP-12-GW-090203	66.0%	68.4%	74.0%	57.6%	61.1%	59.7%	78.4%	62.4%	0	
IDP-14-GW-090203	67.2%	69.2%	74.8%	54.8%	68.3%	65.1%	78.9%	67.5%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C  
Log Number Range: 09-3401 to 09-4563

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted LCS/LCSD: 02/06/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/10/09 13:24  
LCSD: 02/10/09 13:59

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	7.5	25.0	30.0%	7.2	25.0	28.8%	3.0%
Bis-(2-Chloroethyl) Ether	18.7	25.0	74.8%	17.9	25.0	71.6%	4.4%
2-Chlorophenol	18.1	25.0	72.4%	16.9	25.0	67.6%	6.9%
1,3-Dichlorobenzene	16.7	25.0	66.8%	16.1	25.0	64.4%	3.7%
1,4-Dichlorobenzene	16.6	25.0	66.4%	16.2	25.0	64.8%	2.4%
Benzyl Alcohol	18.2	50.0	36.4%	18.3	50.0	36.6%	0.5%
1,2-Dichlorobenzene	17.6	25.0	70.4%	17.0	25.0	68.0%	3.5%
2-Methylphenol	16.1	25.0	64.4%	15.6	25.0	62.4%	3.2%
2,2'-Oxybis(1-Chloropropane)	14.3	25.0	57.2%	13.8	25.0	55.2%	3.6%
4-Methylphenol	30.9	50.0	61.8%	30.7	50.0	61.4%	0.6%
N-Nitroso-Di-N-Propylamine	16.5	25.0	66.0%	16.4	25.0	65.6%	0.6%
Hexachloroethane	16.6	25.0	66.4%	16.2	25.0	64.8%	2.4%
Nitrobenzene	16.2	25.0	64.8%	15.7	25.0	62.8%	3.1%
Isophorone	17.8	25.0	71.2%	18.1	25.0	72.4%	1.7%
2-Nitrophenol	18.4	25.0	73.6%	17.8	25.0	71.2%	3.3%
2,4-Dimethylphenol	12.9	25.0	51.6%	12.5	25.0	50.0%	3.1%
Benzoic Acid	28.2	75.0	37.6%	29.6	75.0	39.5%	4.8%
bis(2-Chloroethoxy) Methane	17.7	25.0	70.8%	17.6	25.0	70.4%	0.6%
2,4-Dichlorophenol	18.4	25.0	73.6%	18.0	25.0	72.0%	2.2%
1,2,4-Trichlorobenzene	16.4	25.0	65.6%	16.0	25.0	64.0%	2.5%
Naphthalene	17.8	25.0	71.2%	17.3	25.0	69.2%	2.8%
4-Chloroaniline	< 5.0	60.0	NA%	< 5.0	60.0	NA%	NA
Hexachlorobutadiene	16.1	25.0	64.4%	15.5	25.0	62.0%	3.8%
4-Chloro-3-methylphenol	18.5	25.0	74.0%	19.1	25.0	76.4%	3.2%
2-Methylnaphthalene	18.3	25.0	73.2%	18.1	25.0	72.4%	1.1%
Hexachlorocyclopentadiene	45.9	75.0	61.2%	45.8	75.0	61.1%	0.2%
2,4,6-Trichlorophenol	17.3	25.0	69.2%	18.1	25.0	72.4%	4.5%
2,4,5-Trichlorophenol	18.2	25.0	72.8%	18.4	25.0	73.6%	1.1%
2-Chloronaphthalene	17.5	25.0	70.0%	17.9	25.0	71.6%	2.3%
2-Nitroaniline	16.7	25.0	66.8%	17.6	25.0	70.4%	5.2%
Dimethylphthalate	19.1	25.0	76.4%	20.4	25.0	81.6%	6.6%
Acenaphthylene	18.3	25.0	73.2%	19.0	25.0	76.0%	3.8%
3-Nitroaniline	17.7	64.0	27.7%	19.7	64.0	30.8%	10.7%
Acenaphthene	17.9	25.0	71.6%	18.4	25.0	73.6%	2.8%
2,4-Dinitrophenol	75.8	75.0	101%	85.7	75.0	114%	12.3%
4-Nitrophenol	9.6	25.0	38.4%	10.2	25.0	40.8%	6.3%
Dibenzofuran	18.4	25.0	73.6%	19.4	25.0	77.6%	5.3%
2,6-Dinitrotoluene	18.6	25.0	74.4%	19.8	25.0	79.2%	6.2%
2,4-Dinitrotoluene	19.7	25.0	78.8%	21.1	25.0	84.4%	6.9%
Diethylphthalate	19.1	25.0	76.4%	20.7	25.0	82.8%	8.0%
4-Chlorophenyl-phenylether	18.0	25.0	72.0%	19.0	25.0	76.0%	5.4%
Fluorene	19.2	25.0	76.8%	20.1	25.0	80.4%	4.6%
4-Nitroaniline	17.6	25.0	70.4%	18.7	25.0	74.8%	6.1%
4,6-Dinitro-2-Methylphenol	68.3	75.0	91.1%	76.8	75.0	102%	11.7%
N-Nitrosodiphenylamine	16.9	25.0	67.6%	18.1	25.0	72.4%	6.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3401  
Matrix: Water  
Date Analyzed: 02/10/09 13:24

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	16.8	25.0	67.2%	18.1	25.0	72.4%	7.4%
Hexachlorobenzene	17.2	25.0	68.8%	18.4	25.0	73.6%	6.7%
Pentachlorophenol	18.7	25.0	74.8%	20.5	25.0	82.0%	9.2%
Phenanthrene	18.8	28.0	67.1%	20.0	28.0	71.4%	6.2%
Carbazole	19.9	25.0	79.6%	21.4	25.0	85.6%	7.3%
Anthracene	18.3	25.0	73.2%	19.5	25.0	78.0%	6.3%
Di-n-Butylphthalate	19.3	25.0	77.2%	20.8	25.0	83.2%	7.5%
Fluoranthene	19.0	25.0	76.0%	20.3	25.0	81.2%	6.6%
Pyrene	19.7	25.0	78.8%	21.4	25.0	85.6%	8.3%
Butylbenzylphthalate	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
3,3'-Dichlorobenzidine	34.0	64.0	53.1%	41.0	64.0	64.1%	18.7%
Benzo(a)anthracene	18.5	25.0	74.0%	20.2	25.0	80.8%	8.8%
bis(2-Ethylhexyl)phthalate	19.8	25.0	79.2%	22.0	25.0	88.0%	10.5%
Chrysene	18.6	28.0	66.4%	19.8	28.0	70.7%	6.2%
Di-n-Octyl phthalate	18.4	25.0	73.6%	19.9	25.0	79.6%	7.8%
Benzo(b)fluoranthene	20.1	25.0	80.4%	22.5	25.0	90.0%	11.3%
Benzo(k)fluoranthene	19.9	28.0	71.1%	21.2	28.0	75.7%	6.3%
Benzo(a)pyrene	15.5	25.0	62.0%	17.3	25.0	69.2%	11.0%
Indeno(1,2,3-cd)pyrene	17.6	25.0	70.4%	19.4	25.0	77.6%	9.7%
Dibenz(a,h)anthracene	17.7	25.0	70.8%	19.4	25.0	77.6%	9.2%
Benzo(g,h,i)perylene	16.9	25.0	67.6%	18.5	25.0	74.0%	9.0%
1-Methylnaphthalene	19.5	25.0	78.0%	19.8	25.0	79.2%	1.5%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	67.2%	63.2%
2-Fluorobiphenyl	67.6%	69.6%
d14-p-Terphenyl	78.4%	84.4%
d4-1,2-Dichlorobenzene	69.2%	65.2%
d5-Phenol	33.3%	32.0%
2-Fluorophenol	48.5%	45.6%
2,4,6-Tribromophenol	80.3%	85.9%
d4-2-Chlorophenol	75.2%	69.9%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4560  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL03-The Boeing Company  
Project: TUKWILA/PHASE II  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted LCS/LCSD: 02/12/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/14/09 12:09  
LCSD: 02/14/09 12:44

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	19.5	25.0	78.0%	16.5	25.0	66.0%	16.7%
Bis-(2-Chloroethyl) Ether	18.2	25.0	72.8%	16.1	25.0	64.4%	12.2%
2-Chlorophenol	18.5	25.0	74.0%	16.2	25.0	64.8%	13.3%
1,3-Dichlorobenzene	12.6	25.0	50.4%	11.6	25.0	46.4%	8.3%
1,4-Dichlorobenzene	13.0	25.0	52.0%	12.0	25.0	48.0%	8.0%
Benzyl Alcohol	35.1	50.0	70.2%	31.2	50.0	62.4%	11.8%
1,2-Dichlorobenzene	13.6	25.0	54.4%	12.4	25.0	49.6%	9.2%
2-Methylphenol	18.8	25.0	75.2%	16.2	25.0	64.8%	14.9%
2,2'-Oxybis(1-Chloropropane)	19.0	25.0	76.0%	16.8	25.0	67.2%	12.3%
4-Methylphenol	38.9	50.0	77.8%	34.1	50.0	68.2%	13.2%
N-Nitroso-Di-N-Propylamine	18.9	25.0	75.6%	17.0	25.0	68.0%	10.6%
Hexachloroethane	11.4	25.0	45.6%	10.6	25.0	42.4%	7.3%
Nitrobenzene	18.7	25.0	74.8%	17.6	25.0	70.4%	6.1%
Isophorone	20.1	25.0	80.4%	19.6	25.0	78.4%	2.5%
2-Nitrophenol	18.4	25.0	73.6%	17.6	25.0	70.4%	4.4%
2,4-Dimethylphenol	18.0	25.0	72.0%	16.7	25.0	66.8%	7.5%
Benzoic Acid	64.1	75.0	85.5%	59.9	75.0	79.9%	6.8%
bis(2-Chloroethoxy) Methane	18.3	25.0	73.2%	17.8	25.0	71.2%	2.8%
2,4-Dichlorophenol	19.1	25.0	76.4%	18.6	25.0	74.4%	2.7%
1,2,4-Trichlorobenzene	13.8	25.0	55.2%	14.0	25.0	56.0%	1.4%
Naphthalene	16.4	25.0	65.6%	15.7	25.0	62.8%	4.4%
4-Chloroaniline	56.2	60.0	93.7%	52.5	60.0	87.5%	6.8%
Hexachlorobutadiene	11.9	25.0	47.6%	12.7	25.0	50.8%	6.5%
4-Chloro-3-methylphenol	20.9	25.0	83.6%	20.1	25.0	80.4%	3.9%
2-Methylnaphthalene	17.0	25.0	68.0%	16.8	25.0	67.2%	1.2%
Hexachlorocyclopentadiene	31.3	75.0	41.7%	38.6	75.0	51.5%	20.9%
2,4,6-Trichlorophenol	18.9	25.0	75.6%	20.4	25.0	81.6%	7.6%
2,4,5-Trichlorophenol	19.6	25.0	78.4%	20.7	25.0	82.8%	5.5%
2-Chloronaphthalene	16.2	25.0	64.8%	17.8	25.0	71.2%	9.4%
2-Nitroaniline	21.8	25.0	87.2%	22.0	25.0	88.0%	0.9%
Dimethylphthalate	21.0	25.0	84.0%	21.2	25.0	84.8%	0.9%
Acenaphthylene	18.4	25.0	73.6%	19.4	25.0	77.6%	5.3%
3-Nitroaniline	65.7	64.0	103%	63.6	64.0	99.4%	3.2%
Acenaphthene	18.4	25.0	73.6%	19.8	25.0	79.2%	7.3%
2,4-Dinitrophenol	93.0	75.0	124%	93.8	75.0	125%	0.9%
4-Nitrophenol	22.4	25.0	89.6%	21.8	25.0	87.2%	2.7%
Dibenzofuran	19.3	25.0	77.2%	20.2	25.0	80.8%	4.6%
2,6-Dinitrotoluene	21.2	25.0	84.8%	21.2	25.0	84.8%	0.0%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4560  
Matrix: Water  
Date Analyzed: 02/14/09 12:09

QC Report No: OL03-The Boeing Company  
Project: TUKWILA/PHASE II  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrotoluene	22.0	25.0	88.0%	21.6	25.0	86.4%	1.8%
Diethylphthalate	20.4	25.0	81.6%	20.2	25.0	80.8%	1.0%
4-Chlorophenyl-phenylether	19.7	25.0	78.8%	20.2	25.0	80.8%	2.5%
Fluorene	20.4	25.0	81.6%	20.8	25.0	83.2%	1.9%
4-Nitroaniline	21.4	25.0	85.6%	20.4	25.0	81.6%	4.8%
4,6-Dinitro-2-Methylphenol	76.5	75.0	102%	80.2	75.0	107%	4.7%
N-Nitrosodiphenylamine	19.2	25.0	76.8%	20.2	25.0	80.8%	5.1%
4-Bromophenyl-phenylether	18.9	25.0	75.6%	20.7	25.0	82.8%	9.1%
Hexachlorobenzene	19.6	25.0	78.4%	21.6	25.0	86.4%	9.7%
Pentachlorophenol	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
Phenanthrene	20.5	25.0	82.0%	21.6	25.0	86.4%	5.2%
Carbazole	20.8	25.0	83.2%	21.2	25.0	84.8%	1.9%
Anthracene	19.8	25.0	79.2%	21.0	25.0	84.0%	5.9%
Di-n-Butylphthalate	20.4	25.0	81.6%	21.3	25.0	85.2%	4.3%
Fluoranthene	20.2	25.0	80.8%	21.9	25.0	87.6%	8.1%
Pyrene	21.1	25.0	84.4%	19.6	25.0	78.4%	7.4%
Butylbenzylphthalate	20.9	25.0	83.6%	20.2	25.0	80.8%	3.4%
3,3'-Dichlorobenzidine	52.2	64.0	81.6%	57.5	64.0	89.8%	9.7%
Benzo(a)anthracene	20.4	25.0	81.6%	21.4	25.0	85.6%	4.8%
bis(2-Ethylhexyl)phthalate	21.0	25.0	84.0%	20.8	25.0	83.2%	1.0%
Chrysene	19.9	25.0	79.6%	20.9	25.0	83.6%	4.9%
Di-n-Octyl phthalate	20.2	25.0	80.8%	21.8	25.0	87.2%	7.6%
Benzo(b)fluoranthene	19.6	25.0	78.4%	22.0	25.0	88.0%	11.5%
Benzo(k)fluoranthene	22.6	25.0	90.4%	21.1	25.0	84.4%	6.9%
Benzo(a)pyrene	16.6	25.0	66.4%	17.8	25.0	71.2%	7.0%
Indeno(1,2,3-cd)pyrene	19.4	25.0	77.6%	22.0	25.0	88.0%	12.6%
Dibenz(a,h)anthracene	18.9	25.0	75.6%	21.5	25.0	86.0%	12.9%
Benzo(g,h,i)perylene	18.4	25.0	73.6%	20.7	25.0	82.8%	11.8%
1-Methylnaphthalene	18.0	25.0	72.0%	17.8	25.0	71.2%	1.1%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	76.0%	70.0%
2-Fluorobiphenyl	71.2%	75.2%
d14-p-Terphenyl	90.0%	82.0%
d4-1,2-Dichlorobenzene	65.6%	59.2%
d5-Phenol	79.2%	67.7%
2-Fluorophenol	72.5%	63.7%
2,4,6-Tribromophenol	93.1%	90.9%
d4-2-Chlorophenol	75.5%	65.6%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-021609  
LCS/LCSD

Lab Sample ID: LCS-021609  
LIMS ID: 09-3404  
Matrix: Water  
Data Release Authorized:   
Reported: 02/20/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted LCS/LCSD: 02/16/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/19/09 19:27  
LCSD: 02/19/09 20:01

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	18.8	25.0	75.2%	19.0	25.0	76.0%	1.1%
Bis-(2-Chloroethyl) Ether	19.4	25.0	77.6%	18.8	25.0	75.2%	3.1%
2-Chlorophenol	19.8	25.0	79.2%	19.3	25.0	77.2%	2.6%
1,3-Dichlorobenzene	17.1	25.0	68.4%	12.0	25.0	48.0%	35.1%
1,4-Dichlorobenzene	17.0	25.0	68.0%	12.4	25.0	49.6%	31.3%
Benzyl Alcohol	37.0	50.0	74.0%	37.4	50.0	74.8%	1.1%
1,2-Dichlorobenzene	17.3	25.0	69.2%	13.0	25.0	52.0%	28.4%
2-Methylphenol	19.1	25.0	76.4%	19.5	25.0	78.0%	2.1%
2,2'-Oxybis(1-Chloropropane)	19.4	25.0	77.6%	19.0	25.0	76.0%	2.1%
4-Methylphenol	39.8	50.0	79.6%	41.0	50.0	82.0%	3.0%
N-Nitroso-Di-N-Propylamine	18.7	25.0	74.8%	18.7	25.0	74.8%	0.0%
Hexachloroethane	17.1	25.0	68.4%	10.5	25.0	42.0%	47.8%
Nitrobenzene	20.7	25.0	82.8%	20.5	25.0	82.0%	1.0%
Isophorone	20.6	25.0	82.4%	20.8	25.0	83.2%	1.0%
2-Nitrophenol	20.0	25.0	80.0%	20.1	25.0	80.4%	0.5%
2,4-Dimethylphenol	14.5	25.0	58.0%	17.4	25.0	69.6%	18.2%
Benzoic Acid	59.9	75.0	79.9%	61.5	75.0	82.0%	2.6%
bis(2-Chloroethoxy) Methane	19.6	25.0	78.4%	19.9	25.0	79.6%	1.5%
2,4-Dichlorophenol	20.4	25.0	81.6%	21.3	25.0	85.2%	4.3%
1,2,4-Trichlorobenzene	18.7	25.0	74.8%	14.4	25.0	57.6%	26.0%
Naphthalene	19.0	25.0	76.0%	17.6	25.0	70.4%	7.7%
4-Chloroaniline	51.0	60.0	85.0%	53.3	60.0	88.8%	4.4%
Hexachlorobutadiene	19.3	25.0	77.2%	11.8	25.0	47.2%	48.2%
4-Chloro-3-methylphenol	20.0	25.0	80.0%	20.4	25.0	81.6%	2.0%
2-Methylnaphthalene	19.0	25.0	76.0%	17.6	25.0	70.4%	7.7%
Hexachlorocyclopentadiene	40.9	75.0	54.5%	31.3	75.0	41.7%	26.6%
2,4,6-Trichlorophenol	21.0	25.0	84.0%	21.8	25.0	87.2%	3.7%
2,4,5-Trichlorophenol	21.4	25.0	85.6%	22.0	25.0	88.0%	2.8%
2-Chloronaphthalene	19.9	25.0	79.6%	19.3	25.0	77.2%	3.1%
2-Nitroaniline	22.5	25.0	90.0%	22.8	25.0	91.2%	1.3%
Dimethylphthalate	20.6	25.0	82.4%	20.9	25.0	83.6%	1.4%
Acenaphthylene	19.5	25.0	78.0%	19.6	25.0	78.4%	0.5%
3-Nitroaniline	61.0	64.0	95.3%	63.6	64.0	99.4%	4.2%
Acenaphthene	20.1	25.0	80.4%	20.2	25.0	80.8%	0.5%
2,4-Dinitrophenol	87.0	75.0	116%	87.4	75.0	117%	0.5%
4-Nitrophenol	21.6	25.0	86.4%	21.4	25.0	85.6%	0.9%
Dibenzofuran	20.0	25.0	80.0%	20.2	25.0	80.8%	1.0%
2,6-Dinitrotoluene	20.5	25.0	82.0%	20.8	25.0	83.2%	1.5%
2,4-Dinitrotoluene	20.4	25.0	81.6%	20.4	25.0	81.6%	0.0%
Diethylphthalate	19.0	25.0	76.0%	19.1	25.0	76.4%	0.5%
4-Chlorophenyl-phenylether	19.5	25.0	78.0%	19.8	25.0	79.2%	1.5%
Fluorene	20.3	25.0	81.2%	20.3	25.0	81.2%	0.0%
4-Nitroaniline	18.0	25.0	72.0%	18.2	25.0	72.8%	1.1%
4,6-Dinitro-2-Methylphenol	79.3	75.0	106%	79.6	75.0	106%	0.4%
N-Nitrosodiphenylamine	20.8	25.0	83.2%	21.3	25.0	85.2%	2.4%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-021609  
LCS/LCSD

Lab Sample ID: LCS-021609  
LIMS ID: 09-3404  
Matrix: Water  
Date Analyzed: 02/19/09 19:27

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	21.4	25.0	85.6%	21.8	25.0	87.2%	1.9%
Hexachlorobenzene	21.9	25.0	87.6%	23.3	25.0	93.2%	6.2%
Pentachlorophenol	17.3	25.0	69.2%	17.8	25.0	71.2%	2.8%
Phenanthrene	21.6	25.0	86.4%	22.3	25.0	89.2%	3.2%
Carbazole	19.7	25.0	78.8%	20.3	25.0	81.2%	3.0%
Anthracene	20.5	25.0	82.0%	21.0	25.0	84.0%	2.4%
Di-n-Butylphthalate	19.4	25.0	77.6%	19.8	25.0	79.2%	2.0%
Fluoranthene	18.9	25.0	75.6%	19.2	25.0	76.8%	1.6%
Pyrene	24.0	25.0	96.0%	24.3	25.0	97.2%	1.2%
Butylbenzylphthalate	21.8	25.0	87.2%	21.9	25.0	87.6%	0.5%
3,3'-Dichlorobenzidine	51.8	64.0	80.9%	50.6	64.0	79.1%	2.3%
Benzo(a)anthracene	22.4	25.0	89.6%	22.8	25.0	91.2%	1.8%
bis(2-Ethylhexyl)phthalate	21.9	25.0	87.6%	24.6	25.0	98.4%	11.6%
Chrysene	20.8	25.0	83.2%	21.3	25.0	85.2%	2.4%
Di-n-Octyl phthalate	22.0	25.0	88.0%	22.6	25.0	90.4%	2.7%
Benzo(b)fluoranthene	19.0	25.0	76.0%	21.2	25.0	84.8%	10.9%
Benzo(k)fluoranthene	22.0	25.0	88.0%	20.5	25.0	82.0%	7.1%
Benzo(a)pyrene	17.1	25.0	68.4%	17.6	25.0	70.4%	2.9%
Indeno(1,2,3-cd)pyrene	27.9	25.0	112%	29.2	25.0	117%	4.6%
Dibenz(a,h)anthracene	26.8	25.0	107%	28.3	25.0	113%	5.4%
Benzo(g,h,i)perylene	28.9	25.0	116%	30.3	25.0	121%	4.7%
1-Methylnaphthalene	19.8	25.0	79.2%	18.8	25.0	75.2%	5.2%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	81.2%	80.8%
2-Fluorobiphenyl	77.2%	80.0%
d14-p-Terphenyl	94.8%	96.4%
d4-1,2-Dichlorobenzene	72.0%	61.6%
d5-Phenol	81.6%	81.1%
2-Fluorophenol	76.5%	73.1%
2,4,6-Tribromophenol	84.8%	84.0%
d4-2-Chlorophenol	79.7%	76.8%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-8-3-090203  
SAMPLE

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized:  
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/06/09 21:59  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.80 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 13.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	64	< 64 U
111-44-4	Bis-(2-Chloroethyl) Ether	64	< 64 U
95-57-8	2-Chlorophenol	64	< 64 U
541-73-1	1,3-Dichlorobenzene	64	< 64 U
106-46-7	1,4-Dichlorobenzene	64	< 64 U
100-51-6	Benzyl Alcohol	64	< 64 U
95-50-1	1,2-Dichlorobenzene	64	< 64 U
95-48-7	2-Methylphenol	64	< 64 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	64	< 64 U
106-44-5	4-Methylphenol	64	< 64 U
621-64-7	N-Nitroso-Di-N-Propylamine	320	< 320 U
67-72-1	Hexachloroethane	64	< 64 U
98-95-3	Nitrobenzene	64	< 64 U
78-59-1	Isophorone	64	< 64 U
88-75-5	2-Nitrophenol	64	< 64 U
105-67-9	2,4-Dimethylphenol	64	< 64 U
65-85-0	Benzoic Acid	640	< 640 U
111-91-1	bis(2-Chloroethoxy) Methane	64	< 64 U
120-83-2	2,4-Dichlorophenol	320	< 320 U
120-82-1	1,2,4-Trichlorobenzene	64	< 64 U
91-20-3	Naphthalene	64	< 64 U
106-47-8	4-Chloroaniline	320	< 320 U
87-68-3	Hexachlorobutadiene	64	< 64 U
59-50-7	4-Chloro-3-methylphenol	320	< 320 U
91-57-6	2-Methylnaphthalene	64	< 64 U
77-47-4	Hexachlorocyclopentadiene	320	< 320 U
88-06-2	2,4,6-Trichlorophenol	320	< 320 U
95-95-4	2,4,5-Trichlorophenol	320	< 320 U
91-58-7	2-Chloronaphthalene	64	< 64 U
88-74-4	2-Nitroaniline	320	< 320 U
131-11-3	Dimethylphthalate	64	< 64 U
208-96-8	Acenaphthylene	64	< 64 U
99-09-2	3-Nitroaniline	320	< 320 U
83-32-9	Acenaphthene	64	< 64 U
51-28-5	2,4-Dinitrophenol	640	< 640 U
100-02-7	4-Nitrophenol	320	< 320 U
132-64-9	Dibenzofuran	64	< 64 U
606-20-2	2,6-Dinitrotoluene	320	< 320 U
121-14-2	2,4-Dinitrotoluene	320	< 320 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-8-3-090203  
SAMPLE

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Date Analyzed: 02/06/09 21:59

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	64	< 64 U
7005-72-3	4-Chlorophenyl-phenylether	64	< 64 U
86-73-7	Fluorene	64	< 64 U
100-01-6	4-Nitroaniline	320	< 320 U
534-52-1	4,6-Dinitro-2-Methylphenol	640	< 640 U
86-30-6	N-Nitrosodiphenylamine	64	< 64 U
101-55-3	4-Bromophenyl-phenylether	64	< 64 U
118-74-1	Hexachlorobenzene	64	< 64 U
87-86-5	Pentachlorophenol	320	< 320 U
85-01-8	Phenanthrene	64	< 64 U
86-74-8	Carbazole	64	< 64 U
120-12-7	Anthracene	64	< 64 U
84-74-2	Di-n-Butylphthalate	64	< 64 U
206-44-0	Fluoranthene	64	< 64 U
129-00-0	Pyrene	64	< 64 U
85-68-7	Butylbenzylphthalate	64	< 64 U
91-94-1	3,3'-Dichlorobenzidine	320	< 320 U
56-55-3	Benzo(a)anthracene	64	< 64 U
117-81-7	bis(2-Ethylhexyl)phthalate	64	< 64 U
218-01-9	Chrysene	64	< 64 U
117-84-0	Di-n-Octyl phthalate	64	< 64 U
205-99-2	Benzo(b)fluoranthene	64	< 64 U
207-08-9	Benzo(k)fluoranthene	64	< 64 U
50-32-8	Benzo(a)pyrene	64	< 64 U
193-39-5	Indeno(1,2,3-cd)pyrene	64	< 64 U
53-70-3	Dibenz(a,h)anthracene	64	< 64 U
191-24-2	Benzo(g,h,i)perylene	64	< 64 U
90-12-0	1-Methylnaphthalene	64	< 64 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	60.8%
d14-p-Terphenyl	74.0%	d4-1,2-Dichlorobenzene	71.6%
d5-Phenol	45.9%	2-Fluorophenol	34.9%
2,4,6-Tribromophenol	11.8%	d4-2-Chlorophenol	51.7%

**ORGANICS ANALYSIS DATA SHEET**  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-8-3-090203  
REEXTRACT

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized:  
Reported: 02/18/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/13/09  
Date Analyzed: 02/17/09 16:38  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.79 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 13.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	64	< 64 U
111-44-4	Bis-(2-Chloroethyl) Ether	64	< 64 U
95-57-8	2-Chlorophenol	64	< 64 U
541-73-1	1,3-Dichlorobenzene	64	< 64 U
106-46-7	1,4-Dichlorobenzene	64	< 64 U
100-51-6	Benzyl Alcohol	64	< 64 U
95-50-1	1,2-Dichlorobenzene	64	< 64 U
95-48-7	2-Methylphenol	64	< 64 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	64	< 64 U
106-44-5	4-Methylphenol	64	< 64 U
621-64-7	N-Nitroso-Di-N-Propylamine	320	< 320 U
67-72-1	Hexachloroethane	64	< 64 U
98-95-3	Nitrobenzene	64	< 64 U
78-59-1	Isophorone	64	< 64 U
88-75-5	2-Nitrophenol	64	< 64 U
105-67-9	2,4-Dimethylphenol	64	< 64 U
65-85-0	Benzoic Acid	640	< 640 U
111-91-1	bis(2-Chloroethoxy) Methane	64	< 64 U
120-83-2	2,4-Dichlorophenol	320	< 320 U
120-82-1	1,2,4-Trichlorobenzene	64	< 64 U
91-20-3	Naphthalene	64	< 64 U
106-47-8	4-Chloroaniline	320	< 320 U
87-68-3	Hexachlorobutadiene	64	< 64 U
59-50-7	4-Chloro-3-methylphenol	320	< 320 U
91-57-6	2-Methylnaphthalene	64	< 64 U
77-47-4	Hexachlorocyclopentadiene	320	< 320 U
88-06-2	2,4,6-Trichlorophenol	320	< 320 U
95-95-4	2,4,5-Trichlorophenol	320	< 320 U
91-58-7	2-Chloronaphthalene	64	< 64 U
88-74-4	2-Nitroaniline	320	< 320 U
131-11-3	Dimethylphthalate	64	< 64 U
208-96-8	Acenaphthylene	64	< 64 U
99-09-2	3-Nitroaniline	320	< 320 U
83-32-9	Acenaphthene	64	< 64 U
51-28-5	2,4-Dinitrophenol	640	< 640 U
100-02-7	4-Nitrophenol	320	< 320 U
132-64-9	Dibenzofuran	64	< 64 U
606-20-2	2,6-Dinitrotoluene	320	< 320 U
121-14-2	2,4-Dinitrotoluene	320	< 320 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-8-3-090203  
REEXTRACT

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Date Analyzed: 02/17/09 16:38

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	64	< 64 U
7005-72-3	4-Chlorophenyl-phenylether	64	< 64 U
86-73-7	Fluorene	64	< 64 U
100-01-6	4-Nitroaniline	320	< 320 U
534-52-1	4,6-Dinitro-2-Methylphenol	640	< 640 U
86-30-6	N-Nitrosodiphenylamine	64	< 64 U
101-55-3	4-Bromophenyl-phenylether	64	< 64 U
118-74-1	Hexachlorobenzene	64	< 64 U
87-86-5	Pentachlorophenol	320	< 320 U
85-01-8	Phenanthrene	64	< 64 U
86-74-8	Carbazole	64	< 64 U
120-12-7	Anthracene	64	< 64 U
84-74-2	Di-n-Butylphthalate	64	< 64 U
206-44-0	Fluoranthene	64	< 64 U
129-00-0	Pyrene	64	< 64 U
85-68-7	Butylbenzylphthalate	64	< 64 U
91-94-1	3,3'-Dichlorobenzidine	320	< 320 U
56-55-3	Benzo (a) anthracene	64	< 64 U
117-81-7	bis (2-Ethylhexyl) phthalate	64	< 64 U
218-01-9	Chrysene	64	< 64 U
117-84-0	Di-n-Octyl phthalate	64	< 64 U
205-99-2	Benzo (b) fluoranthene	64	< 64 U
207-08-9	Benzo (k) fluoranthene	64	< 64 U
50-32-8	Benzo (a) pyrene	64	< 64 U
193-39-5	Indeno (1,2,3-cd) pyrene	64	< 64 U
53-70-3	Dibenz (a,h) anthracene	64	< 64 U
191-24-2	Benzo (g,h,i) perylene	64	< 64 U
90-12-0	1-Methylnaphthalene	64	< 64 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	69.2%	2-Fluorobiphenyl	67.6%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	76.4%
d5-Phenol	68.0%	2-Fluorophenol	60.5%
2,4,6-Tribromophenol	56.3%	d4-2-Chlorophenol	69.3%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: IDP-9-3-090203  
SAMPLELab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/13/09QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09Date Extracted: 02/06/09  
Date Analyzed: 02/06/09 22:34  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: NoSample Amount: 8.16 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 13.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	61	< 61 U
111-44-4	Bis-(2-Chloroethyl) Ether	61	< 61 U
95-57-8	2-Chlorophenol	61	< 61 U
541-73-1	1,3-Dichlorobenzene	61	< 61 U
106-46-7	1,4-Dichlorobenzene	61	< 61 U
100-51-6	Benzyl Alcohol	61	< 61 U
95-50-1	1,2-Dichlorobenzene	61	< 61 U
95-48-7	2-Methylphenol	61	< 61 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	61	< 61 U
106-44-5	4-Methylphenol	61	< 61 U
621-64-7	N-Nitroso-Di-N-Propylamine	310	< 310 U
67-72-1	Hexachloroethane	61	< 61 U
98-95-3	Nitrobenzene	61	< 61 U
78-59-1	Isophorone	61	< 61 U
88-75-5	2-Nitrophenol	61	< 61 U
105-67-9	2,4-Dimethylphenol	61	< 61 U
65-85-0	Benzoic Acid	610	< 610 U
111-91-1	bis(2-Chloroethoxy) Methane	61	< 61 U
120-83-2	2,4-Dichlorophenol	310	< 310 U
120-82-1	1,2,4-Trichlorobenzene	61	< 61 U
91-20-3	Naphthalene	61	< 61 U
106-47-8	4-Chloroaniline	310	< 310 U
87-68-3	Hexachlorobutadiene	61	< 61 U
59-50-7	4-Chloro-3-methylphenol	310	< 310 U
91-57-6	2-Methylnaphthalene	61	< 61 U
77-47-4	Hexachlorocyclopentadiene	310	< 310 U
88-06-2	2,4,6-Trichlorophenol	310	< 310 U
95-95-4	2,4,5-Trichlorophenol	310	< 310 U
91-58-7	2-Chloronaphthalene	61	< 61 U
88-74-4	2-Nitroaniline	310	< 310 U
131-11-3	Dimethylphthalate	61	< 61 U
208-96-8	Acenaphthylene	61	< 61 U
99-09-2	3-Nitroaniline	310	< 310 U
83-32-9	Acenaphthene	61	< 61 U
51-28-5	2,4-Dinitrophenol	610	< 610 U
100-02-7	4-Nitrophenol	310	< 310 U
132-64-9	Dibenzofuran	61	< 61 U
606-20-2	2,6-Dinitrotoluene	310	< 310 U
121-14-2	2,4-Dinitrotoluene	310	< 310 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-9-3-090203  
SAMPLE

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Date Analyzed: 02/06/09 22:34

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	61	< 61 U
7005-72-3	4-Chlorophenyl-phenylether	61	< 61 U
86-73-7	Fluorene	61	< 61 U
100-01-6	4-Nitroaniline	310	< 310 U
534-52-1	4,6-Dinitro-2-Methylphenol	610	< 610 U
86-30-6	N-Nitrosodiphenylamine	61	< 61 U
101-55-3	4-Bromophenyl-phenylether	61	< 61 U
118-74-1	Hexachlorobenzene	61	< 61 U
87-86-5	Pentachlorophenol	310	< 310 U
85-01-8	Phenanthrene	61	< 61 U
86-74-8	Carbazole	61	< 61 U
120-12-7	Anthracene	61	< 61 U
84-74-2	Di-n-Butylphthalate	61	< 61 U
206-44-0	Fluoranthene	61	< 61 U
129-00-0	Pyrene	61	< 61 U
85-68-7	Butylbenzylphthalate	61	< 61 U
91-94-1	3,3'-Dichlorobenzidine	310	< 310 U
56-55-3	Benzo (a) anthracene	61	< 61 U
117-81-7	bis (2-Ethylhexyl) phthalate	61	< 61 U
218-01-9	Chrysene	61	< 61 U
117-84-0	Di-n-Octyl phthalate	61	< 61 U
205-99-2	Benzo (b) fluoranthene	61	< 61 U
207-08-9	Benzo (k) fluoranthene	61	< 61 U
50-32-8	Benzo (a) pyrene	61	< 61 U
193-39-5	Indeno (1,2,3-cd) pyrene	61	< 61 U
53-70-3	Dibenz (a,h) anthracene	61	< 61 U
191-24-2	Benzo (g,h,i) perylene	61	< 61 U
90-12-0	1-Methylnaphthalene	61	< 61 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	65.6%	2-Fluorobiphenyl	63.6%
d14-p-Terphenyl	75.6%	d4-1,2-Dichlorobenzene	73.6%
d5-Phenol	50.9%	2-Fluorophenol	57.3%
2,4,6-Tribromophenol	80.5%	d4-2-Chlorophenol	64.0%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-9-3-090203  
MATRIX SPIKE

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Data Release Authorized:  
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/06/09 23:09  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.86 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 13.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	64	---
111-44-4	Bis-(2-Chloroethyl) Ether	64	---
95-57-8	2-Chlorophenol	64	---
541-73-1	1,3-Dichlorobenzene	64	---
106-46-7	1,4-Dichlorobenzene	64	---
100-51-6	Benzyl Alcohol	64	---
95-50-1	1,2-Dichlorobenzene	64	---
95-48-7	2-Methylphenol	64	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	64	---
106-44-5	4-Methylphenol	64	---
621-64-7	N-Nitroso-Di-N-Propylamine	320	---
67-72-1	Hexachloroethane	64	---
98-95-3	Nitrobenzene	64	---
78-59-1	Isophorone	64	---
88-75-5	2-Nitrophenol	64	---
105-67-9	2,4-Dimethylphenol	64	---
65-85-0	Benzoic Acid	640	---
111-91-1	bis(2-Chloroethoxy) Methane	64	---
120-83-2	2,4-Dichlorophenol	320	---
120-82-1	1,2,4-Trichlorobenzene	64	---
91-20-3	Naphthalene	64	---
106-47-8	4-Chloroaniline	320	---
87-68-3	Hexachlorobutadiene	64	---
59-50-7	4-Chloro-3-methylphenol	320	---
91-57-6	2-Methylnaphthalene	64	---
77-47-4	Hexachlorocyclopentadiene	320	---
88-06-2	2,4,6-Trichlorophenol	320	---
95-95-4	2,4,5-Trichlorophenol	320	---
91-58-7	2-Chloronaphthalene	64	---
88-74-4	2-Nitroaniline	320	---
131-11-3	Dimethylphthalate	64	---
208-96-8	Acenaphthylene	64	---
99-09-2	3-Nitroaniline	320	---
83-32-9	Acenaphthene	64	---
51-28-5	2,4-Dinitrophenol	640	---
100-02-7	4-Nitrophenol	320	---
132-64-9	Dibenzofuran	64	---
606-20-2	2,6-Dinitrotoluene	320	---
121-14-2	2,4-Dinitrotoluene	320	---

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-9-3-090203  
MATRIX SPIKE

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Date Analyzed: 02/06/09 23:09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	64	---
7005-72-3	4-Chlorophenyl-phenylether	64	---
86-73-7	Fluorene	64	---
100-01-6	4-Nitroaniline	320	---
534-52-1	4,6-Dinitro-2-Methylphenol	640	---
86-30-6	N-Nitrosodiphenylamine	64	---
101-55-3	4-Bromophenyl-phenylether	64	---
118-74-1	Hexachlorobenzene	64	---
87-86-5	Pentachlorophenol	320	---
85-01-8	Phenanthrene	64	---
86-74-8	Carbazole	64	---
120-12-7	Anthracene	64	---
84-74-2	Di-n-Butylphthalate	64	---
206-44-0	Fluoranthene	64	---
129-00-0	Pyrene	64	---
85-68-7	Butylbenzylphthalate	64	---
91-94-1	3,3'-Dichlorobenzidine	320	---
56-55-3	Benzo(a)anthracene	64	---
117-81-7	bis(2-Ethylhexyl)phthalate	64	---
218-01-9	Chrysene	64	---
117-84-0	Di-n-Octyl phthalate	64	---
205-99-2	Benzo(b)fluoranthene	64	---
207-08-9	Benzo(k)fluoranthene	64	---
50-32-8	Benzo(a)pyrene	64	---
193-39-5	Indeno(1,2,3-cd)pyrene	64	---
53-70-3	Dibenz(a,h)anthracene	64	---
191-24-2	Benzo(g,h,i)perylene	64	---
90-12-0	1-Methylnaphthalene	64	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	71.6%
d14-p-Terphenyl	78.4%	d4-1,2-Dichlorobenzene	73.6%
d5-Phenol	60.8%	2-Fluorophenol	60.5%
2,4,6-Tribromophenol	92.5%	d4-2-Chlorophenol	68.8%

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/12/09 21:25  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.96 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 13.8%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	63	---
111-44-4	Bis-(2-Chloroethyl) Ether	63	---
95-57-8	2-Chlorophenol	63	---
541-73-1	1,3-Dichlorobenzene	63	---
106-46-7	1,4-Dichlorobenzene	63	---
100-51-6	Benzyl Alcohol	63	---
95-50-1	1,2-Dichlorobenzene	63	---
95-48-7	2-Methylphenol	63	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	63	---
106-44-5	4-Methylphenol	63	---
621-64-7	N-Nitroso-Di-N-Propylamine	310	---
67-72-1	Hexachloroethane	63	---
98-95-3	Nitrobenzene	63	---
78-59-1	Isophorone	63	---
88-75-5	2-Nitrophenol	63	---
105-67-9	2,4-Dimethylphenol	63	---
65-85-0	Benzoic Acid	630	---
111-91-1	bis(2-Chloroethoxy) Methane	63	---
120-83-2	2,4-Dichlorophenol	310	---
120-82-1	1,2,4-Trichlorobenzene	63	---
91-20-3	Naphthalene	63	---
106-47-8	4-Chloroaniline	310	---
87-68-3	Hexachlorobutadiene	63	---
59-50-7	4-Chloro-3-methylphenol	310	---
91-57-6	2-Methylnaphthalene	63	---
77-47-4	Hexachlorocyclopentadiene	310	---
88-06-2	2,4,6-Trichlorophenol	310	---
95-95-4	2,4,5-Trichlorophenol	310	---
91-58-7	2-Chloronaphthalene	63	---
88-74-4	2-Nitroaniline	310	---
131-11-3	Dimethylphthalate	63	---
208-96-8	Acenaphthylene	63	---
99-09-2	3-Nitroaniline	310	---
83-32-9	Acenaphthene	63	---
51-28-5	2,4-Dinitrophenol	630	---
100-02-7	4-Nitrophenol	310	---
132-64-9	Dibenzofuran	63	---
606-20-2	2,6-Dinitrotoluene	310	---
121-14-2	2,4-Dinitrotoluene	310	---

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-9-3-090203  
MATRIX SPIKE DUPLICATE

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Date Analyzed: 02/12/09 21:25

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	63	---
7005-72-3	4-Chlorophenyl-phenylether	63	---
86-73-7	Fluorene	63	---
100-01-6	4-Nitroaniline	310	---
534-52-1	4,6-Dinitro-2-Methylphenol	630	---
86-30-6	N-Nitrosodiphenylamine	63	---
101-55-3	4-Bromophenyl-phenylether	63	---
118-74-1	Hexachlorobenzene	63	---
87-86-5	Pentachlorophenol	310	---
85-01-8	Phenanthrene	63	---
86-74-8	Carbazole	63	---
120-12-7	Anthracene	63	---
84-74-2	Di-n-Butylphthalate	63	---
206-44-0	Fluoranthene	63	---
129-00-0	Pyrene	63	---
85-68-7	Butylbenzylphthalate	63	---
91-94-1	3,3'-Dichlorobenzidine	310	---
56-55-3	Benzo (a) anthracene	63	---
117-81-7	bis (2-Ethylhexyl) phthalate	63	---
218-01-9	Chrysene	63	---
117-84-0	Di-n-Octyl phthalate	63	---
205-99-2	Benzo (b) fluoranthene	63	---
207-08-9	Benzo (k) fluoranthene	63	---
50-32-8	Benzo (a) pyrene	63	---
193-39-5	Indeno (1,2,3-cd) pyrene	63	---
53-70-3	Dibenz (a,h) anthracene	63	---
191-24-2	Benzo (g,h,i) perylene	63	---
90-12-0	1-Methylnaphthalene	63	---

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	59.6%	2-Fluorobiphenyl	60.4%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	62.9%	2-Fluorophenol	60.8%
2,4,6-Tribromophenol	82.1%	d4-2-Chlorophenol	63.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-12-12-090203  
SAMPLE

Lab Sample ID: OL03F  
LIMS ID: 09-3396  
Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/12/09 21:57  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.85 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 24.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	64	< 64 U
111-44-4	Bis-(2-Chloroethyl) Ether	64	< 64 U
95-57-8	2-Chlorophenol	64	< 64 U
541-73-1	1,3-Dichlorobenzene	64	< 64 U
106-46-7	1,4-Dichlorobenzene	64	< 64 U
100-51-6	Benzyl Alcohol	64	< 64 U
95-50-1	1,2-Dichlorobenzene	64	< 64 U
95-48-7	2-Methylphenol	64	< 64 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	64	< 64 U
106-44-5	4-Methylphenol	64	< 64 U
621-64-7	N-Nitroso-Di-N-Propylamine	320	< 320 U
67-72-1	Hexachloroethane	64	< 64 U
98-95-3	Nitrobenzene	64	< 64 U
78-59-1	Isophorone	64	< 64 U
88-75-5	2-Nitrophenol	64	< 64 U
105-67-9	2,4-Dimethylphenol	64	< 64 U
65-85-0	Benzoic Acid	640	< 640 U
111-91-1	bis(2-Chloroethoxy) Methane	64	< 64 U
120-83-2	2,4-Dichlorophenol	320	< 320 U
120-82-1	1,2,4-Trichlorobenzene	64	< 64 U
91-20-3	Naphthalene	64	< 64 U
106-47-8	4-Chloroaniline	320	< 320 U
87-68-3	Hexachlorobutadiene	64	< 64 U
59-50-7	4-Chloro-3-methylphenol	320	< 320 U
91-57-6	2-Methylnaphthalene	64	< 64 U
77-47-4	Hexachlorocyclopentadiene	320	< 320 U
88-06-2	2,4,6-Trichlorophenol	320	< 320 U
95-95-4	2,4,5-Trichlorophenol	320	< 320 U
91-58-7	2-Chloronaphthalene	64	< 64 U
88-74-4	2-Nitroaniline	320	< 320 U
131-11-3	Dimethylphthalate	64	< 64 U
208-96-8	Acenaphthylene	64	< 64 U
99-09-2	3-Nitroaniline	320	< 320 U
83-32-9	Acenaphthene	64	< 64 U
51-28-5	2,4-Dinitrophenol	640	< 640 U
100-02-7	4-Nitrophenol	320	< 320 U
132-64-9	Dibenzofuran	64	< 64 U
606-20-2	2,6-Dinitrotoluene	320	< 320 U
121-14-2	2,4-Dinitrotoluene	320	< 320 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-12-12-090203  
SAMPLE

Lab Sample ID: OL03F  
LIMS ID: 09-3396  
Matrix: Soil  
Date Analyzed: 02/12/09 21:57

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	64	< 64 U
7005-72-3	4-Chlorophenyl-phenylether	64	< 64 U
86-73-7	Fluorene	64	< 64 U
100-01-6	4-Nitroaniline	320	< 320 U
534-52-1	4,6-Dinitro-2-Methylphenol	640	< 640 U
86-30-6	N-Nitrosodiphenylamine	64	< 64 U
101-55-3	4-Bromophenyl-phenylether	64	< 64 U
118-74-1	Hexachlorobenzene	64	< 64 U
87-86-5	Pentachlorophenol	320	< 320 U
85-01-8	Phenanthrene	64	< 64 U
86-74-8	Carbazole	64	< 64 U
120-12-7	Anthracene	64	< 64 U
84-74-2	Di-n-Butylphthalate	64	< 64 U
206-44-0	Fluoranthene	64	< 64 U
129-00-0	Pyrene	64	< 64 U
85-68-7	Butylbenzylphthalate	64	< 64 U
91-94-1	3,3'-Dichlorobenzidine	320	< 320 U
56-55-3	Benzo (a) anthracene	64	< 64 U
117-81-7	bis (2-Ethylhexyl) phthalate	64	< 64 U
218-01-9	Chrysene	64	< 64 U
117-84-0	Di-n-Octyl phthalate	64	< 64 U
205-99-2	Benzo (b) fluoranthene	64	< 64 U
207-08-9	Benzo (k) fluoranthene	64	< 64 U
50-32-8	Benzo (a) pyrene	64	< 64 U
193-39-5	Indeno (1,2,3-cd) pyrene	64	< 64 U
53-70-3	Dibenz (a,h) anthracene	64	< 64 U
191-24-2	Benzo (g,h,i) perylene	64	< 64 U
90-12-0	1-Methylnaphthalene	64	< 64 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	66.4%	2-Fluorobiphenyl	64.0%
d14-p-Terphenyl	78.4%	d4-1,2-Dichlorobenzene	78.0%
d5-Phenol	67.7%	2-Fluorophenol	69.1%
2,4,6-Tribromophenol	82.9%	d4-2-Chlorophenol	72.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-14-11-090203  
SAMPLE

Lab Sample ID: OL03H  
LIMS ID: 09-3398  
Matrix: Soil  
Data Release Authorized:  
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/12/09 22:30  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.54 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
111-44-4	Bis-(2-Chloroethyl) Ether	58	< 58 U
95-57-8	2-Chlorophenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	58	< 58 U
106-44-5	4-Methylphenol	58	< 58 U
621-64-7	N-Nitroso-Di-N-Propylamine	290	< 290 U
67-72-1	Hexachloroethane	58	< 58 U
98-95-3	Nitrobenzene	58	< 58 U
78-59-1	Isophorone	58	< 58 U
88-75-5	2-Nitrophenol	58	< 58 U
105-67-9	2,4-Dimethylphenol	58	< 58 U
65-85-0	Benzoic Acid	580	< 580 U
111-91-1	bis(2-Chloroethoxy) Methane	58	< 58 U
120-83-2	2,4-Dichlorophenol	290	< 290 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	Naphthalene	58	< 58 U
106-47-8	4-Chloroaniline	290	< 290 U
87-68-3	Hexachlorobutadiene	58	< 58 U
59-50-7	4-Chloro-3-methylphenol	290	< 290 U
91-57-6	2-Methylnaphthalene	58	< 58 U
77-47-4	Hexachlorocyclopentadiene	290	< 290 U
88-06-2	2,4,6-Trichlorophenol	290	< 290 U
95-95-4	2,4,5-Trichlorophenol	290	< 290 U
91-58-7	2-Chloronaphthalene	58	< 58 U
88-74-4	2-Nitroaniline	290	< 290 U
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	Acenaphthylene	58	< 58 U
99-09-2	3-Nitroaniline	290	< 290 U
83-32-9	Acenaphthene	58	< 58 U
51-28-5	2,4-Dinitrophenol	580	< 580 U
100-02-7	4-Nitrophenol	290	< 290 U
132-64-9	Dibenzofuran	58	< 58 U
606-20-2	2,6-Dinitrotoluene	290	< 290 U
121-14-2	2,4-Dinitrotoluene	290	< 290 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-14-11-090203  
SAMPLE

Lab Sample ID: OL03H  
LIMS ID: 09-3398  
Matrix: Soil  
Date Analyzed: 02/12/09 22:30

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	58	< 58 U
7005-72-3	4-Chlorophenyl-phenylether	58	< 58 U
86-73-7	Fluorene	58	< 58 U
100-01-6	4-Nitroaniline	290	< 290 U
534-52-1	4,6-Dinitro-2-Methylphenol	580	< 580 U
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
101-55-3	4-Bromophenyl-phenylether	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	290	< 290 U
85-01-8	Phenanthrene	58	< 58 U
86-74-8	Carbazole	58	< 58 U
120-12-7	Anthracene	58	< 58 U
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	Fluoranthene	58	< 58 U
129-00-0	Pyrene	58	< 58 U
85-68-7	Butylbenzylphthalate	58	< 58 U
91-94-1	3,3'-Dichlorobenzidine	290	< 290 U
56-55-3	Benzo(a)anthracene	58	< 58 U
117-81-7	bis(2-Ethylhexyl)phthalate	58	< 58 U
218-01-9	Chrysene	58	< 58 U
117-84-0	Di-n-Octyl phthalate	58	< 58 U
205-99-2	Benzo(b)fluoranthene	58	< 58 U
207-08-9	Benzo(k)fluoranthene	58	< 58 U
50-32-8	Benzo(a)pyrene	58	< 58 U
193-39-5	Indeno(1,2,3-cd)pyrene	58	< 58 U
53-70-3	Dibenz(a,h)anthracene	58	< 58 U
191-24-2	Benzo(g,h,i)perylene	58	< 58 U
90-12-0	1-Methylnaphthalene	58	< 58 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.0%	2-Fluorobiphenyl	63.2%
d14-p-Terphenyl	80.8%	d4-1,2-Dichlorobenzene	74.0%
d5-Phenol	64.0%	2-Fluorophenol	64.8%
2,4,6-Tribromophenol	79.2%	d4-2-Chlorophenol	69.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-6A-3-090203  
SAMPLE

Lab Sample ID: OL03J  
LIMS ID: 09-3400  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/12/09 23:03  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.55 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 17.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	58	< 58 U
111-44-4	Bis-(2-Chloroethyl) Ether	58	< 58 U
95-57-8	2-Chlorophenol	58	< 58 U
541-73-1	1,3-Dichlorobenzene	58	< 58 U
106-46-7	1,4-Dichlorobenzene	58	< 58 U
100-51-6	Benzyl Alcohol	58	< 58 U
95-50-1	1,2-Dichlorobenzene	58	< 58 U
95-48-7	2-Methylphenol	58	< 58 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	58	< 58 U
106-44-5	4-Methylphenol	58	< 58 U
621-64-7	N-Nitroso-Di-N-Propylamine	290	< 290 U
67-72-1	Hexachloroethane	58	< 58 U
98-95-3	Nitrobenzene	58	< 58 U
78-59-1	Isophorone	58	< 58 U
88-75-5	2-Nitrophenol	58	< 58 U
105-67-9	2,4-Dimethylphenol	58	< 58 U
65-85-0	Benzoic Acid	580	< 580 U
111-91-1	bis(2-Chloroethoxy) Methane	58	< 58 U
120-83-2	2,4-Dichlorophenol	290	< 290 U
120-82-1	1,2,4-Trichlorobenzene	58	< 58 U
91-20-3	Naphthalene	58	< 58 U
106-47-8	4-Chloroaniline	290	< 290 U
87-68-3	Hexachlorobutadiene	58	< 58 U
59-50-7	4-Chloro-3-methylphenol	290	< 290 U
91-57-6	2-Methylnaphthalene	58	< 58 U
77-47-4	Hexachlorocyclopentadiene	290	< 290 U
88-06-2	2,4,6-Trichlorophenol	290	< 290 U
95-95-4	2,4,5-Trichlorophenol	290	< 290 U
91-58-7	2-Chloronaphthalene	58	< 58 U
88-74-4	2-Nitroaniline	290	< 290 U
131-11-3	Dimethylphthalate	58	< 58 U
208-96-8	Acenaphthylene	58	< 58 U
99-09-2	3-Nitroaniline	290	< 290 U
83-32-9	Acenaphthene	58	< 58 U
51-28-5	2,4-Dinitrophenol	580	< 580 U
100-02-7	4-Nitrophenol	290	< 290 U
132-64-9	Dibenzofuran	58	< 58 U
606-20-2	2,6-Dinitrotoluene	290	< 290 U
121-14-2	2,4-Dinitrotoluene	290	< 290 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-6A-3-090203  
SAMPLE

Lab Sample ID: OL03J  
LIMS ID: 09-3400  
Matrix: Soil  
Date Analyzed: 02/12/09 23:03

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	58	< 58 U
7005-72-3	4-Chlorophenyl-phenylether	58	< 58 U
86-73-7	Fluorene	58	< 58 U
100-01-6	4-Nitroaniline	290	< 290 U
534-52-1	4,6-Dinitro-2-Methylphenol	580	< 580 U
86-30-6	N-Nitrosodiphenylamine	58	< 58 U
101-55-3	4-Bromophenyl-phenylether	58	< 58 U
118-74-1	Hexachlorobenzene	58	< 58 U
87-86-5	Pentachlorophenol	290	< 290 U
85-01-8	Phenanthrene	58	< 58 U
86-74-8	Carbazole	58	< 58 U
120-12-7	Anthracene	58	< 58 U
84-74-2	Di-n-Butylphthalate	58	< 58 U
206-44-0	Fluoranthene	58	< 58 U
129-00-0	Pyrene	58	< 58 U
85-68-7	Butylbenzylphthalate	58	< 58 U
91-94-1	3,3'-Dichlorobenzidine	290	< 290 U
56-55-3	Benzo(a)anthracene	58	< 58 U
117-81-7	bis(2-Ethylhexyl)phthalate	58	< 58 U
218-01-9	Chrysene	58	< 58 U
117-84-0	Di-n-Octyl phthalate	58	< 58 U
205-99-2	Benzo(b)fluoranthene	58	< 58 U
207-08-9	Benzo(k)fluoranthene	58	< 58 U
50-32-8	Benzo(a)pyrene	58	< 58 U
193-39-5	Indeno(1,2,3-cd)pyrene	58	< 58 U
53-70-3	Dibenz(a,h)anthracene	58	< 58 U
191-24-2	Benzo(g,h,i)perylene	58	< 58 U
90-12-0	1-Methylnaphthalene	58	< 58 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	66.4%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	81.2%	d4-1,2-Dichlorobenzene	74.8%
d5-Phenol	55.2%	2-Fluorophenol	20.4%
2,4,6-Tribromophenol	2.7%	d4-2-Chlorophenol	38.4%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: IDP-6A-3-090203  
REEXTRACT

Lab Sample ID: OL03J  
LIMS ID: 09-3400  
Matrix: Soil  
Data Release Authorized:  
Reported: 02/18/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/13/09  
Date Analyzed: 02/17/09 17:11  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 8.46 g-dry-wt  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: 17.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	59	< 59 U
111-44-4	Bis-(2-Chloroethyl) Ether	59	< 59 U
95-57-8	2-Chlorophenol	59	< 59 U
541-73-1	1,3-Dichlorobenzene	59	< 59 U
106-46-7	1,4-Dichlorobenzene	59	< 59 U
100-51-6	Benzyl Alcohol	59	< 59 U
95-50-1	1,2-Dichlorobenzene	59	< 59 U
95-48-7	2-Methylphenol	59	< 59 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	59	< 59 U
106-44-5	4-Methylphenol	59	< 59 U
621-64-7	N-Nitroso-Di-N-Propylamine	300	< 300 U
67-72-1	Hexachloroethane	59	< 59 U
98-95-3	Nitrobenzene	59	< 59 U
78-59-1	Isophorone	59	< 59 U
88-75-5	2-Nitrophenol	59	< 59 U
105-67-9	2,4-Dimethylphenol	59	< 59 U
65-85-0	Benzoic Acid	590	< 590 U
111-91-1	bis(2-Chloroethoxy) Methane	59	< 59 U
120-83-2	2,4-Dichlorophenol	300	< 300 U
120-82-1	1,2,4-Trichlorobenzene	59	< 59 U
91-20-3	Naphthalene	59	< 59 U
106-47-8	4-Chloroaniline	300	< 300 U
87-68-3	Hexachlorobutadiene	59	< 59 U
59-50-7	4-Chloro-3-methylphenol	300	< 300 U
91-57-6	2-Methylnaphthalene	59	< 59 U
77-47-4	Hexachlorocyclopentadiene	300	< 300 U
88-06-2	2,4,6-Trichlorophenol	300	< 300 U
95-95-4	2,4,5-Trichlorophenol	300	< 300 U
91-58-7	2-Chloronaphthalene	59	< 59 U
88-74-4	2-Nitroaniline	300	< 300 U
131-11-3	Dimethylphthalate	59	< 59 U
208-96-8	Acenaphthylene	59	< 59 U
99-09-2	3-Nitroaniline	300	< 300 U
83-32-9	Acenaphthene	59	< 59 U
51-28-5	2,4-Dinitrophenol	590	< 590 U
100-02-7	4-Nitrophenol	300	< 300 U
132-64-9	Dibenzofuran	59	< 59 U
606-20-2	2,6-Dinitrotoluene	300	< 300 U
121-14-2	2,4-Dinitrotoluene	300	< 300 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-6A-3-090203  
REEXTRACT

Lab Sample ID: OL03J  
LIMS ID: 09-3400  
Matrix: Soil  
Date Analyzed: 02/17/09 17:11

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	59	< 59 U
7005-72-3	4-Chlorophenyl-phenylether	59	< 59 U
86-73-7	Fluorene	59	< 59 U
100-01-6	4-Nitroaniline	300	< 300 U
534-52-1	4,6-Dinitro-2-Methylphenol	590	< 590 U
86-30-6	N-Nitrosodiphenylamine	59	< 59 U
101-55-3	4-Bromophenyl-phenylether	59	< 59 U
118-74-1	Hexachlorobenzene	59	< 59 U
87-86-5	Pentachlorophenol	300	< 300 U
85-01-8	Phenanthrene	59	< 59 U
86-74-8	Carbazole	59	< 59 U
120-12-7	Anthracene	59	< 59 U
84-74-2	Di-n-Butylphthalate	59	< 59 U
206-44-0	Fluoranthene	59	< 59 U
129-00-0	Pyrene	59	< 59 U
85-68-7	Butylbenzylphthalate	59	< 59 U
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	Benzo(a)anthracene	59	< 59 U
117-81-7	bis(2-Ethylhexyl)phthalate	59	< 59 U
218-01-9	Chrysene	59	< 59 U
117-84-0	Di-n-Octyl phthalate	59	< 59 U
205-99-2	Benzo(b)fluoranthene	59	< 59 U
207-08-9	Benzo(k)fluoranthene	59	< 59 U
50-32-8	Benzo(a)pyrene	59	< 59 U
193-39-5	Indeno(1,2,3-cd)pyrene	59	< 59 U
53-70-3	Dibenz(a,h)anthracene	59	< 59 U
191-24-2	Benzo(g,h,i)perylene	59	< 59 U
90-12-0	1-Methylnaphthalene	59	< 59 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.4%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	76.0%	d4-1,2-Dichlorobenzene	70.4%
d5-Phenol	62.4%	2-Fluorophenol	44.5%
2,4,6-Tribromophenol	14.1%	d4-2-Chlorophenol	58.9%

Lab Sample ID: MB-020609  
LIMS ID: 09-3393  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/06/09  
Date Analyzed: 02/06/09 15:05  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3393  
Matrix: Soil  
Date Analyzed: 02/06/09 15:05

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo(a)anthracene	67	< 67 U
117-81-7	bis(2-Ethylhexyl)phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo(b)fluoranthene	67	< 67 U
207-08-9	Benzo(k)fluoranthene	67	< 67 U
50-32-8	Benzo(a)pyrene	67	< 67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67	< 67 U
53-70-3	Dibenz(a,h)anthracene	67	< 67 U
191-24-2	Benzo(g,h,i)perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	68.8%	2-Fluorobiphenyl	69.2%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	78.0%
d5-Phenol	68.3%	2-Fluorophenol	66.4%
2,4,6-Tribromophenol	68.3%	d4-2-Chlorophenol	72.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-021309  
METHOD BLANK



Lab Sample ID: MB-021309  
LIMS ID: 09-3400  
Matrix: Soil  
Data Release Authorized: *AB*  
Reported: 02/18/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/13/09  
Date Analyzed: 02/17/09 13:52  
Instrument/Analyst: NT6/LJR  
GPC Cleanup: No

Sample Amount: 7.50 g  
Final Extract Volume: 0.5 mL  
Dilution Factor: 1.00  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	67	< 67 U
111-44-4	Bis-(2-Chloroethyl) Ether	67	< 67 U
95-57-8	2-Chlorophenol	67	< 67 U
541-73-1	1,3-Dichlorobenzene	67	< 67 U
106-46-7	1,4-Dichlorobenzene	67	< 67 U
100-51-6	Benzyl Alcohol	67	< 67 U
95-50-1	1,2-Dichlorobenzene	67	< 67 U
95-48-7	2-Methylphenol	67	< 67 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	67	< 67 U
106-44-5	4-Methylphenol	67	< 67 U
621-64-7	N-Nitroso-Di-N-Propylamine	330	< 330 U
67-72-1	Hexachloroethane	67	< 67 U
98-95-3	Nitrobenzene	67	< 67 U
78-59-1	Isophorone	67	< 67 U
88-75-5	2-Nitrophenol	67	< 67 U
105-67-9	2,4-Dimethylphenol	67	< 67 U
65-85-0	Benzoic Acid	670	< 670 U
111-91-1	bis(2-Chloroethoxy) Methane	67	< 67 U
120-83-2	2,4-Dichlorophenol	330	< 330 U
120-82-1	1,2,4-Trichlorobenzene	67	< 67 U
91-20-3	Naphthalene	67	< 67 U
106-47-8	4-Chloroaniline	330	< 330 U
87-68-3	Hexachlorobutadiene	67	< 67 U
59-50-7	4-Chloro-3-methylphenol	330	< 330 U
91-57-6	2-Methylnaphthalene	67	< 67 U
77-47-4	Hexachlorocyclopentadiene	330	< 330 U
88-06-2	2,4,6-Trichlorophenol	330	< 330 U
95-95-4	2,4,5-Trichlorophenol	330	< 330 U
91-58-7	2-Chloronaphthalene	67	< 67 U
88-74-4	2-Nitroaniline	330	< 330 U
131-11-3	Dimethylphthalate	67	< 67 U
208-96-8	Acenaphthylene	67	< 67 U
99-09-2	3-Nitroaniline	330	< 330 U
83-32-9	Acenaphthene	67	< 67 U
51-28-5	2,4-Dinitrophenol	670	< 670 U
100-02-7	4-Nitrophenol	330	< 330 U
132-64-9	Dibenzofuran	67	< 67 U
606-20-2	2,6-Dinitrotoluene	330	< 330 U
121-14-2	2,4-Dinitrotoluene	330	< 330 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-021309  
METHOD BLANK

Lab Sample ID: MB-021309  
LIMS ID: 09-3400  
Matrix: Soil  
Date Analyzed: 02/17/09 13:52

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
84-66-2	Diethylphthalate	67	< 67 U
7005-72-3	4-Chlorophenyl-phenylether	67	< 67 U
86-73-7	Fluorene	67	< 67 U
100-01-6	4-Nitroaniline	330	< 330 U
534-52-1	4,6-Dinitro-2-Methylphenol	670	< 670 U
86-30-6	N-Nitrosodiphenylamine	67	< 67 U
101-55-3	4-Bromophenyl-phenylether	67	< 67 U
118-74-1	Hexachlorobenzene	67	< 67 U
87-86-5	Pentachlorophenol	330	< 330 U
85-01-8	Phenanthrene	67	< 67 U
86-74-8	Carbazole	67	< 67 U
120-12-7	Anthracene	67	< 67 U
84-74-2	Di-n-Butylphthalate	67	< 67 U
206-44-0	Fluoranthene	67	< 67 U
129-00-0	Pyrene	67	< 67 U
85-68-7	Butylbenzylphthalate	67	< 67 U
91-94-1	3,3'-Dichlorobenzidine	330	< 330 U
56-55-3	Benzo(a)anthracene	67	< 67 U
117-81-7	bis(2-Ethylhexyl)phthalate	67	< 67 U
218-01-9	Chrysene	67	< 67 U
117-84-0	Di-n-Octyl phthalate	67	< 67 U
205-99-2	Benzo(b)fluoranthene	67	< 67 U
207-08-9	Benzo(k)fluoranthene	67	< 67 U
50-32-8	Benzo(a)pyrene	67	< 67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67	< 67 U
53-70-3	Dibenz(a,h)anthracene	67	< 67 U
191-24-2	Benzo(g,h,i)perylene	67	< 67 U
90-12-0	1-Methylnaphthalene	67	< 67 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.8%	2-Fluorobiphenyl	66.4%
d14-p-Terphenyl	80.4%	d4-1,2-Dichlorobenzene	79.2%
d5-Phenol	71.2%	2-Fluorophenol	68.8%
2,4,6-Tribromophenol	82.4%	d4-2-Chlorophenol	73.6%

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
IDP-8-3-090203	64.8%	60.8%	74.0%	71.6%	45.9%	34.9%	11.8%*	51.7%		1
IDP-8-3-090203 RE	69.2%	67.6%	79.2%	76.4%	68.0%	60.5%	56.3%	69.3%		0
MB-020609	68.8%	69.2%	82.4%	78.0%	68.3%	66.4%	68.3%	72.5%		0
LCS-020609	67.6%	73.2%	90.8%	72.0%	66.1%	63.2%	88.5%	68.0%		0
LCSD-020609	67.2%	70.0%	84.4%	73.2%	63.7%	62.9%	79.7%	68.8%		0
IDP-9-3-090203	65.6%	63.6%	75.6%	73.6%	50.9%	57.3%	80.5%	64.0%		0
IDP-9-3-090203 MS	68.8%	71.6%	78.4%	73.6%	60.8%	60.5%	92.5%	68.8%		0
IDP-9-3-090203 MSD	59.6%	60.4%	78.0%	65.6%	62.9%	60.8%	82.1%	63.7%		0
IDP-12-12-090203	66.4%	64.0%	78.4%	78.0%	67.7%	69.1%	82.9%	72.5%		0
IDP-14-11-090203	64.0%	63.2%	80.8%	74.0%	64.0%	64.8%	79.2%	69.1%		0
MB-021309	70.8%	66.4%	80.4%	79.2%	71.2%	68.8%	82.4%	73.6%		0
LCS-021309	67.2%	67.6%	84.0%	74.4%	70.7%	67.2%	84.8%	69.9%		0
LCSD-021309	69.2%	70.8%	82.4%	76.8%	72.5%	69.1%	84.0%	70.7%		0
IDP-6A-3-090203	66.4%	64.4%	81.2%	74.8%	55.2%	20.4%*	2.7%*	38.4%		2
IDP-6A-3-090203 RE	64.4%	65.2%	76.0%	70.4%	62.4%	44.5%	14.1%*	58.9%		1

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546  
Log Number Range: 09-3392 to 09-3400

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3393  
Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted LCS/LCSD: 02/06/09

Sample Amount LCS: 7.50 g  
LCSD: 7.50 g

Date Analyzed LCS: 02/06/09 15:40  
LCSD: 02/06/09 16:14

Final Extract Volume LCS: 0.5 mL  
LCSD: 0.5 mL

Instrument/Analyst LCS: NT6/LJR  
LCSD: NT6/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	1050	1670	62.9%	1050	1670	62.9%	0.0%	
Bis-(2-Chloroethyl) Ether	1050	1670	62.9%	1220	1670	73.1%	15.0%	
2-Chlorophenol	1150	1670	68.9%	1180	1670	70.7%	2.6%	
1,3-Dichlorobenzene	1130	1670	67.7%	1180	1670	70.7%	4.3%	
1,4-Dichlorobenzene	1120	1670	67.1%	1180	1670	70.7%	5.2%	
Benzyl Alcohol	1270	3330	38.1%	1670	3330	50.2%	27.2%	
1,2-Dichlorobenzene	1120	1670	67.1%	1170	1670	70.1%	4.4%	
2-Methylphenol	1080	1670	64.7%	1070	1670	64.1%	0.9%	
2,2'-Oxybis(1-Chloropropane)	1120	1670	67.1%	1160	1670	69.5%	3.5%	
4-Methylphenol	2240	3330	67.3%	2250	3330	67.6%	0.4%	
N-Nitroso-Di-N-Propylamine	1150	1670	68.9%	1160	1670	69.5%	0.9%	
Hexachloroethane	1100	1670	65.9%	1160	1670	69.5%	5.3%	
Nitrobenzene	1080	1670	64.7%	1100	1670	65.9%	1.8%	
Isophorone	1180	1670	70.7%	1160	1670	69.5%	1.7%	
2-Nitrophenol	1250	1670	74.9%	1290	1670	77.2%	3.1%	
2,4-Dimethylphenol	1070	1670	64.1%	1030	1670	61.7%	3.8%	
Benzoic Acid	2060	5000	41.2%	1250	5000	25.0%	48.9%	
bis(2-Chloroethoxy) Methane	1160	1670	69.5%	1130	1670	67.7%	2.6%	
2,4-Dichlorophenol	1250	1670	74.9%	1230	1670	73.7%	1.6%	
1,2,4-Trichlorobenzene	1150	1670	68.9%	1180	1670	70.7%	2.6%	
Naphthalene	1190	1670	71.3%	1200	1670	71.9%	0.8%	
4-Chloroaniline	2600	4000	65.0%	2180	4000	54.5%	17.6%	
Hexachlorobutadiene	1200	1670	71.9%	1230	1670	73.7%	2.5%	
4-Chloro-3-methylphenol	1270	1670	76.0%	1200	1670	71.9%	5.7%	
2-Methylnaphthalene	1170	1670	70.1%	1130	1670	67.7%	3.5%	
Hexachlorocyclopentadiene	6440	5000	129%	6510	5000	130%	1.1%	
2,4,6-Trichlorophenol	1320	1670	79.0%	1250	1670	74.9%	5.4%	
2,4,5-Trichlorophenol	1290	1670	77.2%	1300	1670	77.8%	0.8%	
2-Chloronaphthalene	1390	1670	83.2%	1350	1670	80.8%	2.9%	
2-Nitroaniline	1340	1670	80.2%	1260	1670	75.4%	6.2%	
Dimethylphthalate	1340	1670	80.2%	1240	1670	74.3%	7.8%	
Acenaphthylene	1250	1670	74.9%	1200	1670	71.9%	4.1%	
3-Nitroaniline	3570	4270	83.6%	3020	4270	70.7%	16.7%	
Acenaphthene	1250	1670	74.9%	1200	1670	71.9%	4.1%	

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCSD-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3393  
Matrix: Soil  
Date Analyzed LCS: 02/06/09 15:40  
LCSD: 02/06/09 16:14

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	6120	5000	122%	5500	5000	110%	10.7%
4-Nitrophenol	1390	1670	83.2%	1210	1670	72.5%	13.8%
Dibenzofuran	1280	1670	76.6%	1220	1670	73.1%	4.8%
2,6-Dinitrotoluene	1440	1670	86.2%	1330	1670	79.6%	7.9%
2,4-Dinitrotoluene	1500	1670	89.8%	1400	1670	83.8%	6.9%
Diethylphthalate	1400	1670	83.8%	1290	1670	77.2%	8.2%
4-Chlorophenyl-phenylether	1380	1670	82.6%	1290	1670	77.2%	6.7%
Fluorene	1390	1670	83.2%	1300	1670	77.8%	6.7%
4-Nitroaniline	1390	1670	83.2%	1260	1670	75.4%	9.8%
4,6-Dinitro-2-Methylphenol	6970	5000	139%	6320	5000	126%	9.8%
N-Nitrosodiphenylamine	1380	1670	82.6%	1290	1670	77.2%	6.7%
4-Bromophenyl-phenylether	1360	1670	81.4%	1260	1670	75.4%	7.6%
Hexachlorobenzene	1340	1670	80.2%	1260	1670	75.4%	6.2%
Pentachlorophenol	853	1670	51.1%	828	1670	49.6%	3.0%
Phenanthrene	1420	1670	85.0%	1300	1670	77.8%	8.8%
Carbazole	1520	1670	91.0%	1390	1670	83.2%	8.9%
Anthracene	1420	1670	85.0%	1290	1670	77.2%	9.6%
Di-n-Butylphthalate	1600	1670	95.8%	1490	1670	89.2%	7.1%
Fluoranthene	1640	1670	98.2%	1490	1670	89.2%	9.6%
Pyrene	1450	1670	86.8%	1380	1670	82.6%	4.9%
Butylbenzylphthalate	1610	1670	96.4%	1500	1670	89.8%	7.1%
3,3'-Dichlorobenzidine	3780	4270	88.5%	3010	4270	70.5%	22.7%
Benzo(a)anthracene	1420	1670	85.0%	1330	1670	79.6%	6.5%
bis(2-Ethylhexyl)phthalate	1650	1670	98.8%	1620	1670	97.0%	1.8%
Chrysene	1290	1670	77.2%	1200	1670	71.9%	7.2%
Di-n-Octyl phthalate	1400	1670	83.8%	1310	1670	78.4%	6.6%
Benzo(b)fluoranthene	1560	1670	93.4%	1580	1670	94.6%	1.3%
Benzo(k)fluoranthene	1800	1670	108%	1460	1670	87.4%	20.9%
Benzo(a)pyrene	1360	1670	81.4%	1280	1670	76.6%	6.1%
Indeno(1,2,3-cd)pyrene	1620	1670	97.0%	1530	1670	91.6%	5.7%
Dibenz(a,h)anthracene	1560	1670	93.4%	1470	1670	88.0%	5.9%
Benzo(g,h,i)perylene	1550	1670	92.8%	1460	1670	87.4%	6.0%
1-Methylnaphthalene	1310	1670	78.4%	1280	1670	76.6%	2.3%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	67.6%	67.2%
2-Fluorobiphenyl	73.2%	70.0%
d14-p-Terphenyl	90.8%	84.4%
d4-1,2-Dichlorobenzene	72.0%	73.2%
d5-Phenol	66.1%	63.7%
2-Fluorophenol	63.2%	62.9%
2,4,6-Tribromophenol	88.5%	79.7%
d4-2-Chlorophenol	68.0%	68.8%

Results reported in  $\mu\text{g}/\text{kg}$   
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-021309  
LCS/LCSD

Lab Sample ID: LCS-021309  
LIMS ID: 09-3400  
Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 02/18/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted LCS/LCSD: 02/13/09

Sample Amount LCS: 7.50 g  
LCSD: 7.50 g

Date Analyzed LCS: 02/17/09 14:26  
LCSD: 02/17/09 14:59

Final Extract Volume LCS: 0.5 mL  
LCSD: 0.5 mL

Instrument/Analyst LCS: NT6/LJR  
LCSD: NT6/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	1090	1670	65.3%	1130	1670	67.7%	3.6%
Bis-(2-Chloroethyl) Ether	966	1670	57.8%	1040	1670	62.3%	7.4%
2-Chlorophenol	1130	1670	67.7%	1170	1670	70.1%	3.5%
1,3-Dichlorobenzene	1110	1670	66.5%	1180	1670	70.7%	6.1%
1,4-Dichlorobenzene	1130	1670	67.7%	1200	1670	71.9%	6.0%
Benzyl Alcohol	1210	3330	36.3%	1010	3330	30.3%	18.0%
1,2-Dichlorobenzene	1130	1670	67.7%	1200	1670	71.9%	6.0%
2-Methylphenol	1100	1670	65.9%	1200	1670	71.9%	8.7%
2,2'-Oxybis(1-Chloropropane)	1200	1670	71.9%	1250	1670	74.9%	4.1%
4-Methylphenol	2370	3330	71.2%	2450	3330	73.6%	3.3%
N-Nitroso-Di-N-Propylamine	1160	1670	69.5%	1210	1670	72.5%	4.2%
Hexachloroethane	1160	1670	69.5%	1240	1670	74.3%	6.7%
Nitrobenzene	1140	1670	68.3%	1200	1670	71.9%	5.1%
Isophorone	1210	1670	72.5%	1280	1670	76.6%	5.6%
2-Nitrophenol	1300	1670	77.8%	1370	1670	82.0%	5.2%
2,4-Dimethylphenol	1160	1670	69.5%	1230	1670	73.7%	5.9%
Benzoic Acid	1750	5000	35.0%	2330	5000	46.6%	28.4%
bis(2-Chloroethoxy) Methane	1160	1670	69.5%	1210	1670	72.5%	4.2%
2,4-Dichlorophenol	1310	1670	78.4%	1370	1670	82.0%	4.5%
1,2,4-Trichlorobenzene	1200	1670	71.9%	1260	1670	75.4%	4.9%
Naphthalene	1200	1670	71.9%	1270	1670	76.0%	5.7%
4-Chloroaniline	2430	4000	60.8%	2780	4000	69.5%	13.4%
Hexachlorobutadiene	1230	1670	73.7%	1330	1670	79.6%	7.8%
4-Chloro-3-methylphenol	1330	1670	79.6%	1390	1670	83.2%	4.4%
2-Methylnaphthalene	1200	1670	71.9%	1310	1670	78.4%	8.8%
Hexachlorocyclopentadiene	4500	5000	90.0%	4900	5000	98.0%	8.5%
2,4,6-Trichlorophenol	1200	1670	71.9%	1220	1670	73.1%	1.7%
2,4,5-Trichlorophenol	1350	1670	80.8%	1400	1670	83.8%	3.6%
2-Chloronaphthalene	1310	1670	78.4%	1390	1670	83.2%	5.9%
2-Nitroaniline	1260	1670	75.4%	1310	1670	78.4%	3.9%
Dimethylphthalate	1190	1670	71.3%	1240	1670	74.3%	4.1%
Acenaphthylene	1190	1670	71.3%	1250	1670	74.9%	4.9%
3-Nitroaniline	3020	4270	70.7%	3330	4270	78.0%	9.8%
Acenaphthene	1110	1670	66.5%	1170	1670	70.1%	5.3%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCSD-021309  
LCS/LCSD

Lab Sample ID: LCS-021309  
LIMS ID: 09-3400  
Matrix: Soil  
Date Analyzed LCS: 02/17/09 14:26  
LCSD: 02/17/09 14:59

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	6250	5000	125%	6460	5000	129%	3.3%
4-Nitrophenol	858	1670	51.4%	877	1670	52.5%	2.2%
Dibenzofuran	1220	1670	73.1%	1280	1670	76.6%	4.8%
2,6-Dinitrotoluene	1340	1670	80.2%	1420	1670	85.0%	5.8%
2,4-Dinitrotoluene	1420	1670	85.0%	1470	1670	88.0%	3.5%
Diethylphthalate	1280	1670	76.6%	1300	1670	77.8%	1.6%
4-Chlorophenyl-phenylether	1250	1670	74.9%	1300	1670	77.8%	3.9%
Fluorene	1310	1670	78.4%	1360	1670	81.4%	3.7%
4-Nitroaniline	1310	1670	78.4%	1380	1670	82.6%	5.2%
4,6-Dinitro-2-Methylphenol	6910	5000	138%	7050	5000	141%	2.0%
N-Nitrosodiphenylamine	1250	1670	74.9%	1260	1670	75.4%	0.8%
4-Bromophenyl-phenylether	1260	1670	75.4%	1330	1670	79.6%	5.4%
Hexachlorobenzene	1290	1670	77.2%	1360	1670	81.4%	5.3%
Pentachlorophenol	1520	1670	91.0%	1580	1670	94.6%	3.9%
Phenanthrene	1290	1670	77.2%	1330	1670	79.6%	3.1%
Carbazole	1400	1670	83.8%	1440	1670	86.2%	2.8%
Anthracene	1300	1670	77.8%	1340	1670	80.2%	3.0%
Di-n-Butylphthalate	1430	1670	85.6%	1440	1670	86.2%	0.7%
Fluoranthene	1470	1670	88.0%	1490	1670	89.2%	1.4%
Pyrene	1330	1670	79.6%	1360	1670	81.4%	2.2%
Butylbenzylphthalate	1390	1670	83.2%	1420	1670	85.0%	2.1%
3,3'-Dichlorobenzidine	2810	4270	65.8%	3170	4270	74.2%	12.0%
Benzo(a)anthracene	1330	1670	79.6%	1370	1670	82.0%	3.0%
bis(2-Ethylhexyl)phthalate	1510	1670	90.4%	1520	1670	91.0%	0.7%
Chrysene	1200	1670	71.9%	1230	1670	73.7%	2.5%
Di-n-Octyl phthalate	1260	1670	75.4%	1310	1670	78.4%	3.9%
Benzo(b)fluoranthene	1310	1670	78.4%	1380	1670	82.6%	5.2%
Benzo(k)fluoranthene	1560	1670	93.4%	1570	1670	94.0%	0.6%
Benzo(a)pyrene	1190	1670	71.3%	1230	1670	73.7%	3.3%
Indeno(1,2,3-cd)pyrene	1470	1670	88.0%	1540	1670	92.2%	4.7%
Dibenz(a,h)anthracene	1330	1670	79.6%	1380	1670	82.6%	3.7%
Benzo(g,h,i)perylene	1380	1670	82.6%	1430	1670	85.6%	3.6%
1-Methylnaphthalene	1280	1670	76.6%	1350	1670	80.8%	5.3%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	67.2%	69.2%
2-Fluorobiphenyl	67.6%	70.8%
d14-p-Terphenyl	84.0%	82.4%
d4-1,2-Dichlorobenzene	74.4%	76.8%
d5-Phenol	70.7%	72.5%
2-Fluorophenol	67.2%	69.1%
2,4,6-Tribromophenol	84.8%	84.0%
d4-2-Chlorophenol	69.9%	70.7%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: IDP-9-3-090203  
MS/MSD

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted MS/MSD: 02/06/09  
Date Analyzed MS: 02/06/09 23:09  
MSD: 02/12/09 21:25  
Instrument/Analyst MS: NT6/LJR  
MSD: NT6/LJR  
GPC Cleanup: NO

Sample Amount MS: 7.86 g-dry-wt  
MSD: 7.96 g-dry-wt  
Final Extract Volume MS: 0.5 mL  
MSD: 0.5 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Percent Moisture: 13.8 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	< 61.3	925	1590	58.2%	941	1570	59.9%	1.7%
Bis-(2-Chloroethyl) Ether	< 61.3	1110	1590	69.8%	911	1570	58.0%	19.7%
2-Chlorophenol	< 61.3	1080	1590	67.9%	1020	1570	65.0%	5.7%
1,3-Dichlorobenzene	< 61.3	1090	1590	68.6%	1000	1570	63.7%	8.6%
1,4-Dichlorobenzene	< 61.3	1110	1590	69.8%	1000	1570	63.7%	10.4%
Benzyl Alcohol	< 61.3	< 63.6 U	3180	NA	1950	3140	62.1%	NA
1,2-Dichlorobenzene	< 61.3	1120	1590	70.4%	1010	1570	64.3%	10.3%
2-Methylphenol	< 61.3	1010	1590	63.5%	1000	1570	63.7%	1.0%
2,2'-Oxybis(1-Chloropropane	< 61.3	1120	1590	70.4%	1020	1570	65.0%	9.3%
4-Methylphenol	< 61.3	2080	3180	65.4%	2090	3140	66.6%	0.5%
N-Nitroso-Di-N-Propylamine	< 306	1080	1590	67.9%	997	1570	63.5%	8.0%
Hexachloroethane	< 61.3	985	1590	61.9%	982	1570	62.5%	0.3%
Nitrobenzene	< 61.3	1050	1590	66.0%	931	1570	59.3%	12.0%
Isophorone	< 61.3	1120	1590	70.4%	1020	1570	65.0%	9.3%
2-Nitrophenol	< 61.3	1190	1590	74.8%	1090	1570	69.4%	8.8%
2,4-Dimethylphenol	< 61.3	1040	1590	65.4%	965	1570	61.5%	7.5%
Benzoic Acid	< 613	< 636 U	4770	NA	< 628 U	4710	NA	NA
bis(2-Chloroethoxy) Methane	< 61.3	1070	1590	67.3%	996	1570	63.4%	7.2%
2,4-Dichlorophenol	< 306	1130	1590	71.1%	1130	1570	72.0%	0.0%
1,2,4-Trichlorobenzene	< 61.3	1130	1590	71.1%	1010	1570	64.3%	11.2%
Naphthalene	< 61.3	1160	1590	73.0%	1030	1570	65.6%	11.9%
4-Chloroaniline	< 306	2300	3820	60.2%	2570	3770	68.2%	11.1%
Hexachlorobutadiene	< 61.3	1210	1590	76.1%	1040	1570	66.2%	15.1%
4-Chloro-3-methylphenol	< 306	1150	1590	72.3%	1160	1570	73.9%	0.9%
2-Methylnaphthalene	< 61.3	1110	1590	69.8%	1030	1570	65.6%	7.5%
Hexachlorocyclopentadiene	< 306	2740	4770	57.4%	3500	4710	74.3%	24.4%
2,4,6-Trichlorophenol	< 306	978	1590	61.5%	1090	1570	69.4%	10.8%
2,4,5-Trichlorophenol	< 306	1250	1590	78.6%	1120	1570	71.3%	11.0%
2-Chloronaphthalene	< 61.3	1290	1590	81.1%	1080	1570	68.8%	17.7%
2-Nitroaniline	< 306	1210	1590	76.1%	1070	1570	68.2%	12.3%
Dimethylphthalate	< 61.3	1200	1590	75.5%	1010	1570	64.3%	17.2%
Acenaphthylene	< 61.3	1150	1590	72.3%	989	1570	63.0%	15.1%
3-Nitroaniline	< 306	2970	4070	73.0%	3310	4020	82.3%	10.8%
Acenaphthene	< 61.3	1150	1590	72.3%	951	1570	60.6%	18.9%
2,4-Dinitrophenol	< 613	1310	4770	27.5%	1500	4710	31.8%	13.5%
4-Nitrophenol	< 306	361	1590	22.7%	1180	1570	75.2%	106%
Dibenzofuran	< 61.3	1190	1590	74.8%	1080	1570	68.8%	9.7%
2,6-Dinitrotoluene	< 306	1280	1590	80.5%	1150	1570	73.2%	10.7%
2,4-Dinitrotoluene	< 306	1320	1590	83.0%	1220	1570	77.7%	7.9%
Diethylphthalate	< 61.3	1240	1590	78.0%	1110	1570	70.7%	11.1%
4-Chlorophenyl-phenylether	< 61.3	1230	1590	77.4%	1130	1570	72.0%	8.5%
Fluorene	< 61.3	1260	1590	79.2%	1180	1570	75.2%	6.6%
4-Nitroaniline	< 306	1320	1590	83.0%	1220	1570	77.7%	7.9%
4,6-Dinitro-2-Methylphenol	< 613	2370	4770	49.7%	2460	4710	52.2%	3.7%
N-Nitrosodiphenylamine	< 61.3	1220	1590	76.7%	1130	1570	72.0%	7.7%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: IDP-9-3-090203  
MS/MSD

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Date Analyzed MS: 02/06/09 23:09  
MSD: 02/12/09 21:25

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 61.3	1210	1590	76.1%	1090	1570	69.4%	10.4%
Hexachlorobenzene	< 61.3	1210	1590	76.1%	1080	1570	68.8%	11.4%
Pentachlorophenol	< 306	1090	1590	68.6%	1000	1570	63.7%	8.6%
Phenanthrene	< 61.3	1290	1590	81.1%	1120	1570	71.3%	14.1%
Carbazole	< 61.3	1370	1590	86.2%	1200	1570	76.4%	13.2%
Anthracene	< 61.3	1300	1590	81.8%	1110	1570	70.7%	15.8%
Di-n-Butylphthalate	< 61.3	1410	1590	88.7%	1210	1570	77.1%	15.3%
Fluoranthene	< 61.3	1520	1590	95.6%	1220	1570	77.7%	21.9%
Pyrene	< 61.3	1270	1590	79.9%	1250	1570	79.6%	1.6%
Butylbenzylphthalate	< 61.3	1320	1590	83.0%	1280	1570	81.5%	3.1%
3,3'-Dichlorobenzidine	< 306	2520	4070	61.9%	3100	4020	77.1%	20.6%
Benzo(a)anthracene	< 61.3	1240	1590	78.0%	1120	1570	71.3%	10.2%
bis(2-Ethylhexyl)phthalate	< 61.3	1430	1590	89.9%	1380	1570	87.9%	3.6%
Chrysene	< 61.3	1170	1590	73.6%	1030	1570	65.6%	12.7%
Di-n-Octyl phthalate	< 61.3	1260	1590	79.2%	1130	1570	72.0%	10.9%
Benzo(b)fluoranthene	< 61.3	1520	1590	95.6%	1270	1570	80.9%	17.9%
Benzo(k)fluoranthene	< 61.3	1450	1590	91.2%	1440	1570	91.7%	0.7%
Benzo(a)pyrene	< 61.3	1220	1590	76.7%	1070	1570	68.2%	13.1%
Indeno(1,2,3-cd)pyrene	< 61.3	1290	1590	81.1%	1180	1570	75.2%	8.9%
Dibenz(a,h)anthracene	< 61.3	1260	1590	79.2%	1130	1570	72.0%	10.9%
Benzo(g,h,i)perylene	< 61.3	1120	1590	70.4%	1020	1570	65.0%	9.3%
1-Methylnaphthalene	< 61.3	1240	1590	78.0%	1140	1570	72.6%	8.4%

Results reported in  $\mu\text{g}/\text{kg}$

RPD calculated using sample concentrations per SW846.

NA-No recovery due to high concentration of analyte in original sample and/or  
calculated negative recovery.

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: IDP-7-3-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03A

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3391

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/13/09

Date Received: 02/03/09

Instrument/Analyst: NT9/PAB

Sample Amount: 4.37 g-dry-wt

Date Analyzed: 02/09/09 17:06

Purge Volume: 5.0 mL

Moisture: 10.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	<b>Methylene Chloride</b>	<b>2.3</b>	<b>4.3</b>	
67-64-1	<b>Acetone</b>	<b>5.7</b>	<b>150</b>	
75-15-0	<b>Carbon Disulfide</b>	<b>1.1</b>	<b>2.2</b>	
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
78-93-3	<b>2-Butanone</b>	<b>5.7</b>	<b>13</b>	
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.7	< 5.7	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	<b>Trichloroethene</b>	<b>1.1</b>	<b>1.6</b>	
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
71-43-2	<b>Benzene</b>	<b>1.1</b>	<b>2.7</b>	
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.7	< 5.7	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.7	< 5.7	U
591-78-6	2-Hexanone	5.7	< 5.7	U
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
108-88-3	<b>Toluene</b>	<b>1.1</b>	<b>1.7</b>	
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.3	< 2.3	U
1330-20-7	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U
95-50-1	1,2-Dichlorobenzene	1.1	< 1.1	U
541-73-1	1,3-Dichlorobenzene	1.1	< 1.1	U
106-46-7	1,4-Dichlorobenzene	1.1	< 1.1	U
107-02-8	Acrolein	5.7	< 5.7	U
74-88-4	Methyl Iodide	1.1	< 1.1	U
74-96-4	Bromoethane	2.3	< 2.3	U
107-13-1	Acrylonitrile	5.7	< 5.7	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-7-3-090203  
SAMPLE

Lab Sample ID: OL03A  
LIMS ID: 09-3391  
Matrix: Soil  
Date Analyzed: 02/09/09 17:06

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	1.1	< 1.1	U
74-95-3	Dibromomethane	1.1	< 1.1	U
630-20-6	1,1,1,2-Tetrachloroethane	1.1	< 1.1	U
96-12-8	1,2-Dibromo-3-chloropropane	5.7	< 5.7	U
96-18-4	1,2,3-Trichloropropane	2.3	< 2.3	U
110-57-6	trans-1,4-Dichloro-2-butene	5.7	< 5.7	U
108-67-8	1,3,5-Trimethylbenzene	1.1	< 1.1	U
95-63-6	1,2,4-Trimethylbenzene	1.1	< 1.1	U
87-68-3	Hexachlorobutadiene	5.7	< 5.7	U
106-93-4	Ethylene Dibromide	1.1	< 1.1	U
74-97-5	Bromochloromethane	1.1	< 1.1	U
594-20-7	2,2-Dichloropropane	1.1	< 1.1	U
142-28-9	1,3-Dichloropropane	1.1	< 1.1	U
98-82-8	Isopropylbenzene	1.1	< 1.1	U
103-65-1	n-Propylbenzene	1.1	< 1.1	U
108-86-1	Bromobenzene	1.1	< 1.1	U
95-49-8	2-Chlorotoluene	1.1	< 1.1	U
106-43-4	4-Chlorotoluene	1.1	< 1.1	U
98-06-6	tert-Butylbenzene	1.1	< 1.1	U
135-98-8	sec-Butylbenzene	1.1	< 1.1	U
99-87-6	4-Isopropyltoluene	1.1	< 1.1	U
104-51-8	n-Butylbenzene	1.1	< 1.1	U
120-82-1	1,2,4-Trichlorobenzene	5.7	< 5.7	U
91-20-3	Naphthalene	5.7	< 5.7	U
87-61-6	1,2,3-Trichlorobenzene	5.7	< 5.7	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	118%
d8-Toluene	98.1%
Bromofluorobenzene	98.6%
d4-1,2-Dichlorobenzene	104%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-8-3-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03B

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3392

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized:

Date Sampled: 02/03/09

Reported: 02/13/09

Date Received: 02/03/09

Instrument/Analyst: NT9/PAB

Sample Amount: 7.69 g-dry-wt

Date Analyzed: 02/09/09 17:32

Purge Volume: 5.0 mL

Moisture: 13.5%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.6	< 0.6	U
74-83-9	Bromomethane	0.6	< 0.6	U
75-01-4	Vinyl Chloride	0.6	< 0.6	U
75-00-3	Chloroethane	0.6	< 0.6	U
75-09-2	Methylene Chloride	1.3	< 1.3	U
67-64-1	<b>Acetone</b>	<b>3.2</b>	<b>15</b>	
75-15-0	Carbon Disulfide	0.6	< 0.6	U
75-35-4	1,1-Dichloroethene	0.6	< 0.6	U
75-34-3	1,1-Dichloroethane	0.6	< 0.6	U
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
67-66-3	Chloroform	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
78-93-3	2-Butanone	3.2	< 3.2	U
71-55-6	1,1,1-Trichloroethane	0.6	< 0.6	U
56-23-5	Carbon Tetrachloride	0.6	< 0.6	U
108-05-4	Vinyl Acetate	3.2	< 3.2	U
75-27-4	Bromodichloromethane	0.6	< 0.6	U
78-87-5	1,2-Dichloropropane	0.6	< 0.6	U
10061-01-5	cis-1,3-Dichloropropene	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
124-48-1	Dibromochloromethane	0.6	< 0.6	U
79-00-5	1,1,2-Trichloroethane	0.6	< 0.6	U
71-43-2	Benzene	0.6	< 0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	< 0.6	U
110-75-8	2-Chloroethylvinylether	3.2	< 3.2	U
75-25-2	Bromoform	0.6	< 0.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.2	< 3.2	U
591-78-6	2-Hexanone	3.2	< 3.2	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	0.6	< 0.6	U
108-88-3	Toluene	0.6	< 0.6	U
108-90-7	Chlorobenzene	0.6	< 0.6	U
100-41-4	Ethylbenzene	0.6	< 0.6	U
100-42-5	Styrene	0.6	< 0.6	U
75-69-4	Trichlorofluoromethane	0.6	< 0.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	1.3	< 1.3	U
1330-20-7	m,p-Xylene	0.6	< 0.6	U
95-47-6	o-Xylene	0.6	< 0.6	U
95-50-1	1,2-Dichlorobenzene	0.6	< 0.6	U
541-73-1	1,3-Dichlorobenzene	0.6	< 0.6	U
106-46-7	1,4-Dichlorobenzene	0.6	< 0.6	U
107-02-8	Acrolein	32	< 32	U
74-88-4	Methyl Iodide	0.6	< 0.6	U
74-96-4	Bromoethane	1.3	< 1.3	U
107-13-1	Acrylonitrile	3.2	< 3.2	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-8-3-090203  
SAMPLE

Lab Sample ID: OL03B

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3392

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/09/09 17:32

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	0.6	< 0.6	U
74-95-3	Dibromomethane	0.6	< 0.6	U
630-20-6	1,1,1,2-Tetrachloroethane	0.6	< 0.6	U
96-12-8	1,2-Dibromo-3-chloropropane	3.2	< 3.2	U
96-18-4	1,2,3-Trichloropropane	1.3	< 1.3	U
110-57-6	trans-1,4-Dichloro-2-butene	3.2	< 3.2	U
108-67-8	1,3,5-Trimethylbenzene	0.6	< 0.6	U
95-63-6	1,2,4-Trimethylbenzene	0.6	< 0.6	U
87-68-3	Hexachlorobutadiene	3.2	< 3.2	U
106-93-4	Ethylene Dibromide	0.6	< 0.6	U
74-97-5	Bromochloromethane	0.6	< 0.6	U
594-20-7	2,2-Dichloropropane	0.6	< 0.6	U
142-28-9	1,3-Dichloropropane	0.6	< 0.6	U
98-82-8	Isopropylbenzene	0.6	< 0.6	U
103-65-1	n-Propylbenzene	0.6	< 0.6	U
108-86-1	Bromobenzene	0.6	< 0.6	U
95-49-8	2-Chlorotoluene	0.6	< 0.6	U
106-43-4	4-Chlorotoluene	0.6	< 0.6	U
98-06-6	tert-Butylbenzene	0.6	< 0.6	U
135-98-8	sec-Butylbenzene	0.6	< 0.6	U
99-87-6	4-Isopropyltoluene	0.6	< 0.6	U
104-51-8	n-Butylbenzene	0.6	< 0.6	U
120-82-1	1,2,4-Trichlorobenzene	3.2	< 3.2	U
91-20-3	Naphthalene	3.2	< 3.2	U
87-61-6	1,2,3-Trichlorobenzene	3.2	< 3.2	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	112%
d8-Toluene	100%
Bromofluorobenzene	106%
d4-1,2-Dichlorobenzene	103%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: IDP-9-3-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03C

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3393

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/13/09

Date Received: 02/03/09

Instrument/Analyst: NT9/PAB

Sample Amount: 3.76 g-dry-wt

Date Analyzed: 02/09/09 17:58

Purge Volume: 5.0 mL

Moisture: 13.8%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.3	< 1.3	U
74-83-9	Bromomethane	1.3	< 1.3	U
75-01-4	Vinyl Chloride	1.3	< 1.3	U
75-00-3	Chloroethane	1.3	< 1.3	U
75-09-2	<b>Methylene Chloride</b>	<b>2.7</b>	<b>2.8</b>	
67-64-1	<b>Acetone</b>	<b>6.6</b>	<b>57</b>	
75-15-0	Carbon Disulfide	1.3	< 1.3	U
75-35-4	1,1-Dichloroethene	1.3	< 1.3	U
75-34-3	1,1-Dichloroethane	1.3	< 1.3	U
156-60-5	trans-1,2-Dichloroethene	1.3	< 1.3	U
156-59-2	cis-1,2-Dichloroethene	1.3	< 1.3	U
67-66-3	Chloroform	1.3	< 1.3	U
107-06-2	1,2-Dichloroethane	1.3	< 1.3	U
78-93-3	2-Butanone	6.6	< 6.6	U
71-55-6	1,1,1-Trichloroethane	1.3	< 1.3	U
56-23-5	Carbon Tetrachloride	1.3	< 1.3	U
108-05-4	Vinyl Acetate	6.6	< 6.6	U
75-27-4	Bromodichloromethane	1.3	< 1.3	U
78-87-5	1,2-Dichloropropane	1.3	< 1.3	U
10061-01-5	cis-1,3-Dichloropropene	1.3	< 1.3	U
79-01-6	Trichloroethene	1.3	< 1.3	U
124-48-1	Dibromochloromethane	1.3	< 1.3	U
79-00-5	1,1,2-Trichloroethane	1.3	< 1.3	U
71-43-2	<b>Benzene</b>	<b>1.3</b>	<b>9.8</b>	
10061-02-6	trans-1,3-Dichloropropene	1.3	< 1.3	U
110-75-8	2-Chloroethylvinylether	6.6	< 6.6	U
75-25-2	Bromoform	1.3	< 1.3	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	6.6	< 6.6	U
591-78-6	2-Hexanone	6.6	< 6.6	U
127-18-4	Tetrachloroethene	1.3	< 1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	< 1.3	U
108-88-3	<b>Toluene</b>	<b>1.3</b>	<b>17</b>	
108-90-7	Chlorobenzene	1.3	< 1.3	U
100-41-4	Ethylbenzene	1.3	< 1.3	U
100-42-5	Styrene	1.3	< 1.3	U
75-69-4	Trichlorofluoromethane	1.3	< 1.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.7	< 2.7	U
1330-20-7	<b>m,p-Xylene</b>	<b>1.3</b>	<b>15</b>	
95-47-6	<b>o-Xylene</b>	<b>1.3</b>	<b>7.7</b>	
95-50-1	1,2-Dichlorobenzene	1.3	< 1.3	U
541-73-1	1,3-Dichlorobenzene	1.3	< 1.3	U
106-46-7	1,4-Dichlorobenzene	1.3	< 1.3	U
107-02-8	Acrolein	66	< 66	U
74-88-4	Methyl Iodide	1.3	< 1.3	U
74-96-4	Bromoethane	2.7	< 2.7	U
107-13-1	Acrylonitrile	6.6	< 6.6	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-9-3-090203

Page 2 of 2

**SAMPLE**

Lab Sample ID: OL03C

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3393

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/09/09 17:58

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	1.3	< 1.3	U
74-95-3	Dibromomethane	1.3	< 1.3	U
630-20-6	1,1,1,2-Tetrachloroethane	1.3	< 1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	6.6	< 6.6	U
96-18-4	1,2,3-Trichloropropane	2.7	< 2.7	U
110-57-6	trans-1,4-Dichloro-2-butene	6.6	< 6.6	U
108-67-8	1,3,5-Trimethylbenzene	1.3	< 1.3	U
95-63-6	1,2,4-Trimethylbenzene	1.3	< 1.3	U
87-68-3	Hexachlorobutadiene	6.6	< 6.6	U
106-93-4	Ethylene Dibromide	1.3	< 1.3	U
74-97-5	Bromochloromethane	1.3	< 1.3	U
594-20-7	2,2-Dichloropropane	1.3	< 1.3	U
142-28-9	1,3-Dichloropropane	1.3	< 1.3	U
98-82-8	Isopropylbenzene	1.3	< 1.3	U
103-65-1	n-Propylbenzene	1.3	< 1.3	U
108-86-1	Bromobenzene	1.3	< 1.3	U
95-49-8	2-Chlorotoluene	1.3	< 1.3	U
106-43-4	4-Chlorotoluene	1.3	< 1.3	U
98-06-6	tert-Butylbenzene	1.3	< 1.3	U
135-98-8	sec-Butylbenzene	1.3	< 1.3	U
99-87-6	4-Isopropyltoluene	1.3	< 1.3	U
104-51-8	n-Butylbenzene	1.3	< 1.3	U
120-82-1	1,2,4-Trichlorobenzene	6.6	< 6.6	U
91-20-3	Naphthalene	6.6	< 6.6	U
87-61-6	1,2,3-Trichlorobenzene	6.6	< 6.6	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	109%
d8-Toluene	97.9%
Bromofluorobenzene	92.1%
d4-1,2-Dichlorobenzene	105%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-10-2-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03D

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3394

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: *AB*

Date Sampled: 02/03/09

Reported: 02/13/09

Date Received: 02/03/09

Instrument/Analyst: NT9/PAB

Sample Amount: 6.39 g-dry-wt

Date Analyzed: 02/09/09 18:24

Purge Volume: 5.0 mL

Moisture: 13.0%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
75-09-2	<b>Methylene Chloride</b>	<b>1.6</b>	<b>1.7</b>	
67-64-1	<b>Acetone</b>	<b>3.9</b>	<b>39</b>	
75-15-0	Carbon Disulfide	0.8	< 0.8	U
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
75-34-3	1,1-Dichloroethane	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
78-93-3	2-Butanone	3.9	< 3.9	U
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	3.9	< 3.9	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
71-43-2	Benzene	0.8	< 0.8	U
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	3.9	< 3.9	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.9	< 3.9	U
591-78-6	2-Hexanone	3.9	< 3.9	U
127-18-4	Tetrachloroethene	0.8	< 0.8	U
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
108-88-3	Toluene	0.8	< 0.8	U
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	1.6	< 1.6	U
1330-20-7	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U
95-50-1	1,2-Dichlorobenzene	0.8	< 0.8	U
541-73-1	1,3-Dichlorobenzene	0.8	< 0.8	U
106-46-7	1,4-Dichlorobenzene	0.8	< 0.8	U
107-02-8	Acrolein	39	< 39	U
74-88-4	Methyl Iodide	0.8	< 0.8	U
74-96-4	Bromoethane	1.6	< 1.6	U
107-13-1	Acrylonitrile	3.9	< 3.9	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-10-2-090203  
SAMPLE

Lab Sample ID: OL03D  
LIMS ID: 09-3394  
Matrix: Soil  
Date Analyzed: 02/09/09 18:24

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	0.8	< 0.8	U
74-95-3	Dibromomethane	0.8	< 0.8	U
630-20-6	1,1,1,2-Tetrachloroethane	0.8	< 0.8	U
96-12-8	1,2-Dibromo-3-chloropropane	3.9	< 3.9	U
96-18-4	1,2,3-Trichloropropane	1.6	< 1.6	U
110-57-6	trans-1,4-Dichloro-2-butene	3.9	< 3.9	U
108-67-8	1,3,5-Trimethylbenzene	0.8	< 0.8	U
95-63-6	1,2,4-Trimethylbenzene	0.8	< 0.8	U
87-68-3	Hexachlorobutadiene	3.9	< 3.9	U
106-93-4	Ethylene Dibromide	0.8	< 0.8	U
74-97-5	Bromochloromethane	0.8	< 0.8	U
594-20-7	2,2-Dichloropropane	0.8	< 0.8	U
142-28-9	1,3-Dichloropropane	0.8	< 0.8	U
98-82-8	Isopropylbenzene	0.8	< 0.8	U
103-65-1	n-Propylbenzene	0.8	< 0.8	U
108-86-1	Bromobenzene	0.8	< 0.8	U
95-49-8	2-Chlorotoluene	0.8	< 0.8	U
106-43-4	4-Chlorotoluene	0.8	< 0.8	U
98-06-6	tert-Butylbenzene	0.8	< 0.8	U
135-98-8	sec-Butylbenzene	0.8	< 0.8	U
99-87-6	4-Isopropyltoluene	0.8	< 0.8	U
104-51-8	n-Butylbenzene	0.8	< 0.8	U
120-82-1	1,2,4-Trichlorobenzene	3.9	< 3.9	U
91-20-3	Naphthalene	3.9	< 3.9	U
87-61-6	1,2,3-Trichlorobenzene	3.9	< 3.9	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	112%
d8-Toluene	101%
Bromofluorobenzene	106%
d4-1,2-Dichlorobenzene	103%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: IDP-11-11-090203  
SAMPLE

Lab Sample ID: OL03E  
LIMS ID: 09-3395  
Matrix: Soil  
Data Release Authorized:  
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Instrument/Analyst: NT9/PAB  
Date Analyzed: 02/09/09 18:50

Sample Amount: 6.30 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 19.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
75-09-2	<b>Methylene Chloride</b>	<b>1.6</b>	<b>2.0</b>	
67-64-1	<b>Acetone</b>	<b>4.0</b>	<b>31</b>	
75-15-0	Carbon Disulfide	0.8	< 0.8	U
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
75-34-3	1,1-Dichloroethane	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
78-93-3	2-Butanone	4.0	< 4.0	U
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	4.0	< 4.0	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
71-43-2	<b>Benzene</b>	<b>0.8</b>	<b>0.9</b>	
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	4.0	< 4.0	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.0	< 4.0	U
591-78-6	2-Hexanone	4.0	< 4.0	U
127-18-4	Tetrachloroethene	0.8	< 0.8	U
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
108-88-3	Toluene	0.8	< 0.8	U
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	< 1.6	U
1330-20-7	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U
95-50-1	1,2-Dichlorobenzene	0.8	< 0.8	U
541-73-1	1,3-Dichlorobenzene	0.8	< 0.8	U
106-46-7	1,4-Dichlorobenzene	0.8	< 0.8	U
107-02-8	Acrolein	4.0	< 4.0	U
74-88-4	Methyl Iodide	0.8	< 0.8	U
74-96-4	Bromoethane	1.6	< 1.6	U
107-13-1	Acrylonitrile	4.0	< 4.0	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-11-11-090203  
SAMPLE

Lab Sample ID: OL03E  
LIMS ID: 09-3395  
Matrix: Soil  
Date Analyzed: 02/09/09 18:50

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	0.8	< 0.8	U
74-95-3	Dibromomethane	0.8	< 0.8	U
630-20-6	1,1,1,2-Tetrachloroethane	0.8	< 0.8	U
96-12-8	1,2-Dibromo-3-chloropropane	4.0	< 4.0	U
96-18-4	1,2,3-Trichloropropane	1.6	< 1.6	U
110-57-6	trans-1,4-Dichloro-2-butene	4.0	< 4.0	U
108-67-8	1,3,5-Trimethylbenzene	0.8	< 0.8	U
95-63-6	1,2,4-Trimethylbenzene	0.8	< 0.8	U
87-68-3	Hexachlorobutadiene	4.0	< 4.0	U
106-93-4	Ethylene Dibromide	0.8	< 0.8	U
74-97-5	Bromochloromethane	0.8	< 0.8	U
594-20-7	2,2-Dichloropropane	0.8	< 0.8	U
142-28-9	1,3-Dichloropropane	0.8	< 0.8	U
98-82-8	Isopropylbenzene	0.8	< 0.8	U
103-65-1	n-Propylbenzene	0.8	< 0.8	U
108-86-1	Bromobenzene	0.8	< 0.8	U
95-49-8	2-Chlorotoluene	0.8	< 0.8	U
106-43-4	4-Chlorotoluene	0.8	< 0.8	U
98-06-6	tert-Butylbenzene	0.8	< 0.8	U
135-98-8	sec-Butylbenzene	0.8	< 0.8	U
99-87-6	4-Isopropyltoluene	0.8	< 0.8	U
104-51-8	n-Butylbenzene	0.8	< 0.8	U
120-82-1	1,2,4-Trichlorobenzene	4.0	< 4.0	U
91-20-3	Naphthalene	4.0	< 4.0	U
87-61-6	1,2,3-Trichlorobenzene	4.0	< 4.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	99.4%
Bromofluorobenzene	98.6%
d4-1,2-Dichlorobenzene	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: IDP-12-12-090203  
SAMPLE

Lab Sample ID: OL03F  
LIMS ID: 09-3396  
Matrix: Soil  
Data Release Authorized:  
Reported: 02/13/09



QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Instrument/Analyst: NT9/PAB  
Date Analyzed: 02/09/09 19:16

Sample Amount: 8.35 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: 24.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.6	< 0.6	U
74-83-9	Bromomethane	0.6	< 0.6	U
75-01-4	Vinyl Chloride	0.6	< 0.6	U
75-00-3	Chloroethane	0.6	< 0.6	U
75-09-2	<b>Methylene Chloride</b>	<b>1.2</b>	<b>1.7</b>	
67-64-1	<b>Acetone</b>	<b>3.0</b>	<b>21</b>	
75-15-0	Carbon Disulfide	0.6	< 0.6	U
75-35-4	1,1-Dichloroethene	0.6	< 0.6	U
75-34-3	1,1-Dichloroethane	0.6	< 0.6	U
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
67-66-3	Chloroform	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
78-93-3	2-Butanone	3.0	< 3.0	U
71-55-6	1,1,1-Trichloroethane	0.6	< 0.6	U
56-23-5	Carbon Tetrachloride	0.6	< 0.6	U
108-05-4	Vinyl Acetate	3.0	< 3.0	U
75-27-4	Bromodichloromethane	0.6	< 0.6	U
78-87-5	1,2-Dichloropropane	0.6	< 0.6	U
10061-01-5	cis-1,3-Dichloropropene	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
124-48-1	Dibromochloromethane	0.6	< 0.6	U
79-00-5	1,1,2-Trichloroethane	0.6	< 0.6	U
71-43-2	Benzene	0.6	< 0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.6	< 0.6	U
110-75-8	2-Chloroethylvinylether	3.0	< 3.0	U
75-25-2	Bromoform	0.6	< 0.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.0	< 3.0	U
591-78-6	2-Hexanone	3.0	< 3.0	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	0.6	< 0.6	U
108-88-3	Toluene	0.6	< 0.6	U
108-90-7	Chlorobenzene	0.6	< 0.6	U
100-41-4	Ethylbenzene	0.6	< 0.6	U
100-42-5	Styrene	0.6	< 0.6	U
75-69-4	Trichlorofluoromethane	0.6	< 0.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.2	< 1.2	U
1330-20-7	m,p-Xylene	0.6	< 0.6	U
95-47-6	o-Xylene	0.6	< 0.6	U
95-50-1	1,2-Dichlorobenzene	0.6	< 0.6	U
541-73-1	1,3-Dichlorobenzene	0.6	< 0.6	U
106-46-7	1,4-Dichlorobenzene	0.6	< 0.6	U
107-02-8	Acrolein	30	< 30	U
74-88-4	Methyl Iodide	0.6	< 0.6	U
74-96-4	Bromoethane	1.2	< 1.2	U
107-13-1	Acrylonitrile	3.0	< 3.0	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-12-12-090203

Page 2 of 2

SAMPLE

Lab Sample ID: OL03F

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3396

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/09/09 19:16

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	0.6	< 0.6	U
74-95-3	Dibromomethane	0.6	< 0.6	U
630-20-6	1,1,1,2-Tetrachloroethane	0.6	< 0.6	U
96-12-8	1,2-Dibromo-3-chloropropane	3.0	< 3.0	U
96-18-4	1,2,3-Trichloropropane	1.2	< 1.2	U
110-57-6	trans-1,4-Dichloro-2-butene	3.0	< 3.0	U
108-67-8	1,3,5-Trimethylbenzene	0.6	< 0.6	U
95-63-6	1,2,4-Trimethylbenzene	0.6	< 0.6	U
87-68-3	Hexachlorobutadiene	3.0	< 3.0	U
106-93-4	Ethylene Dibromide	0.6	< 0.6	U
74-97-5	Bromochloromethane	0.6	< 0.6	U
594-20-7	2,2-Dichloropropane	0.6	< 0.6	U
142-28-9	1,3-Dichloropropane	0.6	< 0.6	U
98-82-8	Isopropylbenzene	0.6	< 0.6	U
103-65-1	n-Propylbenzene	0.6	< 0.6	U
108-86-1	Bromobenzene	0.6	< 0.6	U
95-49-8	2-Chlorotoluene	0.6	< 0.6	U
106-43-4	4-Chlorotoluene	0.6	< 0.6	U
98-06-6	tert-Butylbenzene	0.6	< 0.6	U
135-98-8	sec-Butylbenzene	0.6	< 0.6	U
99-87-6	4-Isopropyltoluene	0.6	< 0.6	U
104-51-8	n-Butylbenzene	0.6	< 0.6	U
120-82-1	1,2,4-Trichlorobenzene	3.0	< 3.0	U
91-20-3	Naphthalene	3.0	< 3.0	U
87-61-6	1,2,3-Trichlorobenzene	3.0	< 3.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	101%
Bromofluorobenzene	107%
d4-1,2-Dichlorobenzene	103%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: IDP-13-12-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03G

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3397

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/13/09

Date Received: 02/03/09

Instrument/Analyst: NT9/PAB

Sample Amount: 6.56 g-dry-wt

Date Analyzed: 02/09/09 19:42

Purge Volume: 5.0 mL

Moisture: 27.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
75-09-2	Methylene Chloride	1.5	< 1.5	U
67-64-1	Acetone	3.8	38	
75-15-0	Carbon Disulfide	0.8	< 0.8	U
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
75-34-3	1,1-Dichloroethane	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
78-93-3	2-Butanone	3.8	< 3.8	U
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	3.8	< 3.8	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
71-43-2	Benzene	0.8	< 0.8	U
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	3.8	< 3.8	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.8	< 3.8	U
591-78-6	2-Hexanone	3.8	< 3.8	U
127-18-4	Tetrachloroethene	0.8	< 0.8	U
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
108-88-3	Toluene	0.8	< 0.8	U
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	< 1.5	U
1330-20-7	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U
95-50-1	1,2-Dichlorobenzene	0.8	< 0.8	U
541-73-1	1,3-Dichlorobenzene	0.8	< 0.8	U
106-46-7	1,4-Dichlorobenzene	0.8	< 0.8	U
107-02-8	Acrolein	38	< 38	U
74-88-4	Methyl Iodide	0.8	< 0.8	U
74-96-4	Bromoethane	1.5	< 1.5	U
107-13-1	Acrylonitrile	3.8	< 3.8	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-13-12-090203  
SAMPLE

Lab Sample ID: OL03G

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3397

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/09/09 19:42

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	0.8	< 0.8	U
74-95-3	Dibromomethane	0.8	< 0.8	U
630-20-6	1,1,1,2-Tetrachloroethane	0.8	< 0.8	U
96-12-8	1,2-Dibromo-3-chloropropane	3.8	< 3.8	U
96-18-4	1,2,3-Trichloropropane	1.5	< 1.5	U
110-57-6	trans-1,4-Dichloro-2-butene	3.8	< 3.8	U
108-67-8	1,3,5-Trimethylbenzene	0.8	< 0.8	U
95-63-6	1,2,4-Trimethylbenzene	0.8	< 0.8	U
87-68-3	Hexachlorobutadiene	3.8	< 3.8	U
106-93-4	Ethylene Dibromide	0.8	< 0.8	U
74-97-5	Bromochloromethane	0.8	< 0.8	U
594-20-7	2,2-Dichloropropane	0.8	< 0.8	U
142-28-9	1,3-Dichloropropane	0.8	< 0.8	U
98-82-8	Isopropylbenzene	0.8	< 0.8	U
103-65-1	n-Propylbenzene	0.8	< 0.8	U
108-86-1	Bromobenzene	0.8	< 0.8	U
95-49-8	2-Chlorotoluene	0.8	< 0.8	U
106-43-4	4-Chlorotoluene	0.8	< 0.8	U
98-06-6	tert-Butylbenzene	0.8	< 0.8	U
135-98-8	sec-Butylbenzene	0.8	< 0.8	U
99-87-6	4-Isopropyltoluene	0.8	< 0.8	U
104-51-8	n-Butylbenzene	0.8	< 0.8	U
120-82-1	1,2,4-Trichlorobenzene	3.8	< 3.8	U
91-20-3	Naphthalene	3.8	< 3.8	U
87-61-6	1,2,3-Trichlorobenzene	3.8	< 3.8	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	100%
Bromofluorobenzene	105%
d4-1,2-Dichlorobenzene	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-14-11-090203

Page 1 of 2

**SAMPLE**

Lab Sample ID: OL03H

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3398

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: *AB*

Date Sampled: 02/03/09

Reported: 02/13/09

Date Received: 02/03/09

Instrument/Analyst: NT9/PAB

Sample Amount: 5.80 g-dry-wt

Date Analyzed: 02/09/09 20:08

Purge Volume: 5.0 mL

Moisture: 25.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.9	< 0.9	U
74-83-9	Bromomethane	0.9	< 0.9	U
75-01-4	Vinyl Chloride	0.9	< 0.9	U
75-00-3	Chloroethane	0.9	< 0.9	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>1.7</b>	<b>3.4</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>4.3</b>	<b>30</b>	
75-15-0	Carbon Disulfide	0.9	< 0.9	U
75-35-4	1,1-Dichloroethene	0.9	< 0.9	U
75-34-3	1,1-Dichloroethane	0.9	< 0.9	U
156-60-5	trans-1,2-Dichloroethene	0.9	< 0.9	U
156-59-2	cis-1,2-Dichloroethene	0.9	< 0.9	U
67-66-3	Chloroform	0.9	< 0.9	U
107-06-2	1,2-Dichloroethane	0.9	< 0.9	U
78-93-3	2-Butanone	4.3	< 4.3	U
71-55-6	1,1,1-Trichloroethane	0.9	< 0.9	U
56-23-5	Carbon Tetrachloride	0.9	< 0.9	U
108-05-4	Vinyl Acetate	4.3	< 4.3	U
75-27-4	Bromodichloromethane	0.9	< 0.9	U
78-87-5	1,2-Dichloropropane	0.9	< 0.9	U
10061-01-5	cis-1,3-Dichloropropene	0.9	< 0.9	U
79-01-6	Trichloroethene	0.9	< 0.9	U
124-48-1	Dibromochloromethane	0.9	< 0.9	U
79-00-5	1,1,2-Trichloroethane	0.9	< 0.9	U
<b>71-43-2</b>	<b>Benzene</b>	<b>0.9</b>	<b>0.9</b>	
10061-02-6	trans-1,3-Dichloropropene	0.9	< 0.9	U
110-75-8	2-Chloroethylvinylether	4.3	< 4.3	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.3	< 4.3	U
591-78-6	2-Hexanone	4.3	< 4.3	U
127-18-4	Tetrachloroethene	0.9	< 0.9	U
79-34-5	1,1,2,2-Tetrachloroethane	0.9	< 0.9	U
108-88-3	Toluene	0.9	< 0.9	U
108-90-7	Chlorobenzene	0.9	< 0.9	U
100-41-4	Ethylbenzene	0.9	< 0.9	U
100-42-5	Styrene	0.9	< 0.9	U
75-69-4	Trichlorofluoromethane	0.9	< 0.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.7	< 1.7	U
1330-20-7	m,p-Xylene	0.9	< 0.9	U
95-47-6	o-Xylene	0.9	< 0.9	U
95-50-1	1,2-Dichlorobenzene	0.9	< 0.9	U
541-73-1	1,3-Dichlorobenzene	0.9	< 0.9	U
106-46-7	1,4-Dichlorobenzene	0.9	< 0.9	U
107-02-8	Acrolein	4.3	< 4.3	U
<b>74-88-4</b>	<b>Methyl Iodide</b>	<b>0.9</b>	<b>3.2</b>	
74-96-4	Bromoethane	1.7	< 1.7	U
107-13-1	Acrylonitrile	4.3	< 4.3	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-14-11-090203

Page 2 of 2

SAMPLE

Lab Sample ID: OL03H

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3398

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/09/09 20:08

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	0.9	< 0.9	U
74-95-3	Dibromomethane	0.9	< 0.9	U
630-20-6	1,1,1,2-Tetrachloroethane	0.9	< 0.9	U
96-12-8	1,2-Dibromo-3-chloropropane	4.3	< 4.3	U
96-18-4	1,2,3-Trichloropropane	1.7	< 1.7	U
110-57-6	trans-1,4-Dichloro-2-butene	4.3	< 4.3	U
108-67-8	1,3,5-Trimethylbenzene	0.9	< 0.9	U
95-63-6	1,2,4-Trimethylbenzene	0.9	< 0.9	U
87-68-3	Hexachlorobutadiene	4.3	< 4.3	U
106-93-4	Ethylene Dibromide	0.9	< 0.9	U
74-97-5	Bromochloromethane	0.9	< 0.9	U
594-20-7	2,2-Dichloropropane	0.9	< 0.9	U
142-28-9	1,3-Dichloropropane	0.9	< 0.9	U
98-82-8	Isopropylbenzene	0.9	< 0.9	U
103-65-1	n-Propylbenzene	0.9	< 0.9	U
108-86-1	Bromobenzene	0.9	< 0.9	U
95-49-8	2-Chlorotoluene	0.9	< 0.9	U
106-43-4	4-Chlorotoluene	0.9	< 0.9	U
98-06-6	tert-Butylbenzene	0.9	< 0.9	U
135-98-8	sec-Butylbenzene	0.9	< 0.9	U
99-87-6	4-Isopropyltoluene	0.9	< 0.9	U
104-51-8	n-Butylbenzene	0.9	< 0.9	U
120-82-1	1,2,4-Trichlorobenzene	4.3	< 4.3	U
91-20-3	Naphthalene	4.3	< 4.3	U
87-61-6	1,2,3-Trichlorobenzene	4.3	< 4.3	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	99.5%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	101%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: IDP-15-12-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03I

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3399

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/13/09

Date Received: 02/03/09

Instrument/Analyst: NT9/PAB

Sample Amount: 7.77 g-dry-wt

Date Analyzed: 02/10/09 15:23

Purge Volume: 5.0 mL

Moisture: 28.7%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.6	< 0.6	U
74-83-9	Bromomethane	0.6	< 0.6	U
75-01-4	Vinyl Chloride	0.6	< 0.6	U
75-00-3	Chloroethane	0.6	< 0.6	U
75-09-2	Methylene Chloride	1.3	2.2	
67-64-1	Acetone	3.2	58	
75-15-0	Carbon Disulfide	0.6	2.6	
75-35-4	1,1-Dichloroethene	0.6	< 0.6	U
75-34-3	1,1-Dichloroethane	0.6	< 0.6	U
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
67-66-3	Chloroform	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
78-93-3	2-Butanone	3.2	7.4	
71-55-6	1,1,1-Trichloroethane	0.6	< 0.6	U
56-23-5	Carbon Tetrachloride	0.6	< 0.6	U
108-05-4	Vinyl Acetate	3.2	< 3.2	U
75-27-4	Bromodichloromethane	0.6	< 0.6	U
78-87-5	1,2-Dichloropropane	0.6	< 0.6	U
10061-01-5	cis-1,3-Dichloropropene	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
124-48-1	Dibromochloromethane	0.6	< 0.6	U
79-00-5	1,1,2-Trichloroethane	0.6	< 0.6	U
71-43-2	Benzene	0.6	0.7	
10061-02-6	trans-1,3-Dichloropropene	0.6	< 0.6	U
110-75-8	2-Chloroethylvinylether	3.2	< 3.2	U
75-25-2	Bromoform	0.6	< 0.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.2	< 3.2	U
591-78-6	2-Hexanone	3.2	< 3.2	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	0.6	< 0.6	U
108-88-3	Toluene	0.6	< 0.6	U
108-90-7	Chlorobenzene	0.6	< 0.6	U
100-41-4	Ethylbenzene	0.6	< 0.6	U
100-42-5	Styrene	0.6	< 0.6	U
75-69-4	Trichlorofluoromethane	0.6	< 0.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.3	< 1.3	U
1330-20-7	m,p-Xylene	0.6	< 0.6	U
95-47-6	o-Xylene	0.6	< 0.6	U
95-50-1	1,2-Dichlorobenzene	0.6	< 0.6	U
541-73-1	1,3-Dichlorobenzene	0.6	< 0.6	U
106-46-7	1,4-Dichlorobenzene	0.6	< 0.6	U
107-02-8	Acrolein	32	< 32	U
74-88-4	Methyl Iodide	0.6	< 0.6	U
74-96-4	Bromoethane	1.3	< 1.3	U
107-13-1	Acrylonitrile	3.2	< 3.2	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-15-12-090203

Page 2 of 2

SAMPLE

Lab Sample ID: OL03I

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3399

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/10/09 15:23

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	0.6	< 0.6	U
74-95-3	Dibromomethane	0.6	< 0.6	U
630-20-6	1,1,1,2-Tetrachloroethane	0.6	< 0.6	U
96-12-8	1,2-Dibromo-3-chloropropane	3.2	< 3.2	U
96-18-4	1,2,3-Trichloropropane	1.3	< 1.3	U
110-57-6	trans-1,4-Dichloro-2-butene	3.2	< 3.2	U
108-67-8	1,3,5-Trimethylbenzene	0.6	< 0.6	U
95-63-6	1,2,4-Trimethylbenzene	0.6	< 0.6	U
87-68-3	Hexachlorobutadiene	3.2	< 3.2	U
106-93-4	Ethylene Dibromide	0.6	< 0.6	U
74-97-5	Bromochloromethane	0.6	< 0.6	U
594-20-7	2,2-Dichloropropane	0.6	< 0.6	U
142-28-9	1,3-Dichloropropane	0.6	< 0.6	U
98-82-8	Isopropylbenzene	0.6	< 0.6	U
103-65-1	n-Propylbenzene	0.6	< 0.6	U
108-86-1	Bromobenzene	0.6	< 0.6	U
95-49-8	2-Chlorotoluene	0.6	< 0.6	U
106-43-4	4-Chlorotoluene	0.6	< 0.6	U
98-06-6	tert-Butylbenzene	0.6	< 0.6	U
135-98-8	sec-Butylbenzene	0.6	< 0.6	U
99-87-6	4-Isopropyltoluene	0.6	< 0.6	U
104-51-8	n-Butylbenzene	0.6	< 0.6	U
120-82-1	1,2,4-Trichlorobenzene	3.2	< 3.2	U
91-20-3	Naphthalene	3.2	< 3.2	U
87-61-6	1,2,3-Trichlorobenzene	3.2	< 3.2	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	108%
d8-Toluene	95.4%
Bromofluorobenzene	88.7%
d4-1,2-Dichlorobenzene	94.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: MB-020909  
METHOD BLANK

Lab Sample ID: MB-020909  
LIMS ID: 09-3391  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/13/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT9/PAB  
Date Analyzed: 02/09/09 11:01

Sample Amount: 5.00 g-dry-wt  
Purge Volume: 5.0 mL  
Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-020909

Page 2 of 2

METHOD BLANK

Lab Sample ID: MB-020909

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3391

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/09/09 11:01

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	95.2%
d8-Toluene	99.3%
Bromofluorobenzene	99.3%
d4-1,2-Dichlorobenzene	96.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021009

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-021009

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3399

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: *[Signature]*

Date Sampled: NA

Reported: 02/13/09

Date Received: NA

Instrument/Analyst: NT9/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 02/10/09 14:49

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021009

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METHOD BLANK

Lab Sample ID: MB-021009

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3399

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Date Analyzed: 02/10/09 14:49

CAS Number	Analyte	RL	Result	Q
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	90.1%
d8-Toluene	98.9%
Bromofluorobenzene	99.9%
d4-1,2-Dichlorobenzene	97.9%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: OL03-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-020909	Method Blank	Low	95.2%	99.3%	99.3%	96.8%	0
LCS-020909	Lab Control	Low	94.4%	99.1%	98.9%	97.6%	0
LCSD-020909	Lab Control Dup	Low	100%	99.2%	100%	99.2%	0
OL03A	IDP-7-3-090203	Low	118%	98.1%	98.6%	104%	0
OL03B	IDP-8-3-090203	Low	112%	100%	106%	103%	0
OL03C	IDP-9-3-090203	Low	109%	97.9%	92.1%	105%	0
OL03D	IDP-10-2-090203	Low	112%	101%	106%	103%	0
OL03E	IDP-11-11-090203	Low	108%	99.4%	98.6%	100%	0
OL03F	IDP-12-12-090203	Low	115%	101%	107%	103%	0
OL03G	IDP-13-12-090203	Low	108%	100%	105%	100%	0
OL03H	IDP-14-11-090203	Low	115%	99.5%	103%	101%	0
MB-021009	Method Blank	Low	90.1%	98.9%	99.9%	97.9%	0
LCS-021009	Lab Control	Low	98.7%	99.4%	98.1%	98.2%	0
LCSD-021009	Lab Control Dup	Low	96.2%	99.6%	103%	97.3%	0
OL03I	IDP-15-12-090203	Low	108%	95.4%	88.7%	94.5%	0

LCS/MB LIMITS

QC LIMITS

SW8260B	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	75-120	76-120	72-134	69-120
(TOL) = d8-Toluene	80-122	80-120	78-124	80-120
(BFB) = Bromofluorobenzene	79-120	80-120	66-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	79-120	80-120

Log Number Range: 09-3391 to 09-3399

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-020909

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-020909

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3391

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 02/13/09

Date Received: NA

Instrument/Analyst LCS: NT9/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCSD: NT9/PAB

LCSD: 5.00 g-dry-wt

Date Analyzed LCS: 02/09/09 09:43

Purge Volume LCS: 5.0 mL

LCSD: 02/09/09 10:09

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	68.3	50.0	137%	67.2	50.0	134%	1.6%
Bromomethane	57.5	50.0	115%	57.8	50.0	116%	0.5%
Vinyl Chloride	63.2	50.0	126%	61.7	50.0	123%	2.4%
Chloroethane	58.9	50.0	118%	56.9	50.0	114%	3.5%
Methylene Chloride	49.4	50.0	98.8%	50.5	50.0	101%	2.2%
Acetone	227	250	90.8%	254	250	102%	11.2%
Carbon Disulfide	53.5	50.0	107%	51.9	50.0	104%	3.0%
1,1-Dichloroethene	57.6	50.0	115%	56.6	50.0	113%	1.8%
1,1-Dichloroethane	53.8	50.0	108%	53.2	50.0	106%	1.1%
trans-1,2-Dichloroethene	51.4	50.0	103%	49.7	50.0	99.4%	3.4%
cis-1,2-Dichloroethene	53.0	50.0	106%	52.4	50.0	105%	1.1%
Chloroform	53.6	50.0	107%	53.0	50.0	106%	1.1%
1,2-Dichloroethane	50.4	50.0	101%	51.7	50.0	103%	2.5%
2-Butanone	226	250	90.4%	251	250	100%	10.5%
1,1,1-Trichloroethane	55.6	50.0	111%	54.4	50.0	109%	2.2%
Carbon Tetrachloride	55.5	50.0	111%	53.9	50.0	108%	2.9%
Vinyl Acetate	45.2	50.0	90.4%	48.2	50.0	96.4%	6.4%
Bromodichloromethane	49.0	50.0	98.0%	49.1	50.0	98.2%	0.2%
1,2-Dichloropropane	51.4	50.0	103%	51.2	50.0	102%	0.4%
cis-1,3-Dichloropropene	51.2	50.0	102%	51.4	50.0	103%	0.4%
Trichloroethene	55.1	50.0	110%	53.2	50.0	106%	3.5%
Dibromochloromethane	50.3	50.0	101%	50.6	50.0	101%	0.6%
1,1,2-Trichloroethane	46.6	50.0	93.2%	49.2	50.0	98.4%	5.4%
Benzene	52.4	50.0	105%	50.7	50.0	101%	3.3%
trans-1,3-Dichloropropene	53.2	50.0	106%	54.8	50.0	110%	3.0%
2-Chloroethylvinylether	75.9	50.0	152%	82.2	50.0	164%	8.0%
Bromoform	60.6	50.0	121%	59.4	50.0	119%	2.0%
4-Methyl-2-Pentanone (MIBK)	225	250	90.0%	255	250	102%	12.5%
2-Hexanone	227	250	90.8%	250	250	100%	9.6%
Tetrachloroethene	57.0	50.0	114%	53.4	50.0	107%	6.5%
1,1,2,2-Tetrachloroethane	53.2	50.0	106%	53.9	50.0	108%	1.3%
Toluene	51.7	50.0	103%	50.7	50.0	101%	2.0%
Chlorobenzene	53.4	50.0	107%	51.1	50.0	102%	4.4%
Ethylbenzene	55.4	50.0	111%	50.9	50.0	102%	8.5%
Styrene	54.4	50.0	109%	51.9	50.0	104%	4.7%
Trichlorofluoromethane	68.0	50.0	136%	56.6	50.0	113%	18.3%
1,1,2-Trichloro-1,2,2-trifluoroethane	61.3	50.0	123%	59.3	50.0	119%	3.3%
m,p-Xylene	108	100	108%	102	100	102%	5.7%
o-Xylene	52.4	50.0	105%	50.2	50.0	100%	4.3%
1,2-Dichlorobenzene	56.9	50.0	114%	52.2	50.0	104%	8.6%
1,3-Dichlorobenzene	60.0	50.0	120%	53.7	50.0	107%	11.1%
1,4-Dichlorobenzene	58.7	50.0	117%	52.3	50.0	105%	11.5%
Acrolein	381	250	152%	418	250	167%	9.3%
Methyl Iodide	79.4	50.0	159%	76.2	50.0	152%	4.1%
Bromoethane	71.2	50.0	142%	68.7	50.0	137%	3.6%
Acrylonitrile	50.3	50.0	101%	54.2	50.0	108%	7.5%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-020909

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-020909

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3391

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,1-Dichloropropene	54.6	50.0	109%	53.2	50.0	106%	2.6%
Dibromomethane	48.7	50.0	97.4%	51.4	50.0	103%	5.4%
1,1,1,2-Tetrachloroethane	54.4	50.0	109%	53.1	50.0	106%	2.4%
1,2-Dibromo-3-chloropropane	50.6	50.0	101%	51.8	50.0	104%	2.3%
1,2,3-Trichloropropane	51.1	50.0	102%	51.4	50.0	103%	0.6%
trans-1,4-Dichloro-2-butene	58.4	50.0	117%	60.2	50.0	120%	3.0%
1,3,5-Trimethylbenzene	61.6	50.0	123%	55.2	50.0	110%	11.0%
1,2,4-Trimethylbenzene	61.2	50.0	122%	54.6	50.0	109%	11.4%
Hexachlorobutadiene	60.8	50.0	122%	53.1	50.0	106%	13.5%
Ethylene Dibromide	46.5	50.0	93.0%	49.0	50.0	98.0%	5.2%
Bromochloromethane	51.8	50.0	104%	52.8	50.0	106%	1.9%
2,2-Dichloropropane	57.0	50.0	114%	55.6	50.0	111%	2.5%
1,3-Dichloropropane	48.4	50.0	96.8%	49.1	50.0	98.2%	1.4%
Isopropylbenzene	73.0	50.0	146%	65.8	50.0	132%	10.4%
n-Propylbenzene	64.9	50.0	130%	57.6	50.0	115%	11.9%
Bromobenzene	61.6	50.0	123%	56.8	50.0	114%	8.1%
2-Chlorotoluene	58.9	50.0	118%	53.7	50.0	107%	9.2%
4-Chlorotoluene	61.3	50.0	123%	55.0	50.0	110%	10.8%
tert-Butylbenzene	65.3	50.0	131%	58.5	50.0	117%	11.0%
sec-Butylbenzene	62.4	50.0	125%	55.5	50.0	111%	11.7%
4-Isopropyltoluene	63.2	50.0	126%	55.6	50.0	111%	12.8%
n-Butylbenzene	62.5	50.0	125%	54.0	50.0	108%	14.6%
1,2,4-Trichlorobenzene	56.5	50.0	113%	49.8	50.0	99.6%	12.6%
Naphthalene	48.6	50.0	97.2%	48.2	50.0	96.4%	0.8%
1,2,3-Trichlorobenzene	53.1	50.0	106%	48.9	50.0	97.8%	8.2%

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	94.4%	100%
d8-Toluene	99.1%	99.2%
Bromofluorobenzene	98.9%	100%
d4-1,2-Dichlorobenzene	97.6%	99.2%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021009

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-021009

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3399

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Data Release Authorized:

Date Sampled: NA

Reported: 02/13/09

Date Received: NA

Instrument/Analyst LCS: NT9/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCSD: NT9/PAB

LCSD: 5.00 g-dry-wt

Date Analyzed LCS: 02/10/09 13:55

Purge Volume LCS: 5.0 mL

LCSD: 02/10/09 14:23

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	45.6	50.0	91.2%	46.3	50.0	92.6%	1.5%
Bromomethane	50.9	50.0	102%	52.2	50.0	104%	2.5%
Vinyl Chloride	52.3	50.0	105%	52.6	50.0	105%	0.6%
Chloroethane	54.6	50.0	109%	58.4	50.0	117%	6.7%
Methylene Chloride	49.5	50.0	99.0%	50.0	50.0	100%	1.0%
Acetone	236	250	94.4%	210	250	84.0%	11.7%
Carbon Disulfide	49.3	50.0	98.6%	50.3	50.0	101%	2.0%
1,1-Dichloroethene	53.1	50.0	106%	55.1	50.0	110%	3.7%
1,1-Dichloroethane	51.6	50.0	103%	52.7	50.0	105%	2.1%
trans-1,2-Dichloroethene	50.4	50.0	101%	52.1	50.0	104%	3.3%
cis-1,2-Dichloroethene	51.5	50.0	103%	52.3	50.0	105%	1.5%
Chloroform	52.6	50.0	105%	52.6	50.0	105%	0.0%
1,2-Dichloroethane	48.7	50.0	97.4%	49.0	50.0	98.0%	0.6%
2-Butanone	233	250	93.2%	218	250	87.2%	6.7%
1,1,1-Trichloroethane	52.3	50.0	105%	54.4	50.0	109%	3.9%
Carbon Tetrachloride	50.6	50.0	101%	52.9	50.0	106%	4.4%
Vinyl Acetate	45.3	50.0	90.6%	43.6	50.0	87.2%	3.8%
Bromodichloromethane	50.0	50.0	100%	51.0	50.0	102%	2.0%
1,2-Dichloropropane	48.6	50.0	97.2%	50.4	50.0	101%	3.6%
cis-1,3-Dichloropropene	48.3	50.0	96.6%	49.4	50.0	98.8%	2.3%
Trichloroethene	50.2	50.0	100%	52.5	50.0	105%	4.5%
Dibromochloromethane	48.9	50.0	97.8%	48.9	50.0	97.8%	0.0%
1,1,2-Trichloroethane	46.7	50.0	93.4%	46.4	50.0	92.8%	0.6%
Benzene	49.1	50.0	98.2%	50.7	50.0	101%	3.2%
trans-1,3-Dichloropropene	48.4	50.0	96.8%	49.0	50.0	98.0%	1.2%
2-Chloroethylvinylether	66.7	50.0	133%	64.4	50.0	129%	3.5%
Bromoform	60.2	50.0	120%	51.8	50.0	104%	15.0%
4-Methyl-2-Pentanone (MIBK)	232	250	92.8%	221	250	88.4%	4.9%
2-Hexanone	234	250	93.6%	215	250	86.0%	8.5%
Tetrachloroethene	51.5	50.0	103%	52.6	50.0	105%	2.1%
1,1,2,2-Tetrachloroethane	53.9	50.0	108%	46.2	50.0	92.4%	15.4%
Toluene	49.0	50.0	98.0%	50.4	50.0	101%	2.8%
Chlorobenzene	49.6	50.0	99.2%	50.8	50.0	102%	2.4%
Ethylbenzene	50.1	50.0	100%	51.5	50.0	103%	2.8%
Styrene	51.4	50.0	103%	52.7	50.0	105%	2.5%
Trichlorofluoromethane	62.3	50.0	125%	64.1	50.0	128%	2.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	56.1	50.0	112%	57.7	50.0	115%	2.8%
m,p-Xylene	99.7	100	99.7%	103	100	103%	3.3%
o-Xylene	49.0	50.0	98.0%	51.0	50.0	102%	4.0%
1,2-Dichlorobenzene	54.6	50.0	109%	50.0	50.0	100%	8.8%
1,3-Dichlorobenzene	57.1	50.0	114%	52.3	50.0	105%	8.8%
1,4-Dichlorobenzene	56.1	50.0	112%	51.6	50.0	103%	8.4%
Acrolein	214	250	85.6%	203	250	81.2%	5.3%
Methyl Iodide	70.0	50.0	140%	73.9	50.0	148%	5.4%
Bromoethane	64.4	50.0	129%	66.1	50.0	132%	2.6%
Acrylonitrile	47.7	50.0	95.4%	45.4	50.0	90.8%	4.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021009

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-021009

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3399

Project: BOEING ISAACSON

Matrix: Soil

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,1-Dichloropropene	50.7	50.0	101%	51.3	50.0	103%	1.2%
Dibromomethane	48.1	50.0	96.2%	48.0	50.0	96.0%	0.2%
1,1,1,2-Tetrachloroethane	51.0	50.0	102%	52.1	50.0	104%	2.1%
1,2-Dibromo-3-chloropropane	50.8	50.0	102%	44.1	50.0	88.2%	14.1%
1,2,3-Trichloropropane	57.2	50.0	114%	49.2	50.0	98.4%	15.0%
trans-1,4-Dichloro-2-butene	54.2	50.0	108%	46.4	50.0	92.8%	15.5%
1,3,5-Trimethylbenzene	58.1	50.0	116%	53.4	50.0	107%	8.4%
1,2,4-Trimethylbenzene	57.3	50.0	115%	52.7	50.0	105%	8.4%
Hexachlorobutadiene	55.4	50.0	111%	54.8	50.0	110%	1.1%
Ethylene Dibromide	46.5	50.0	93.0%	46.3	50.0	92.6%	0.4%
Bromochloromethane	51.6	50.0	103%	50.8	50.0	102%	1.6%
2,2-Dichloropropane	52.9	50.0	106%	54.6	50.0	109%	3.2%
1,3-Dichloropropane	47.7	50.0	95.4%	47.1	50.0	94.2%	1.3%
Isopropylbenzene	59.4	50.0	119%	54.4	50.0	109%	8.8%
n-Propylbenzene	60.4	50.0	121%	55.5	50.0	111%	8.5%
Bromobenzene	59.4	50.0	119%	53.4	50.0	107%	10.6%
2-Chlorotoluene	55.8	50.0	112%	51.1	50.0	102%	8.8%
4-Chlorotoluene	57.9	50.0	116%	52.6	50.0	105%	9.6%
tert-Butylbenzene	60.6	50.0	121%	56.2	50.0	112%	7.5%
sec-Butylbenzene	58.3	50.0	117%	54.2	50.0	108%	7.3%
4-Isopropyltoluene	58.5	50.0	117%	54.4	50.0	109%	7.3%
n-Butylbenzene	59.4	50.0	119%	55.3	50.0	111%	7.1%
1,2,4-Trichlorobenzene	54.4	50.0	109%	51.1	50.0	102%	6.3%
Naphthalene	49.7	50.0	99.4%	46.3	50.0	92.6%	7.1%
1,2,3-Trichlorobenzene	53.0	50.0	106%	50.7	50.0	101%	4.4%

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	98.7%	96.2%
d8-Toluene	99.4%	99.6%
Bromofluorobenzene	98.1%	103%
d4-1,2-Dichlorobenzene	98.2%	97.3%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: IDP-8-GW-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03K

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3401

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/18/09

Date Received: 02/03/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 16:05

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
<b>75-01-4</b>	<b>Vinyl Chloride</b>	<b>0.2</b>	<b>0.2</b>	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
<b>156-59-2</b>	<b>cis-1,2-Dichloroethene</b>	<b>0.2</b>	<b>0.5</b>	
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-8-GW-090203  
SAMPLE

Lab Sample ID: OL03K  
LIMS ID: 09-3401  
Matrix: Water  
Date Analyzed: 02/13/09 16:05

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.7%
d8-Toluene	99.2%
Bromofluorobenzene	97.7%
d4-1,2-Dichlorobenzene	101%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2Sample ID: IDP-9-GW-090203  
SAMPLE

Lab Sample ID: OL03L

LIMS ID: 09-3402

Matrix: Water

Data Release Authorized: 

Reported: 02/18/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Instrument/Analyst: NT5/JZ

Date Analyzed: 02/13/09 16:33

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-9-GW-090203  
SAMPLE

Lab Sample ID: OL03L  
LIMS ID: 09-3402  
Matrix: Water  
Date Analyzed: 02/13/09 16:33

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	101%
d8-Toluene	98.8%
Bromofluorobenzene	96.2%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-12-GW-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03M

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3403

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: 02/03/09

Reported: 02/18/09

Date Received: 02/03/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/12/09 23:34

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-12-GW-090203

Page 2 of 2

SAMPLE

Lab Sample ID: OL03M

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3403

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/12/09 23:34

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	98.4%
Bromofluorobenzene	96.3%
d4-1,2-Dichlorobenzene	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: IDP-14-GW-090203

Page 1 of 2

SAMPLE

Lab Sample ID: OL03N

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3404

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/18/09

Date Received: 02/03/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 00:01

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: IDP-14-GW-090203  
SAMPLE

Lab Sample ID: OL03N

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3404

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/13/09 00:01

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	99.4%
Bromofluorobenzene	96.9%
d4-1,2-Dichlorobenzene	103%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: TB

Page 1 of 2

SAMPLE

Lab Sample ID: OL030

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3405

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/03/09

Reported: 02/18/09

Date Received: 02/03/09

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/12/09 20:52

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: TB

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SAMPLE

Lab Sample ID: OL030

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3405

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/12/09 20:52

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.8%
d8-Toluene	100%
Bromofluorobenzene	96.4%
d4-1,2-Dichlorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021209

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-021209

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3403

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 02/18/09

Date Received: NA

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/12/09 19:58

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3403

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/12/09 19:58

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	0.7	
87-61-6	1,2,3-Trichlorobenzene	0.5	0.5	

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	100%
d8-Toluene	99.1%
Bromofluorobenzene	98.3%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021309

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-021309

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3401

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: NA

Reported: 02/18/09

Date Received: NA

Instrument/Analyst: NT5/JZ

Sample Amount: 10.0 mL

Date Analyzed: 02/13/09 12:02

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: MB-021309  
METHOD BLANK

Lab Sample ID: MB-021309

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3401

Project: BOEING ISAACSON

Matrix: Water

025173.090

Date Analyzed: 02/13/09 12:02

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	<b>Naphthalene</b>	<b>0.5</b>	<b>0.5</b>	
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.0%
d8-Toluene	99.0%
Bromofluorobenzene	94.6%
d4-1,2-Dichlorobenzene	100%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: OL03-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-021309	Method Blank	10	98.0%	99.0%	94.6%	100%	0
LCS-021209	Lab Control	10	97.3%	100%	101%	102%	0
LCSD-021209	Lab Control Dup	10	97.3%	99.7%	100%	99.9%	0
OL03K	IDP-8-GW-090203	10	98.7%	99.2%	97.7%	101%	0
OL03L	IDP-9-GW-090203	10	101%	98.8%	96.2%	101%	0
MB-021209	Method Blank	10	100%	99.1%	98.3%	101%	0
LCS-021309	Lab Control	10	99.5%	100%	100%	101%	0
LCSD-021309	Lab Control Dup	10	99.8%	100%	101%	101%	0
OL03M	IDP-12-GW-090203	10	100%	98.4%	96.3%	100%	0
OL03N	IDP-14-GW-090203	10	100%	99.4%	96.9%	103%	0
OL03O	TB	10	98.8%	100%	96.4%	101%	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane	70-130	70-130
(TOL) = d8-Toluene	70-130	70-130
(BFB) = Bromofluorobenzene	70-130	70-130
(DCB) = d4-1,2-Dichlorobenzene	70-130	70-130

Prep Method: SW5030B  
 Log Number Range: 09-3401 to 09-3405

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021209

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021209

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3401

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 02/18/09

Date Received: NA

Instrument/Analyst LCS: NT5/JZ

Sample Amount LCS: 10.0 mL

LCSD: NT5/JZ

LCSD: 10.0 mL

Date Analyzed LCS: 02/12/09 19:04

Purge Volume LCS: 10.0 mL

LCSD: 02/12/09 19:31

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	18.1	20.0	90.5%	17.7	20.0	88.5%	2.2%
Bromomethane	24.1	20.0	120%	22.0	20.0	110%	9.1%
Vinyl Chloride	19.6	20.0	98.0%	19.8	20.0	99.0%	1.0%
Chloroethane	17.8	20.0	89.0%	18.7	20.0	93.5%	4.9%
Methylene Chloride	20.4	20.0	102%	14.7	20.0	73.5%	32.5%
Acetone	97.6	100	97.6%	99.2	100	99.2%	1.6%
Carbon Disulfide	19.8	20.0	99.0%	21.5	20.0	108%	8.2%
1,1-Dichloroethene	19.0	20.0	95.0%	19.4	20.0	97.0%	2.1%
1,1-Dichloroethane	19.5	20.0	97.5%	19.6	20.0	98.0%	0.5%
trans-1,2-Dichloroethene	19.1	20.0	95.5%	19.5	20.0	97.5%	2.1%
cis-1,2-Dichloroethene	19.6	20.0	98.0%	19.8	20.0	99.0%	1.0%
Chloroform	19.3	20.0	96.5%	19.5	20.0	97.5%	1.0%
1,2-Dichloroethane	19.9	20.0	99.5%	20.3	20.0	102%	2.0%
2-Butanone	96.2	100	96.2%	98.8	100	98.8%	2.7%
1,1,1-Trichloroethane	19.4	20.0	97.0%	19.7	20.0	98.5%	1.5%
Carbon Tetrachloride	19.8	20.0	99.0%	20.5	20.0	102%	3.5%
Vinyl Acetate	20.2	20.0	101%	20.0	20.0	100%	1.0%
Bromodichloromethane	19.9	20.0	99.5%	19.8	20.0	99.0%	0.5%
1,2-Dichloropropane	19.7	20.0	98.5%	20.0	20.0	100%	1.5%
cis-1,3-Dichloropropene	20.2	20.0	101%	20.2	20.0	101%	0.0%
Trichloroethene	19.9	20.0	99.5%	20.3	20.0	102%	2.0%
Dibromochloromethane	20.6	20.0	103%	20.5	20.0	102%	0.5%
1,1,2-Trichloroethane	19.9	20.0	99.5%	19.9	20.0	99.5%	0.0%
Benzene	19.9	20.0	99.5%	20.2	20.0	101%	1.5%
trans-1,3-Dichloropropene	20.2	20.0	101%	20.6	20.0	103%	2.0%
2-Chloroethylvinylether	20.8	20.0	104%	21.2	20.0	106%	1.9%
Bromoform	20.3	20.0	102%	20.4	20.0	102%	0.5%
4-Methyl-2-Pentanone (MIBK)	101	100	101%	104	100	104%	2.9%
2-Hexanone	102	100	102%	105	100	105%	2.9%
Tetrachloroethene	19.6	20.0	98.0%	19.8	20.0	99.0%	1.0%
1,1,2,2-Tetrachloroethane	19.6	20.0	98.0%	19.4	20.0	97.0%	1.0%
Toluene	20.1	20.0	100%	20.4	20.0	102%	1.5%
Chlorobenzene	20.8	20.0	104%	20.7	20.0	104%	0.5%
Ethylbenzene	22.2	20.0	111%	22.3	20.0	112%	0.4%
Styrene	21.2	20.0	106%	21.2	20.0	106%	0.0%
Trichlorofluoromethane	19.0	20.0	95.0%	20.7	20.0	104%	8.6%
1,1,2-Trichloro-1,2,2-trifluoroethane	20.1	20.0	100%	19.8	20.0	99.0%	1.5%
m,p-Xylene	41.2	40.0	103%	41.2	40.0	103%	0.0%
o-Xylene	20.6	20.0	103%	21.0	20.0	105%	1.9%
1,2-Dichlorobenzene	20.6	20.0	103%	20.1	20.0	100%	2.5%
1,3-Dichlorobenzene	20.6	20.0	103%	20.3	20.0	102%	1.5%
1,4-Dichlorobenzene	20.6	20.0	103%	20.2	20.0	101%	2.0%
Acrolein	106	100	106%	108	100	108%	1.9%
Methyl Iodide	26.0	20.0	130%	25.4	20.0	127%	2.3%
Bromoethane	17.4	20.0	87.0%	17.9	20.0	89.5%	2.8%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021209

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-021209

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3401

Project: BOEING ISAACSON

Matrix: Water

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	19.4	20.0	97.0%	20.2	20.0	101%	4.0%
1,1-Dichloropropene	20.1	20.0	100%	20.5	20.0	102%	2.0%
Dibromomethane	19.6	20.0	98.0%	20.0	20.0	100%	2.0%
1,1,1,2-Tetrachloroethane	20.6	20.0	103%	20.4	20.0	102%	1.0%
1,2-Dibromo-3-chloropropane	18.8	20.0	94.0%	18.7	20.0	93.5%	0.5%
1,2,3-Trichloropropane	19.8	20.0	99.0%	19.7	20.0	98.5%	0.5%
trans-1,4-Dichloro-2-butene	19.0	20.0	95.0%	19.2	20.0	96.0%	1.0%
1,3,5-Trimethylbenzene	20.6	20.0	103%	20.5	20.0	102%	0.5%
1,2,4-Trimethylbenzene	20.6	20.0	103%	20.4	20.0	102%	1.0%
Hexachlorobutadiene	22.2	20.0	111%	20.8	20.0	104%	6.5%
Ethylene Dibromide	20.4	20.0	102%	20.8	20.0	104%	1.9%
Bromochloromethane	19.0	20.0	95.0%	19.9	20.0	99.5%	4.6%
2,2-Dichloropropane	18.6	20.0	93.0%	18.7	20.0	93.5%	0.5%
1,3-Dichloropropane	20.1	20.0	100%	20.2	20.0	101%	0.5%
Isopropylbenzene	20.4	20.0	102%	20.4	20.0	102%	0.0%
n-Propylbenzene	20.4	20.0	102%	20.4	20.0	102%	0.0%
Bromobenzene	20.8	20.0	104%	20.4	20.0	102%	1.9%
2-Chlorotoluene	20.5	20.0	102%	20.3	20.0	102%	1.0%
4-Chlorotoluene	20.4	20.0	102%	20.1	20.0	100%	1.5%
tert-Butylbenzene	20.5	20.0	102%	20.4	20.0	102%	0.5%
sec-Butylbenzene	20.7	20.0	104%	20.6	20.0	103%	0.5%
4-Isopropyltoluene	20.7	20.0	104%	20.5	20.0	102%	1.0%
n-Butylbenzene	20.8	20.0	104%	20.6	20.0	103%	1.0%
1,2,4-Trichlorobenzene	21.5	20.0	108%	20.7	20.0	104%	3.8%
Naphthalene	21.6	20.0	108%	21.0	20.0	105%	2.8%
1,2,3-Trichlorobenzene	21.6	20.0	108%	20.6	20.0	103%	4.7%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	97.3%	97.3%
d8-Toluene	100%	99.7%
Bromofluorobenzene	101%	100%
d4-1,2-Dichlorobenzene	102%	99.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021309

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-021309

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3403

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: NA

Reported: 02/18/09

Date Received: NA

Instrument/Analyst LCS: NT5/JZ

Sample Amount LCS: 10.0 mL

LCSD: NT5/JZ

LCSD: 10.0 mL

Date Analyzed LCS: 02/13/09 11:05

Purge Volume LCS: 10.0 mL

LCSD: 02/13/09 11:35

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	18.2	20.0	91.0%	18.6	20.0	93.0%	2.2%
Bromomethane	21.7	20.0	108%	22.6	20.0	113%	4.1%
Vinyl Chloride	19.2	20.0	96.0%	19.8	20.0	99.0%	3.1%
Chloroethane	18.6	20.0	93.0%	19.4	20.0	97.0%	4.2%
Methylene Chloride	20.6	20.0	103%	20.9	20.0	104%	1.4%
Acetone	108	100	108%	103	100	103%	4.7%
Carbon Disulfide	16.7	20.0	83.5%	21.9	20.0	110%	26.9%
1,1-Dichloroethene	18.9	20.0	94.5%	19.6	20.0	98.0%	3.6%
1,1-Dichloroethane	19.1	20.0	95.5%	19.7	20.0	98.5%	3.1%
trans-1,2-Dichloroethene	18.8	20.0	94.0%	19.5	20.0	97.5%	3.7%
cis-1,2-Dichloroethene	19.1	20.0	95.5%	19.9	20.0	99.5%	4.1%
Chloroform	18.9	20.0	94.5%	19.4	20.0	97.0%	2.6%
1,2-Dichloroethane	19.3	20.0	96.5%	19.8	20.0	99.0%	2.6%
2-Butanone	109	100	109%	104	100	104%	4.7%
1,1,1-Trichloroethane	18.7	20.0	93.5%	19.4	20.0	97.0%	3.7%
Carbon Tetrachloride	19.1	20.0	95.5%	19.5	20.0	97.5%	2.1%
Vinyl Acetate	21.3	20.0	106%	21.2	20.0	106%	0.5%
Bromodichloromethane	19.2	20.0	96.0%	19.5	20.0	97.5%	1.6%
1,2-Dichloropropane	19.4	20.0	97.0%	19.8	20.0	99.0%	2.0%
cis-1,3-Dichloropropene	19.9	20.0	99.5%	20.2	20.0	101%	1.5%
Trichloroethene	19.2	20.0	96.0%	19.8	20.0	99.0%	3.1%
Dibromochloromethane	20.0	20.0	100%	20.1	20.0	100%	0.5%
1,1,2-Trichloroethane	19.7	20.0	98.5%	19.7	20.0	98.5%	0.0%
Benzene	19.2	20.0	96.0%	19.9	20.0	99.5%	3.6%
trans-1,3-Dichloropropene	19.9	20.0	99.5%	20.0	20.0	100%	0.5%
2-Chloroethylvinylether	22.1	20.0	110%	22.3	20.0	112%	0.9%
Bromoform	19.9	20.0	99.5%	19.6	20.0	98.0%	1.5%
4-Methyl-2-Pentanone (MIBK)	113	100	113%	110	100	110%	2.7%
2-Hexanone	116	100	116%	109	100	109%	6.2%
Tetrachloroethene	18.7	20.0	93.5%	19.1	20.0	95.5%	2.1%
1,1,2,2-Tetrachloroethane	20.3	20.0	102%	19.6	20.0	98.0%	3.5%
Toluene	19.3	20.0	96.5%	20.0	20.0	100%	3.6%
Chlorobenzene	19.8	20.0	99.0%	20.2	20.0	101%	2.0%
Ethylbenzene	20.2	20.0	101%	21.8	20.0	109%	7.6%
Styrene	20.3	20.0	102%	20.7	20.0	104%	2.0%
Trichlorofluoromethane	18.9	20.0	94.5%	21.0	20.0	105%	10.5%
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0	100%	20.4	20.0	102%	2.0%
m,p-Xylene	39.4	40.0	98.5%	40.3	40.0	101%	2.3%
o-Xylene	20.0	20.0	100%	20.5	20.0	102%	2.5%
1,2-Dichlorobenzene	19.7	20.0	98.5%	19.9	20.0	99.5%	1.0%
1,3-Dichlorobenzene	19.7	20.0	98.5%	19.9	20.0	99.5%	1.0%
1,4-Dichlorobenzene	19.8	20.0	99.0%	19.9	20.0	99.5%	0.5%
Acrolein	120	100	120%	119	100	119%	0.8%
Methyl Iodide	20.5	20.0	102%	24.3	20.0	122%	17.0%
Bromoethane	15.3	20.0	76.5%	20.4	20.0	102%	28.6%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021309

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021309

QC Report No: OL03-The Boeing Company

LIMS ID: 09-3403

Project: BOEING ISAACSON

Matrix: Water

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	22.0	20.0	110%	21.2	20.0	106%	3.7%
1,1-Dichloropropane	19.4	20.0	97.0%	19.9	20.0	99.5%	2.5%
Dibromomethane	19.7	20.0	98.5%	19.6	20.0	98.0%	0.5%
1,1,1,2-Tetrachloroethane	19.5	20.0	97.5%	19.6	20.0	98.0%	0.5%
1,2-Dibromo-3-chloropropane	19.8	20.0	99.0%	18.4	20.0	92.0%	7.3%
1,2,3-Trichloropropane	20.0	20.0	100%	19.8	20.0	99.0%	1.0%
trans-1,4-Dichloro-2-butene	20.6	20.0	103%	20.1	20.0	100%	2.5%
1,3,5-Trimethylbenzene	19.7	20.0	98.5%	20.0	20.0	100%	1.5%
1,2,4-Trimethylbenzene	19.7	20.0	98.5%	20.1	20.0	100%	2.0%
Hexachlorobutadiene	20.6	20.0	103%	19.9	20.0	99.5%	3.5%
Ethylene Dibromide	20.3	20.0	102%	20.4	20.0	102%	0.5%
Bromochloromethane	18.3	20.0	91.5%	19.8	20.0	99.0%	7.9%
2,2-Dichloropropane	19.0	20.0	95.0%	19.3	20.0	96.5%	1.6%
1,3-Dichloropropane	20.2	20.0	101%	20.2	20.0	101%	0.0%
Isopropylbenzene	19.5	20.0	97.5%	19.9	20.0	99.5%	2.0%
n-Propylbenzene	19.7	20.0	98.5%	20.0	20.0	100%	1.5%
Bromobenzene	20.0	20.0	100%	20.0	20.0	100%	0.0%
2-Chlorotoluene	19.6	20.0	98.0%	20.0	20.0	100%	2.0%
4-Chlorotoluene	19.5	20.0	97.5%	19.7	20.0	98.5%	1.0%
tert-Butylbenzene	19.6	20.0	98.0%	19.8	20.0	99.0%	1.0%
sec-Butylbenzene	20.0	20.0	100%	20.1	20.0	100%	0.5%
4-Isopropyltoluene	20.0	20.0	100%	20.2	20.0	101%	1.0%
n-Butylbenzene	20.5	20.0	102%	20.6	20.0	103%	0.5%
1,2,4-Trichlorobenzene	20.4	20.0	102%	20.3	20.0	102%	0.5%
Naphthalene	21.5	20.0	108%	20.8	20.0	104%	3.3%
1,2,3-Trichlorobenzene	20.7	20.0	104%	20.4	20.0	102%	1.5%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	99.5%	99.8%
d8-Toluene	100%	100%
Bromofluorobenzene	100%	101%
d4-1,2-Dichlorobenzene	101%	101%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 1 of 1

Matrix: Water

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Data Release Authorized: 

Reported: 02/09/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-020509 09-3401	Method Blank	02/05/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	83.5%
OL03K 09-3401	IDP-8-GW-090203 HC ID: ---	02/05/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	93.6%
OL03L 09-3402	IDP-9-GW-090203 HC ID: ---	02/05/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	82.9%
OL03M 09-3403	IDP-12-GW-090203 HC ID: ---	02/05/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	81.4%
OL03N 09-3404	IDP-14-GW-090203 HC ID: ---	02/05/09	02/06/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	86.7%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-020509	83.5%	0
LCS-020509	114%*	1
LCSD-020509	86.8%	0
IDP-8-GW-090203	93.6%	0
IDP-9-GW-090203	82.9%	0
IDP-12-GW-090203	81.4%	0
IDP-14-GW-090203	86.7%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 09-3401 to 09-3404

ORGANICS ANALYSIS DATA SHEET  
NWTPH-HCID Method by GC/FID  
Page 1 of 1

Sample ID: LCS-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/09/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 500 mL

Date Analyzed LCS: 02/06/09 14:52  
LCSD: 02/06/09 15:10

Final Extract Volume LCS: 1.0 mL  
LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS  
LCSD: FID/MS

Dilution Factor LCS: 1.00  
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.35	3.00	78.3%	2.37	3.00	79.0%	0.8%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	114%	86.8%

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

TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water  
Date Received: 02/03/09

ARI Job: OL03  
Project: BOEING ISAACSON  
025173.090

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
09-3401-020509MB	Method Blank	500 mL	1.00 mL	02/05/09
09-3401-020509LCS	Lab Control	500 mL	1.00 mL	02/05/09
09-3401-020509LCSD	Lab Control Dup	500 mL	1.00 mL	02/05/09
09-3401-OL03K	IDP-8-GW-090203	500 mL	1.00 mL	02/05/09
09-3402-OL03L	IDP-9-GW-090203	500 mL	1.00 mL	02/05/09
09-3403-OL03M	IDP-12-GW-090203	500 mL	1.00 mL	02/05/09
09-3404-OL03N	IDP-14-GW-090203	500 mL	1.00 mL	02/05/09

**ORGANICS ANALYSIS DATA SHEET**  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 2  
 Matrix: Soil

QC Report No: OL03-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090

Data Release Authorized:   
 Reported: 02/06/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-020409 09-3391	Method Blank	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 97.4%
OL03A 09-3391	IDP-7-3-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 95.9%
OL03ADP 09-3391	IDP-7-3-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 96.2%
OL03B 09-3392	IDP-8-3-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 96.7%
OL03C 09-3393	IDP-9-3-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 99.5%
OL03D 09-3394	IDP-10-2-090203 HC ID: <b>MOTOR OIL</b>	02/04/09	02/06/09	1.0	Gas Diesel <b>Oil</b> o-Terphenyl	< 20 U < 50 U <b>&gt; 100</b> 98.0%
OL03E 09-3395	IDP-11-11-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 98.2%
OL03F 09-3396	IDP-12-12-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 99.0%
OL03G 09-3397	IDP-13-12-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 95.9%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 2 of 2

Matrix: Soil

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Data Release Authorized: 

Reported: 02/06/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
OL03H 09-3398	IDP-14-11-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 95.9%
OL03I 09-3399	IDP-15-12-090203 HC ID: ---	02/04/09	02/06/09	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 97.5%

Reported in mg/kg (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>O-TER TOT OUT</u>	
020409MB	97.4%	0
IDP-7-3-090203	95.9%	0
IDP-7-3-090203 DP	96.2%	0
IDP-8-3-090203	96.7%	0
IDP-9-3-090203	99.5%	0
IDP-10-2-090203	98.0%	0
IDP-11-11-090203	98.2%	0
IDP-12-12-090203	99.0%	0
IDP-13-12-090203	95.9%	0
IDP-14-11-090203	95.9%	0
IDP-15-12-090203	97.5%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(68-122)

(50-150)

Prep Method: SW3550B  
Log Number Range: 09-3391 to 09-3399

TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil  
Date Received: 02/03/09

ARI Job: OL03  
Project: BOEING ISAACSON  
025173.090

ARI ID	Client ID	Sample Amt	Final Vol	Basis	Prep Date
09-3391-020409MB	Method Blank	10.0 g	5.00 mL	-	02/04/09
09-3391-OL03A	IDP-7-3-090203	9.05 g	5.00 mL	D	02/04/09
09-3391-OL03ADP	IDP-7-3-090203	8.97 g	5.00 mL	D	02/04/09
09-3392-OL03B	IDP-8-3-090203	8.67 g	5.00 mL	D	02/04/09
09-3393-OL03C	IDP-9-3-090203	8.67 g	5.00 mL	D	02/04/09
09-3394-OL03D	IDP-10-2-090203	8.76 g	5.00 mL	D	02/04/09
09-3395-OL03E	IDP-11-11-090203	8.04 g	5.00 mL	D	02/04/09
09-3396-OL03F	IDP-12-12-090203	7.66 g	5.00 mL	D	02/04/09
09-3397-OL03G	IDP-13-12-090203	7.30 g	5.00 mL	D	02/04/09
09-3398-OL03H	IDP-14-11-090203	7.44 g	5.00 mL	D	02/04/09
09-3399-OL03I	IDP-15-12-090203	7.15 g	5.00 mL	D	02/04/09

**ORGANICS ANALYSIS DATA SHEET**

**TOTAL DIESEL RANGE HYDROCARBONS**

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Matrix: Soil

QC Report No: OL61-The Boeing Company

Project: BOEING ISAACSON

025173.090

Data Release Authorized:

Reported: 02/10/09



ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-020909	Method Blank	02/09/09	02/09/09	1.00	Diesel	5.0	< 5.0 U
09-3774	HC ID: ---		FID3A	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		78.7%
OL61A	IDP-10-2-090203	02/09/09	02/10/09	1.00	Diesel	5.5	20
09-3774	HC ID: DRO/MOTOR OIL		FID3A	1.0	Motor Oil	11	150
					o-Terphenyl		70.4%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.

DL-Dilution of extract prior to analysis.

RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.

Motor Oil quantitation on total peaks in the range from C24 to C38.

HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: OL61-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-020909	78.7%	0
LCS-020909	81.8%	0
LCSD-020909	78.2%	0
IDP-10-2-090203	70.4%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(62-118)	(49-125)

Prep Method: SW3546  
Log Number Range: 09-3774 to 09-3774

ORGANICS ANALYSIS DATA SHEET  
 NWTPHD by GC/FID-Silica and Acid Cleaned  
 Page 1 of 1

Sample ID: LCS-020909  
 LCS/LCSD

Lab Sample ID: LCS-020909  
 LIMS ID: 09-3774  
 Matrix: Soil  
 Data Release Authorized: *[Signature]*  
 Reported: 02/10/09

QC Report No: OL61-The Boeing Company  
 Project: BOEING ISAACSON  
 025173.090  
 Date Sampled: 02/03/09  
 Date Received: 02/06/09

Date Extracted LCS/LCSD: 02/09/09  
 Date Analyzed LCS: 02/09/09 21:42  
 LCSD: 02/09/09 22:00  
 Instrument/Analyst LCS: FID/MS  
 LCSD: FID/MS

Sample Amount LCS: 10.0 g  
 LCSD: 10.0 g  
 Final Extract Volume LCS: 1.0 mL  
 LCSD: 1.0 mL  
 Dilution Factor LCS: 1.0  
 LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	115	150	76.7%	110	150	73.3%	4.4%

**TPHD Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	81.8%	78.2%

Results reported in mg/kg  
 RPD calculated using sample concentrations per SW846.

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil  
Date Received: 02/06/09

ARI Job: OL61  
Project: BOEING ISAACSON  
025173.090

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
09-3774-020909MB1	Method Blank	10.0 g	1.00 mL	-	02/09/09
09-3774-020909LCS1	Lab Control	10.0 g	1.00 mL	-	02/09/09
09-3774-020909LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	02/09/09
09-3774-OL61A	IDP-10-2-090203	9.15 g	1.00 mL	D	02/09/09

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: IDP-8-GW-090203

SAMPLE

Lab Sample ID: OL03K

LIMS ID: 09-3401

Matrix: Water

Data Release Authorized: *MMW*

Reported: 02/12/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 13:22

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene	58.7%
d14-Dibenzo(a,h)anthracene	36.3%

ORGANICS ANALYSIS DATA SHEET

PNA<sub>s</sub> by SW8270D-SIM GC/MS

Page 1 of 1



Sample ID: IDP-9-GW-090203

SAMPLE

Lab Sample ID: OL03L

LIMS ID: 09-3402

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/12/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 13:45

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	58.3%
d14-Dibenzo (a,h) anthracene	77.0%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: IDP-12-GW-090203

**SAMPLE**

Lab Sample ID: OL03M

LIMS ID: 09-3403

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/12/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 14:07

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 56.7%  
d14-Dibenzo(a,h)anthracene 85.0%

ORGANICS ANALYSIS DATA SHEET  
 PNAs by SW8270D-SIM GC/MS  
 Page 1 of 1

Sample ID: IDP-14-GW-090203  
 SAMPLE

Lab Sample ID: OL03N  
 LIMS ID: 09-3404  
 Matrix: Water  
 Data Release Authorized: *mm*  
 Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
 Project: BOEING ISAACSON  
 Event: 025173.090  
 Date Sampled: 02/03/09  
 Date Received: 02/03/09

Date Extracted: 02/09/09  
 Date Analyzed: 02/11/09 14:30  
 Instrument/Analyst: NT1/PK

Sample Amount: 500 mL  
 Final Extract Volume: 0.5 mL  
 Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene	55.3%
d14-Dibenzo(a,h)anthracene	47.0%



ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-020909

METHOD BLANK

Lab Sample ID: MB-020909

LIMS ID: 09-3401

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/12/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 12:14

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenzo(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 63.3%  
d14-Dibenzo(a,h)anthracene 80.0%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-020909	63.3%	80.0%	0
LCS-020909	63.7%	81.3%	0
LCSD-020909	58.7%	79.7%	0
IDP-8-GW-090203	58.7%	36.3%	0
IDP-9-GW-090203	58.3%	77.0%	0
IDP-12-GW-090203	56.7%	85.0%	0
IDP-14-GW-090203	55.3%	47.0%	0

**LCS/MB LIMITS      QC LIMITS**

(MNP) = d10-2-Methylnaphthalene      (49-113)      (44-112)  
(DBA) = d14-Dibenzo (a, h) anthracene      (49-132)      (10-138)

Prep Method: SW3520C  
Log Number Range: 09-3401 to 09-3404



ORGANICS ANALYSIS DATA SHEET  
 PNAs by SW8270D-SIM GC/MS  
 Page 1 of 1

Sample ID: LCS-020909  
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-020909  
 LIMS ID: 09-3401  
 Matrix: Water  
 Data Release Authorized: *mw*  
 Reported: 02/12/09

QC Report No: OL03-The Boeing Company  
 Project: BOEING ISAACSON  
 Event: 025173.090  
 Date Sampled: NA  
 Date Received: NA

Date Extracted LCS/LCSD: 02/09/09  
 Date Analyzed LCS: 02/11/09 12:37  
 LCSD: 02/11/09 12:59  
 Instrument/Analyst LCS: NT1/PK  
 LCSD: NT1/PK

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

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzo (a) anthracene	2.27	3.00	75.7%	2.38	3.00	79.3%	4.7%
Chrysene	2.43	3.00	81.0%	2.45	3.00	81.7%	0.8%
Benzo (b) fluoranthene	2.53	3.00	84.3%	2.41	3.00	80.3%	4.9%
Benzo (k) fluoranthene	2.94	3.00	98.0%	3.04	3.00	101%	3.3%
Benzo (a) pyrene	2.57	3.00	85.7%	2.49	3.00	83.0%	3.2%
Indeno (1,2,3-cd) pyrene	2.41	3.00	80.3%	2.47	3.00	82.3%	2.5%
Dibenz (a,h) anthracene	2.52	3.00	84.0%	2.50	3.00	83.3%	0.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	63.7%	58.7%
d14-Dibenzo (a,h) anthracene	81.3%	79.7%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
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Sample ID: IDP-8-GW-090203  
SAMPLE

Lab Sample ID: OL03K  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized:   
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/05/09  
Date Analyzed: 02/09/09 17:53  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: Yes  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	74.2%
Tetrachlorometaxylene	48.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-9-GW-090203  
SAMPLE

Lab Sample ID: OL03L  
LIMS ID: 09-3402  
Matrix: Water  
Data Release Authorized:   
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/05/09  
Date Analyzed: 02/09/09 18:11  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: Yes  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	51.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-12-GW-090203  
SAMPLE

Lab Sample ID: OL03M  
LIMS ID: 09-3403  
Matrix: Water  
Data Release Authorized:   
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/05/09  
Date Analyzed: 02/09/09 18:28  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: Yes  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	82.2%
Tetrachlorometaxylene	56.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-14-GW-090203  
SAMPLE

Lab Sample ID: OL03N  
LIMS ID: 09-3404  
Matrix: Water  
Data Release Authorized:   
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/05/09  
Date Analyzed: 02/09/09 18:45  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: Yes  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	76.5%
Tetrachlorometaxylene	52.2%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: MB-020509  
METHOD BLANK

Lab Sample ID: MB-020509  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized:   
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/05/09  
Date Analyzed: 02/09/09 17:02  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: Yes  
Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	86.8%
Tetrachlorometaxylene	53.2%

**SW8082/PCB WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-020509	86.8%	30-160	53.2%	30-160	0
LCS-020509	87.0%	30-160	53.2%	30-160	0
LCSD-020509	88.8%	30-160	63.5%	30-160	0
IDP-8-GW-090203	74.2%	30-160	48.8%	30-160	0
IDP-9-GW-090203	88.5%	30-160	51.0%	30-160	0
IDP-12-GW-090203	82.2%	30-160	56.8%	30-160	0
IDP-14-GW-090203	76.5%	30-160	52.2%	30-160	0

Prep Method: SW3510C  
Log Number Range: 09-3401 to 09-3404

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-020509  
LCS/LCSD

Lab Sample ID: LCS-020509  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted LCS/LCSD: 02/05/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/09/09 17:19  
LCSD: 02/09/09 17:36

Final Extract Volume LCS: 5.0 mL  
LCSD: 5.0 mL

Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: No  
Sulfur Cleanup: Yes

Silica Gel: Yes  
Acid Cleanup: Yes

Analyte	LCS		LCS		LCSD		RPD
	Concentration	Spike Added	Recovery	Concentration	Spike Added	Recovery	
Aroclor 1016	3.88	5.00	77.6%	3.91	5.00	78.2%	0.8%
Aroclor 1260	4.56	5.00	91.2%	4.55	5.00	91.0%	0.2%

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	87.0%	88.8%
Tetrachlorometaxylene	53.2%	63.5%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-8-3-090203  
SAMPLE

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized: *B*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 12:23  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 13.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	80.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-8-3-090203  
MATRIX SPIKE

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized: *B*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 12:40  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 13.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	---
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	---
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.2%
Tetrachlorometaxylene	81.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-8-3-090203  
MATRIX SPIKE DUP

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 12:58  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.1 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 13.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	---
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	---
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	89.8%
Tetrachlorometaxylene	85.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-9-3-090203  
SAMPLE

Lab Sample ID: OL03C  
LIMS ID: 09-3393  
Matrix: Soil  
Data Release Authorized: *AB*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 13:15  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.3 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 13.8%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	82.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-12-12-090203  
SAMPLE

Lab Sample ID: OL03F  
LIMS ID: 09-3396  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 13:32  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 24.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	89.0%
Tetrachlorometaxylene	80.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-14-11-090203  
SAMPLE

Lab Sample ID: OL03H  
LIMS ID: 09-3398  
Matrix: Soil  
Data Release Authorized:   
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 13:49  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisol Cleanup: No

Sample Amount: 13.0 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 25.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	93.0%
Tetrachlorometaxylene	90.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-6A-3-090203  
SAMPLE

Lab Sample ID: OL03J  
LIMS ID: 09-3400  
Matrix: Soil  
Data Release Authorized: *AB*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 15:32  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 13.0 g-dry-wt  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: 17.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	89.2%
Tetrachlorometaxylene	81.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized: *B*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/06/09  
Date Analyzed: 02/07/09 11:32  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Sample Amount: 12.0 g  
Final Extract Volume: 4.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Percent Moisture: NA

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U

Reported in  $\mu\text{g}/\text{kg}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	97.5%
Tetrachlorometaxylene	84.2%

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-020609	97.5%	30-160	84.2%	30-160	0
LCS-020609	97.2%	30-160	88.0%	30-160	0
LCSD-020609	99.5%	30-160	91.0%	30-160	0
IDP-8-3-090203	87.5%	30-160	80.0%	30-160	0
IDP-8-3-090203 MS	88.2%	30-160	81.5%	30-160	0
IDP-8-3-090203 MSD	89.8%	30-160	85.5%	30-160	0
IDP-9-3-090203	87.5%	30-160	82.0%	30-160	0
IDP-12-12-090203	89.0%	30-160	80.0%	30-160	0
IDP-14-11-090203	93.0%	30-160	90.5%	30-160	0
IDP-6A-3-090203	89.2%	30-160	81.5%	30-160	0

Microwave (MARS) Control Limits  
Prep Method: SW3546  
Log Number Range: 09-3392 to 09-3400

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized: *AS*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted LCS/LCSD: 02/06/09  
Date Analyzed LCS: 02/07/09 11:49  
LCSD: 02/07/09 12:06  
Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR

Sample Amount LCS: 12.0 g-dry-wt  
LCSD: 12.0 g-dry-wt  
Final Extract Volume LCS: 4.0 mL  
LCSD: 4.0 mL  
Dilution Factor LCS: 1.00  
LCSD: 1.00  
Silica Gel: No  
Percent Moisture: NA

GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	LCSD		
Aroclor 1016	154	167	92.4%	158	167	94.8%	2.6%		
Aroclor 1260	175	167	105%	180	167	108%	2.8%		

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	97.2%	99.5%
Tetrachlorometaxylene	88.0%	91.0%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)  
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: IDP-8-3-090203  
MS/MSD

Lab Sample ID: OL03B  
LIMS ID: 09-3392  
Matrix: Soil  
Data Release Authorized: *[Signature]*  
Reported: 02/11/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

Date Extracted MS/MSD: 02/06/09  
Date Analyzed MS: 02/07/09 12:40  
MSD: 02/07/09 12:58  
Instrument/Analyst MS: ECD5/JGR  
MSD: ECD5/JGR

Sample Amount MS: 12.5 g-dry-wt  
MSD: 12.1 g-dry-wt  
Final Extract Volume MS: 4.0 mL  
MSD: 4.0 mL  
Dilution Factor MS: 1.00  
MSD: 1.00  
Silica Gel: No  
Percent Moisture: 13.5%

GPC Cleanup: No  
Sulfur Cleanup: Yes  
Acid Cleanup: Yes  
Florisil Cleanup: No

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 32.1 U	137	161	85.1%	145	165	87.9%	5.7%
Aroclor 1260	< 32.1 U	150	161	93.2%	160	165	97.0%	6.5%

Results reported in  $\mu\text{g}/\text{kg}$  (ppb)  
RPD calculated using sample concentrations per SW846.

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-7-3-090203

SAMPLE

Lab Sample ID: OL03A

LIMS ID: 09-3391

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 89.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/18/09	7440-38-2	Arsenic	50	50	U
3050B	02/11/09	6010B	02/18/09	7440-43-9	Cadmium	2	4	
3050B	02/11/09	6010B	02/18/09	7440-47-3	Chromium	5	262	
3050B	02/11/09	6010B	02/18/09	7440-50-8	Copper	2	177	
3050B	02/11/09	6010B	02/18/09	7439-92-1	Lead	20	420	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.04	0.52	
3050B	02/11/09	6010B	02/18/09	7440-66-6	Zinc	10	1,390	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: IDP-7-3-090203

DUPLICATE

Lab Sample ID: OL03A

LIMS ID: 09-3391

Matrix: Soil

Data Release Authorized

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	50 U	50 U	0.0%	+/- 50	L
Cadmium	6010B	4	6	40.0%	+/- 2	L
Chromium	6010B	262	247	5.9%	+/- 20%	
Copper	6010B	177	446	86.4%	+/- 20%	*
Lead	6010B	420	490	15.4%	+/- 20%	
Mercury	7471A	0.52	0.60	14.3%	+/- 20%	
Zinc	6010B	1,390	910	41.7%	+/- 20%	*

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: IDP-7-3-090203

MATRIX SPIKE

Lab Sample ID: OL03A

LIMS ID: 09-3391

Matrix: Soil

Data Release Authorized 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	50 U	210	218	96.3%	
Cadmium	6010B	4	51	54.5	86.2%	
Chromium	6010B	262	278	54.5	29.4%	H
Copper	6010B	177	219	54.5	77.1%	
Lead	6010B	420	620	218	91.7%	
Mercury	7471A	0.52	1.15	0.448	141%	N
Zinc	6010B	1,390	950	54.5	-807%	H

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-8-3-090203

SAMPLE

Lab Sample ID: OL03B

LIMS ID: 09-3392

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 79.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	6	32	
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.2	0.4	
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.6	36.9	
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.2	27.4	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	2	27	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.08	
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	89	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-9-3-090203

SAMPLE

Lab Sample ID: OL03C

LIMS ID: 09-3393

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 89.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/18/09	7440-38-2	Arsenic	10	30	
3050B	02/11/09	6010B	02/18/09	7440-43-9	Cadmium	0.5	0.6	
3050B	02/11/09	6010B	02/18/09	7440-47-3	Chromium	1	58	
3050B	02/11/09	6010B	02/18/09	7440-50-8	Copper	0.5	93.2	
3050B	02/11/09	6010B	02/18/09	7439-92-1	Lead	5	112	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.04	0.18	
3050B	02/11/09	6010B	02/18/09	7440-66-6	Zinc	3	267	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-10-2-090203

SAMPLE

Lab Sample ID: OL03D

LIMS ID: 09-3394

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 87.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	5	23	
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.2	0.6	
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.5	16.2	
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.2	55.6	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	2	59	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.15	
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	220	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-11-11-090203

**SAMPLE**

Lab Sample ID: OL03E

LIMS ID: 09-3395

Matrix: Soil

Data Release Authorized 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 81.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	6	6	U
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/11/09	6010B	02/17/09	<b>7440-47-3</b>	<b>Chromium</b>	0.6	<b>11.8</b>	
3050B	02/11/09	6010B	02/17/09	<b>7440-50-8</b>	<b>Copper</b>	0.2	<b>13.5</b>	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	2	2	U
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.05	U
3050B	02/11/09	6010B	02/17/09	<b>7440-66-6</b>	<b>Zinc</b>	1	<b>35</b>	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-12-12-090203

SAMPLE

Lab Sample ID: OL03F

LIMS ID: 09-3396

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 74.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	6	204	
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.3	0.3	U
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.6	16.3	
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.3	163	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	3	4	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.06	
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	354	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-13-12-090203

SAMPLE

Lab Sample ID: OL03G

LIMS ID: 09-3397

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 71.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	7	18	
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.3	0.3	U
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.7	23.5	
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.3	131	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	3	4	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.06	0.08	
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	97	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-14-11-090203

SAMPLE

Lab Sample ID: OL03H

LIMS ID: 09-3398

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 75.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	6	220	
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.6	15.4	
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.2	624	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	2	6	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.21	
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	77	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

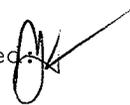
Sample ID: IDP-15-12-090203

SAMPLE

Lab Sample ID: OL03I

LIMS ID: 09-3399

Matrix: Soil

Data Release Authorized 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 72.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	6	274	
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.3	0.3	U
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.6	17.3	
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.3	47.2	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	3	5	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.06	
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	96	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: IDP-6A-3-090203

SAMPLE

Lab Sample ID: OL03J

LIMS ID: 09-3400

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Percent Total Solids: 86.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	6	14	
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.6	52.0	
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.2	20.8	
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	2	27	
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.05	U
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	68	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OL03MB

LIMS ID: 09-3392

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	02/11/09	6010B	02/17/09	7440-38-2	Arsenic	5	5	U
3050B	02/11/09	6010B	02/17/09	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/11/09	6010B	02/17/09	7440-47-3	Chromium	0.5	0.5	U
3050B	02/11/09	6010B	02/17/09	7440-50-8	Copper	0.2	0.2	U
3050B	02/11/09	6010B	02/17/09	7439-92-1	Lead	2	2	U
CLP	02/11/09	7471A	02/20/09	7439-97-6	Mercury	0.05	0.05	U
3050B	02/11/09	6010B	02/17/09	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OL03LCS

LIMS ID: 09-3392

Matrix: Soil

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	208	200	104%	
Cadmium	6010B	51.0	50.0	102%	
Chromium	6010B	47.0	50.0	94.0%	
Copper	6010B	49.9	50.0	99.8%	
Lead	6010B	201	200	100%	
Mercury	7471A	1.10	1.00	110%	
Zinc	6010B	48	50	96.0%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-8-GW-090203  
SAMPLE

Lab Sample ID: OL03K

LIMS ID: 09-3401

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/13/09	7440-38-2	Arsenic	100	13,600	
6010B	02/10/09	6010B	02/16/09	7440-43-9	Cadmium	10	10	U
6010B	02/10/09	6010B	02/16/09	7440-47-3	Chromium	20	20	U
6010B	02/10/09	6010B	02/16/09	7440-50-8	Copper	10	10	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/16/09	7440-66-6	Zinc	50	50	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-8-GW-090203

DUPLICATE

Lab Sample ID: OL03K

LIMS ID: 09-3401

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	13,600	13,800	1.5%	+/- 20%	
Cadmium	6010B	10 U	10 U	0.0%	+/- 10	L
Chromium	6010B	20 U	20 U	0.0%	+/- 20	L
Copper	6010B	10 U	10 U	0.0%	+/- 10	L
Lead	200.8	1	1	0.0%	+/- 1	L
Mercury	7470A	0.1 U	0.1 U	0.0%	+/- 0.1	L
Zinc	6010B	50 U	50 U	0.0%	+/- 50	L

Reported in µg/L

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-8-GW-090203

MATRIX SPIKE

Lab Sample ID: OL03K  
LIMS ID: 09-3401  
Matrix: Water  
Data Release Authorized:   
Reported: 02/23/09

QC Report No: OL03-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/03/09  
Date Received: 02/03/09

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	13,600	14,000	25.0	1600%	H
Cadmium	6010B	10.0 U	2,540	2,500	102%	
Chromium	6010B	25.0 U	2,310	2,500	92.4%	
Copper	6010B	10.0 U	2,560	2,500	102%	
Lead	200.8	1.41	25.4	25.0	96.0%	
Mercury	7470A	0.100 U	1.01	1.00	101%	
Zinc	6010B	50.0 U	2,410	2,500	96.4%	

Reported in µg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-9-GW-090203

SAMPLE

Lab Sample ID: OL03L

LIMS ID: 09-3402

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/12/09	7440-38-2	Arsenic	0.5	0.5	
6010B	02/10/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/13/09	7440-50-8	Copper	2	6	
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-12-GW-090203

SAMPLE

Lab Sample ID: OL03M

LIMS ID: 09-3403

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/11/09	7440-38-2	Arsenic	0.2	13.0	
6010B	02/10/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/13/09	7440-50-8	Copper	2	6	
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/13/09	7440-66-6	Zinc	10	40	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: IDP-14-GW-090203  
SAMPLE

Lab Sample ID: OL03N

LIMS ID: 09-3404

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: 02/03/09

Date Received: 02/03/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/13/09	7440-38-2	Arsenic	100	16,600	
6010B	02/10/09	6010B	02/16/09	7440-43-9	Cadmium	10	10	U
6010B	02/10/09	6010B	02/16/09	7440-47-3	Chromium	20	20	U
6010B	02/10/09	6010B	02/16/09	7440-50-8	Copper	10	20	
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/16/09	7440-66-6	Zinc	50	50	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OL03MB

LIMS ID: 09-3402

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/10/09	200.8	02/12/09	7440-38-2	Arsenic	0.2	0.4	
6010B	02/10/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/10/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/10/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/10/09	200.8	02/11/09	7439-92-1	Lead	1	1	U
7470A	02/10/09	7470A	02/12/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/10/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OL03LCS

LIMS ID: 09-3402

Matrix: Water

Data Release Authorized: 

Reported: 02/23/09

QC Report No: OL03-The Boeing Company

Project: BOEING ISAACSON

025173.090

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	27.3	25.0	109%	
Cadmium	6010B	507	500	101%	
Chromium	6010B	478	500	95.6%	
Copper	6010B	470	500	94.0%	
Lead	200.8	26	25	104%	
Mercury	7470A	2.0	2.0	100%	
Zinc	6010B	490	500	98.0%	

Reported in µg/L

N-Control limit not met

Control Limits: 80-120%



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

February 20, 2009

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Isaacson – Phase II, 025173.090**  
**ARI Job: OL24**

Dear Kathryn:

Enclosed, please find e-mail documentation, the original and revised copy of the Chain-of-Custody (COC) record, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted three water samples and trip blank in good condition on February 4, 2009. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for VOCs, SVOCs, SIM PAHs, PCBs, NWT PH-HCID, and Dissolved Metals, as requested on the COC.

The LCS and LCSD percent recoveries of Acrolein and the LCS percent recoveries of 1,2,3-Trichloropropane, trans-1,4-Dichloro-2-butene, Bromobenzene, and tert-Butylbenzene were outside the control limits high for **LCS-021109** for the VOCs analysis. All samples were undetected for these compounds. No further corrective action was required.

Several LCS and LCSD percent recoveries fell outside the control limits low for **LCS-020609** for the SVOCs analysis. All samples and associated QC were re-extracted and re-analyzed outside the method recommended holding times. All LCS and LCSD percent recoveries were within control limits for **LCS-021209**. Both sets of data have been submitted in this report for your review. No further corrective action was required.

The surrogate percent recoveries of Tetrachlorometaxylene fell outside the control limits low for **LCS-020909** and **LCSD-020909** for the PCBs. The LCS and LCSD percent recoveries were within control limits and all other surrogate percent recoveries were within control limits. No further corrective action was required.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

  
Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

KB/co





# Cooler Receipt Form

ARI Client: Landaw / Boeing Project Name: \_\_\_\_\_  
 COC No: \_\_\_\_\_ Delivered by: Hanel  
 Assigned ARI Job No: 024 Tracking No: \_\_\_\_\_

### Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES  NO
- Were custody papers included with the cooler? ..... YES  NO
- Were custody papers properly filled out (ink, signed, etc.) ..... YES  NO
- Record cooler temperature (recommended 2.0-6.0 °C for chemistry ..... 5.2, 7.6, 4.6 °C

Cooler Accepted by: JH Date: 2/4/09 Time: 1653

**Complete custody forms and attach all shipping documents**

### Log-In Phase:

- Was a temperature blank included in the cooler? ..... YES  NO
- What kind of packing material was used? ..... ice
- Was sufficient ice used (if appropriate)? ..... YES  NO
- Were all bottles sealed in individual plastic bags? ..... YES  NO
- Did all bottle arrive in good condition (unbroken)? ..... YES  NO
- Were all bottle labels complete and legible? ..... YES  NO
- Did all bottle labels and tags agree with custody papers? ..... YES  NO
- Were all bottles used correct for the requested analyses? ..... YES  NO
- Do any of the analyses (bottles) require preservation? (attach preservation checklist) ..... YES  NO
- Were all VOC vials free of air bubbles? ..... NA  NO
- Was sufficient amount of sample sent in each bottle? ..... YES  NO

Samples Logged by: JH Date: 2/5/09 Time: 1030

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

Explain discrepancies or negative responses:

Only 2 trip blanks included  
Sent revised COC.

By: XHS

Date: 2/5/09



**Eric Branson**

---

**From:** "Kelly Bottem" <kellyb@arilabs.com>  
**To:** "Kathryn Hartley" <khartley@landauinc.com>; "Eric Branson" <eric@arilabs.com>  
**Sent:** Monday, February 09, 2009 2:21 PM  
**Subject:** Re: Ol24 sample aka

Got it. Eric please change ASAP.

K

Kathryn Hartley wrote:

> Kelly,

>

>

>

> For data package OL24, please make the following changes:

>

> - Change P2-6-090204 to PZ-6-090204

>

> - Change P2-3-090204 to PZ-3-090204

>

> - Add Phase II to the project name

>

>

>

> Please confirm that you received this message and let me know if  
you

> have any questions.

>

>

>

>

> Thanks,

>

>

>

>

> Kathryn F. Hartley

>

> Project Scientist

>

> Landau Associates

>

> 130 2nd Avenue South

>

> Edmonds, WA 98020

>

> (425) 329-0268

>

>

>

> -----Original Message-----

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: 

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Date Analyzed: 02/10/09 20:04

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	3.9	
75-15-0	Carbon Disulfide	0.2	0.2	
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 20:04

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	117%
d8-Toluene	100%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	101%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: PZ-3-090204

Page 1 of 2

SAMPLE

Lab Sample ID: OL24B

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3552

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/10/09 20:29

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	<b>Acetone</b>	<b>2.5</b>	<b>7.1</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Date Analyzed: 02/10/09 20:29

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	98.7%
Bromofluorobenzene	100%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-200-090204

Page 1 of 2

**SAMPLE**

Lab Sample ID: OL24C

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3553

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/10/09 20:54

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
<b>67-64-1</b>	<b>Acetone</b>	<b>2.5</b>	<b>11</b>	
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: I-200-090204

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SAMPLE

Lab Sample ID: OL24C

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3553

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Date Analyzed: 02/10/09 20:54

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	115%
d8-Toluene	100%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	104%

## ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge &amp; Trap GC/MS-Method SW8260B

Sample ID: TRIP BLANK

Page 1 of 2

SAMPLE

Lab Sample ID: OL24D

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3554

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized: 

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/11/09 13:31

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: TRIP BLANK  
SAMPLE

Lab Sample ID: OL24D  
LIMS ID: 09-3554  
Matrix: Water  
Date Analyzed: 02/11/09 13:31

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	111%
d8-Toluene	99.1%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	101%

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
 Project: Boeing Isaacson Phase II  
 025173.090

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-021009	Method Blank	10	98.3%	99.5%	97.8%	99.9%	0
LCS-021009	Lab Control	10	99.8%	98.7%	99.6%	102%	0
LCSD-021009	Lab Control Dup	10	97.5%	99.5%	98.3%	100%	0
OL24A	PZ-6-090204	10	117%	100%	101%	101%	0
OL24B	PZ-3-090204	10	115%	98.7%	100%	102%	0
OL24C	I-200-090204	10	115%	100%	102%	104%	0
MB-021109	Method Blank	10	111%	102%	101%	102%	0
LCS-021109	Lab Control	10	113%	96.0%	93.9%	102%	0
LCSD-021109	Lab Control Dup	10	111%	101%	102%	102%	0
OL24D	TRIP BLANK	10	111%	99.1%	102%	101%	0

LCS/MB LIMITS

QC LIMITS

SW8260B

(DCE) = d4-1,2-Dichloroethane	70-130	70-130
(TOL) = d8-Toluene	70-130	70-130
(BFB) = Bromofluorobenzene	70-130	70-130
(DCB) = d4-1,2-Dichlorobenzene	70-130	70-130

Prep Method: SW5030B  
 Log Number Range: 09-3551 to 09-3554

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021009

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021009

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: NA

Reported: 02/12/09

Date Received: NA

Instrument/Analyst LCS: NT7/PKC

Sample Amount LCS: 10.0 mL

LCSD: NT7/PKC

LCSD: 10.0 mL

Date Analyzed LCS: 02/10/09 12:55

Purge Volume LCS: 10.0 mL

LCSD: 02/10/09 13:20

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	9.0	10.0	90.0%	9.3	10.0	93.0%	3.3%
Bromomethane	10.0	10.0	100%	10.8	10.0	108%	7.7%
Vinyl Chloride	9.7	10.0	97.0%	10.0	10.0	100%	3.0%
Chloroethane	10.7	10.0	107%	11.0	10.0	110%	2.8%
Methylene Chloride	9.8	10.0	98.0%	10.0	10.0	100%	2.0%
Acetone	55.6	50.0	111%	56.0	50.0	112%	0.7%
Carbon Disulfide	9.7	10.0	97.0%	10.0	10.0	100%	3.0%
1,1-Dichloroethene	9.4	10.0	94.0%	10.0	10.0	100%	6.2%
1,1-Dichloroethane	9.6	10.0	96.0%	9.6	10.0	96.0%	0.0%
trans-1,2-Dichloroethene	9.7	10.0	97.0%	9.7	10.0	97.0%	0.0%
cis-1,2-Dichloroethene	9.8	10.0	98.0%	10.1	10.0	101%	3.0%
Chloroform	9.7	10.0	97.0%	9.9	10.0	99.0%	2.0%
1,2-Dichloroethane	9.8	10.0	98.0%	9.8	10.0	98.0%	0.0%
2-Butanone	52.4	50.0	105%	51.1	50.0	102%	2.5%
1,1,1-Trichloroethane	9.6	10.0	96.0%	9.8	10.0	98.0%	2.1%
Carbon Tetrachloride	9.7	10.0	97.0%	10.3	10.0	103%	6.0%
Vinyl Acetate	8.8	10.0	88.0%	8.8	10.0	88.0%	0.0%
Bromodichloromethane	9.9	10.0	99.0%	10.3	10.0	103%	4.0%
1,2-Dichloropropane	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
cis-1,3-Dichloropropene	9.8	10.0	98.0%	10.2	10.0	102%	4.0%
Trichloroethene	9.5	10.0	95.0%	9.9	10.0	99.0%	4.1%
Dibromochloromethane	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
1,1,2-Trichloroethane	9.4	10.0	94.0%	10.0	10.0	100%	6.2%
Benzene	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
trans-1,3-Dichloropropene	10.0	10.0	100%	10.3	10.0	103%	3.0%
2-Chloroethylvinylether	9.9	10.0	99.0%	10.1	10.0	101%	2.0%
Bromoform	10.2	10.0	102%	10.4	10.0	104%	1.9%
4-Methyl-2-Pentanone (MIBK)	52.2	50.0	104%	50.5	50.0	101%	3.3%
2-Hexanone	50.6	50.0	101%	48.9	50.0	97.8%	3.4%
Tetrachloroethene	9.3	10.0	93.0%	10.0	10.0	100%	7.3%
1,1,2,2-Tetrachloroethane	8.7	10.0	87.0%	9.0	10.0	90.0%	3.4%
Toluene	8.9	10.0	89.0%	9.6	10.0	96.0%	7.6%
Chlorobenzene	9.4	10.0	94.0%	9.9	10.0	99.0%	5.2%
Ethylbenzene	9.3	10.0	93.0%	10.1	10.0	101%	8.2%
Styrene	9.7	10.0	97.0%	9.8	10.0	98.0%	1.0%
Trichlorofluoromethane	9.8	10.0	98.0%	9.9	10.0	99.0%	1.0%
1,1,2-Trichloro-1,2,2-trifluoroetha	10.1	10.0	101%	10.4	10.0	104%	2.9%
m,p-Xylene	18.4	20.0	92.0%	19.4	20.0	97.0%	5.3%
o-Xylene	9.1	10.0	91.0%	9.7	10.0	97.0%	6.4%
1,2-Dichlorobenzene	9.3	10.0	93.0%	9.8	10.0	98.0%	5.2%
1,3-Dichlorobenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
1,4-Dichlorobenzene	9.4	10.0	94.0%	9.9	10.0	99.0%	5.2%
Acrolein	61.8	50.0	124%	57.1	50.0	114%	7.9%
Methyl Iodide	11.5	10.0	115%	12.3	10.0	123%	6.7%
Bromoethane	9.5	10.0	95.0%	9.6	10.0	96.0%	1.0%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 2 of 2

Sample ID: LCS-021009

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021009

LIMS ID: 09-3551

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	10.9	10.0	109%	10.7	10.0	107%	1.9%
1,1-Dichloropropene	8.9	10.0	89.0%	9.5	10.0	95.0%	6.5%
Dibromomethane	9.8	10.0	98.0%	10.4	10.0	104%	5.9%
1,1,1,2-Tetrachloroethane	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
1,2-Dibromo-3-chloropropane	8.7	10.0	87.0%	9.3	10.0	93.0%	6.7%
1,2,3-Trichloropropane	9.9	10.0	99.0%	9.8	10.0	98.0%	1.0%
trans-1,4-Dichloro-2-butene	9.1	10.0	91.0%	9.6	10.0	96.0%	5.3%
1,3,5-Trimethylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
1,2,4-Trimethylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
Hexachlorobutadiene	9.3	10.0	93.0%	10.0	10.0	100%	7.3%
Ethylene Dibromide	9.8	10.0	98.0%	10.1	10.0	101%	3.0%
Bromochloromethane	10.0	10.0	100%	10.3	10.0	103%	3.0%
2,2-Dichloropropane	10.0	10.0	100%	10.0	10.0	100%	0.0%
1,3-Dichloropropane	9.7	10.0	97.0%	9.7	10.0	97.0%	0.0%
Isopropylbenzene	9.5	10.0	95.0%	10.2	10.0	102%	7.1%
n-Propylbenzene	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
Bromobenzene	9.6	10.0	96.0%	9.9	10.0	99.0%	3.1%
2-Chlorotoluene	9.5	10.0	95.0%	10.0	10.0	100%	5.1%
4-Chlorotoluene	9.4	10.0	94.0%	9.9	10.0	99.0%	5.2%
tert-Butylbenzene	9.3	10.0	93.0%	9.8	10.0	98.0%	5.2%
sec-Butylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
4-Isopropyltoluene	9.5	10.0	95.0%	10.1	10.0	101%	6.1%
n-Butylbenzene	9.4	10.0	94.0%	9.8	10.0	98.0%	4.2%
1,2,4-Trichlorobenzene	10.3	10.0	103%	10.2	10.0	102%	1.0%
Naphthalene	10.5	10.0	105%	10.2	10.0	102%	2.9%
1,2,3-Trichlorobenzene	10.3	10.0	103%	10.2	10.0	102%	1.0%

Reported in  $\mu\text{g/L}$  (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	99.8%	97.5%
d8-Toluene	98.7%	99.5%
Bromofluorobenzene	99.6%	98.3%
d4-1,2-Dichlorobenzene	102%	100%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021109

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-021109

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3554

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: NA

Reported: 02/12/09

Date Received: NA

Instrument/Analyst LCS: NT7/PKC

Sample Amount LCS: 10.0 mL

LCSD: NT7/PKC

LCSD: 10.0 mL

Date Analyzed LCS: 02/11/09 11:27

Purge Volume LCS: 10.0 mL

LCSD: 02/11/09 11:51

LCSD: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	10.8	10.0	108%	10.4	10.0	104%	3.8%
Bromomethane	9.9	10.0	99.0%	9.3	10.0	93.0%	6.2%
Vinyl Chloride	10.1	10.0	101%	10.1	10.0	101%	0.0%
Chloroethane	11.9	10.0	119%	11.3	10.0	113%	5.2%
Methylene Chloride	10.1	10.0	101%	9.7	10.0	97.0%	4.0%
Acetone	54.5	50.0	109%	56.8	50.0	114%	4.1%
Carbon Disulfide	9.8	10.0	98.0%	9.2	10.0	92.0%	6.3%
1,1-Dichloroethene	9.3	10.0	93.0%	9.2	10.0	92.0%	1.1%
1,1-Dichloroethane	10.5	10.0	105%	9.7	10.0	97.0%	7.9%
trans-1,2-Dichloroethene	9.3	10.0	93.0%	9.3	10.0	93.0%	0.0%
cis-1,2-Dichloroethene	10.0	10.0	100%	9.4	10.0	94.0%	6.2%
Chloroform	10.4	10.0	104%	10.0	10.0	100%	3.9%
1,2-Dichloroethane	11.0	10.0	110%	10.7	10.0	107%	2.8%
2-Butanone	51.0	50.0	102%	50.5	50.0	101%	1.0%
1,1,1-Trichloroethane	10.8	10.0	108%	10.2	10.0	102%	5.7%
Carbon Tetrachloride	11.2	10.0	112%	10.6	10.0	106%	5.5%
Vinyl Acetate	9.4	10.0	94.0%	9.4	10.0	94.0%	0.0%
Bromodichloromethane	11.0	10.0	110%	10.6	10.0	106%	3.7%
1,2-Dichloropropane	10.0	10.0	100%	9.9	10.0	99.0%	1.0%
cis-1,3-Dichloropropene	10.4	10.0	104%	10.0	10.0	100%	3.9%
Trichloroethene	10.1	10.0	101%	9.4	10.0	94.0%	7.2%
Dibromochloromethane	11.2	10.0	112%	9.6	10.0	96.0%	15.4%
1,1,2-Trichloroethane	9.6	10.0	96.0%	9.5	10.0	95.0%	1.0%
Benzene	9.7	10.0	97.0%	9.4	10.0	94.0%	3.1%
trans-1,3-Dichloropropene	10.6	10.0	106%	10.2	10.0	102%	3.8%
2-Chloroethylvinylether	10.0	10.0	100%	10.2	10.0	102%	2.0%
Bromoform	13.2	10.0	132%	10.1	10.0	101%	26.6%
4-Methyl-2-Pentanone (MIBK)	53.4	50.0	107%	54.4	50.0	109%	1.9%
2-Hexanone	55.5	50.0	111%	51.1	50.0	102%	8.3%
Tetrachloroethene	10.5	10.0	105%	8.9	10.0	89.0%	16.5%
1,1,2,2-Tetrachloroethane	11.4	10.0	114%	8.6	10.0	86.0%	28.0%
Toluene	9.3	10.0	93.0%	8.9	10.0	89.0%	4.4%
Chlorobenzene	10.6	10.0	106%	9.1	10.0	91.0%	15.2%
Ethylbenzene	10.7	10.0	107%	9.4	10.0	94.0%	12.9%
Styrene	11.2	10.0	112%	9.5	10.0	95.0%	16.4%
Trichlorofluoromethane	10.8	10.0	108%	10.4	10.0	104%	3.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	10.7	10.0	107%	9.9	10.0	99.0%	7.8%
m,p-Xylene	21.1	20.0	106%	17.7	20.0	88.5%	17.5%
o-Xylene	10.6	10.0	106%	8.9	10.0	89.0%	17.4%
1,2-Dichlorobenzene	12.0	10.0	120%	9.0	10.0	90.0%	28.6%
1,3-Dichlorobenzene	12.0	10.0	120%	9.0	10.0	90.0%	28.6%
1,4-Dichlorobenzene	11.9	10.0	119%	8.8	10.0	88.0%	30.0%
Acrolein	71.5	50.0	143%	72.3	50.0	145%	1.1%
Methyl Iodide	11.5	10.0	115%	10.3	10.0	103%	11.0%
Bromoethane	9.4	10.0	94.0%	8.6	10.0	86.0%	8.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-021109

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-021109

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3554

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	10.5	10.0	105%	11.0	10.0	110%	4.7%
1,1-Dichloropropene	9.6	10.0	96.0%	8.8	10.0	88.0%	8.7%
Dibromomethane	10.4	10.0	104%	10.6	10.0	106%	1.9%
1,1,1,2-Tetrachloroethane	11.0	10.0	110%	9.3	10.0	93.0%	16.7%
1,2-Dibromo-3-chloropropane	12.0	10.0	120%	9.4	10.0	94.0%	24.3%
1,2,3-Trichloropropane	13.2	10.0	132%	9.4	10.0	94.0%	33.6%
trans-1,4-Dichloro-2-butene	13.5	10.0	135%	9.6	10.0	96.0%	33.8%
1,3,5-Trimethylbenzene	11.8	10.0	118%	9.0	10.0	90.0%	26.9%
1,2,4-Trimethylbenzene	11.8	10.0	118%	8.9	10.0	89.0%	28.0%
Hexachlorobutadiene	12.4	10.0	124%	9.0	10.0	90.0%	31.8%
Ethylene Dibromide	10.0	10.0	100%	9.9	10.0	99.0%	1.0%
Bromochloromethane	10.1	10.0	101%	9.8	10.0	98.0%	3.0%
2,2-Dichloropropane	11.0	10.0	110%	10.2	10.0	102%	7.5%
1,3-Dichloropropane	10.8	10.0	108%	9.5	10.0	95.0%	12.8%
Isopropylbenzene	12.3	10.0	123%	9.2	10.0	92.0%	28.8%
n-Propylbenzene	12.4	10.0	124%	9.1	10.0	91.0%	30.7%
Bromobenzene	12.1	10.0	121%	8.7	10.0	87.0%	32.7%
2-Chlorotoluene	12.5	10.0	125%	9.1	10.0	91.0%	31.5%
4-Chlorotoluene	12.5	10.0	125%	9.0	10.0	90.0%	32.6%
tert-Butylbenzene	12.1	10.0	121%	8.8	10.0	88.0%	31.6%
sec-Butylbenzene	12.0	10.0	120%	8.9	10.0	89.0%	29.7%
4-Isopropyltoluene	12.1	10.0	121%	8.9	10.0	89.0%	30.5%
n-Butylbenzene	11.7	10.0	117%	8.8	10.0	88.0%	28.3%
1,2,4-Trichlorobenzene	11.5	10.0	115%	9.1	10.0	91.0%	23.3%
Naphthalene	11.5	10.0	115%	9.3	10.0	93.0%	21.2%
1,2,3-Trichlorobenzene	11.7	10.0	117%	9.3	10.0	93.0%	22.9%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCSD
d4-1,2-Dichloroethane	113%	111%
d8-Toluene	96.0%	101%
Bromofluorobenzene	93.9%	102%
d4-1,2-Dichlorobenzene	102%	102%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021009

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METHOD BLANK

Lab Sample ID: MB-021009

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 02/12/09

Date Received: NA

Instrument/Analyst: NT7/PKC

Sample Amount: 10.0 mL

Date Analyzed: 02/10/09 14:18

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-021009

Page 2 of 2

METHOD BLANK

Lab Sample ID: MB-021009

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Date Analyzed: 02/10/09 14:18

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	98.3%
d8-Toluene	99.5%
Bromofluorobenzene	97.8%
d4-1,2-Dichlorobenzene	99.9%

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 1 of 2

Sample ID: MB-021109  
METHOD BLANK

Lab Sample ID: MB-021109  
LIMS ID: 09-3554  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Instrument/Analyst: NT7/PKC  
Date Analyzed: 02/11/09 12:47

Sample Amount: 10.0 mL  
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.2	< 0.2	U
74-83-9	Bromomethane	0.5	< 0.5	U
75-01-4	Vinyl Chloride	0.2	< 0.2	U
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	2.5	< 2.5	U
75-15-0	Carbon Disulfide	0.2	< 0.2	U
75-35-4	1,1-Dichloroethene	0.2	< 0.2	U
75-34-3	1,1-Dichloroethane	0.2	< 0.2	U
156-60-5	trans-1,2-Dichloroethene	0.2	< 0.2	U
156-59-2	cis-1,2-Dichloroethene	0.2	< 0.2	U
67-66-3	Chloroform	0.2	< 0.2	U
107-06-2	1,2-Dichloroethane	0.2	< 0.2	U
78-93-3	2-Butanone	2.5	< 2.5	U
71-55-6	1,1,1-Trichloroethane	0.2	< 0.2	U
56-23-5	Carbon Tetrachloride	0.2	< 0.2	U
108-05-4	Vinyl Acetate	1.0	< 1.0	U
75-27-4	Bromodichloromethane	0.2	< 0.2	U
78-87-5	1,2-Dichloropropane	0.2	< 0.2	U
10061-01-5	cis-1,3-Dichloropropene	0.2	< 0.2	U
79-01-6	Trichloroethene	0.2	< 0.2	U
124-48-1	Dibromochloromethane	0.2	< 0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	< 0.2	U
71-43-2	Benzene	0.2	< 0.2	U
10061-02-6	trans-1,3-Dichloropropene	0.2	< 0.2	U
110-75-8	2-Chloroethylvinylether	1.0	< 1.0	U
75-25-2	Bromoform	0.2	< 0.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	2.5	< 2.5	U
591-78-6	2-Hexanone	2.5	< 2.5	U
127-18-4	Tetrachloroethene	0.2	< 0.2	U
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	< 0.2	U
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	< 0.2	U
100-42-5	Styrene	0.2	< 0.2	U
75-69-4	Trichlorofluoromethane	0.2	< 0.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	< 0.2	U
1330-20-7	m,p-Xylene	0.4	< 0.4	U
95-47-6	o-Xylene	0.2	< 0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	< 0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	< 0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	< 0.2	U
107-02-8	Acrolein	5.0	< 5.0	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	0.2	< 0.2	U
107-13-1	Acrylonitrile	1.0	< 1.0	U
563-58-6	1,1-Dichloropropene	0.2	< 0.2	U
74-95-3	Dibromomethane	0.2	< 0.2	U
630-20-6	1,1,1,2-Tetrachloroethane	0.2	< 0.2	U
96-12-8	1,2-Dibromo-3-chloropropane	0.5	< 0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	< 0.5	U

**ORGANICS ANALYSIS DATA SHEET**

Volatiles by Purge & Trap GC/MS-Method SW8260B  
Page 2 of 2

Sample ID: MB-021109  
METHOD BLANK

Lab Sample ID: MB-021109  
LIMS ID: 09-3554  
Matrix: Water  
Date Analyzed: 02/11/09 12:47

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	< 0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	< 0.2	U
87-68-3	Hexachlorobutadiene	0.5	< 0.5	U
106-93-4	Ethylene Dibromide	0.2	< 0.2	U
74-97-5	Bromochloromethane	0.2	< 0.2	U
594-20-7	2,2-Dichloropropane	0.2	< 0.2	U
142-28-9	1,3-Dichloropropane	0.2	< 0.2	U
98-82-8	Isopropylbenzene	0.2	< 0.2	U
103-65-1	n-Propylbenzene	0.2	< 0.2	U
108-86-1	Bromobenzene	0.2	< 0.2	U
95-49-8	2-Chlorotoluene	0.2	< 0.2	U
106-43-4	4-Chlorotoluene	0.2	< 0.2	U
98-06-6	tert-Butylbenzene	0.2	< 0.2	U
135-98-8	sec-Butylbenzene	0.2	< 0.2	U
99-87-6	4-Isopropyltoluene	0.2	< 0.2	U
104-51-8	n-Butylbenzene	0.2	< 0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	< 0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in  $\mu\text{g/L}$  (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	111%
d8-Toluene	102%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	102%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A

QC Report No: OL24-Landau Associates, Inc.

LIMS ID: 09-3551

Project: Boeing Isaacson Phase II

Matrix: Water

025173.090

Data Release Authorized:

Date Sampled: 02/04/09

Reported: 02/12/09

Date Received: 02/04/09

Date Extracted: 02/06/09

Sample Amount: 500 mL

Date Analyzed: 02/10/09 22:04

Final Extract Volume: 0.50 mL

Instrument/Analyst: NT4/LJR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 22:04

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.4%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	87.6%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	28.0%	2-Fluorophenol	42.4%
2,4,6-Tribromophenol	89.1%	d4-2-Chlorophenol	67.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: P2-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-4573  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 20:17  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: P2-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-4573  
Matrix: Water  
Date Analyzed: 02/14/09 20:17

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	<b>bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>28</b>
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	76.4%
d14-p-Terphenyl	85.6%	d4-1,2-Dichlorobenzene	64.8%
d5-Phenol	69.6%	2-Fluorophenol	67.7%
2,4,6-Tribromophenol	94.1%	d4-2-Chlorophenol	71.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2Sample ID: PZ-3-090204  
SAMPLELab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09 QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 22:38  
Instrument/Analyst: NT4/LJRSample Amount: 500 mL  
Final Extract Volume: 0.50 mL  
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Date Analyzed: 02/10/09 22:38

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo (a) anthracene	1.0	< 1.0 U
117-81-7	bis (2-Ethylhexyl) phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo (b) fluoranthene	1.0	< 1.0 U
207-08-9	Benzo (k) fluoranthene	1.0	< 1.0 U
50-32-8	Benzo (a) pyrene	1.0	< 1.0 U
193-39-5	Indeno (1,2,3-cd) pyrene	1.0	< 1.0 U
53-70-3	Dibenz (a,h) anthracene	1.0	< 1.0 U
191-24-2	Benzo (g,h,i) perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	64.0%
d14-p-Terphenyl	89.2%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	27.5%	2-Fluorophenol	42.4%
2,4,6-Tribromophenol	85.1%	d4-2-Chlorophenol	68.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: P2-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-4574  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 20:52  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: P2-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-4574  
Matrix: Water  
Date Analyzed: 02/14/09 20:52

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	71.6%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	79.2%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	66.1%	2-Fluorophenol	65.1%
2,4,6-Tribromophenol	92.0%	d4-2-Chlorophenol	66.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C  
LIMS ID: 09-3553  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/06/09  
Date Analyzed: 02/11/09 17:27  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C  
LIMS ID: 09-3553  
Matrix: Water  
Date Analyzed: 02/11/09 17:27

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	65.2%
d14-p-Terphenyl	90.8%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	27.7%	2-Fluorophenol	43.5%
2,4,6-Tribromophenol	88.0%	d4-2-Chlorophenol	68.5%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C

QC Report No: OL24-The Boeing Company

LIMS ID: 09-4575

Project: BOEING ISAACSON

Matrix: Water

025173.090

Data Release Authorized: *VTS*

Date Sampled: 02/04/09

Reported: 02/17/09

Date Received: 02/04/09

Date Extracted: 02/12/09

Sample Amount: 500 mL

Date Analyzed: 02/14/09 21:27

Final Extract Volume: 0.50 mL

Instrument/Analyst: NT4/LJR

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C  
LIMS ID: 09-4575  
Matrix: Water  
Date Analyzed: 02/14/09 21:27

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	70.4%	2-Fluorobiphenyl	68.0%
d14-p-Terphenyl	76.0%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	60.3%	2-Fluorophenol	63.7%
2,4,6-Tribromophenol	75.5%	d4-2-Chlorophenol	66.4%

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-020609	62.8%	58.4%	83.6%	64.4%	30.7%	45.6%	70.9%	69.1%	0	
LCS-020609	67.2%	67.6%	78.4%	69.2%	33.3%	48.5%	80.3%	75.2%	0	
LCSD-020609	63.2%	69.6%	84.4%	65.2%	32.0%	45.6%	85.9%	69.9%	0	
PZ-6-090204	64.4%	64.4%	87.6%	62.4%	28.0%	42.4%	89.1%	67.5%	0	
PZ-3-090204	64.8%	64.0%	89.2%	65.6%	27.5%	42.4%	85.1%	68.5%	0	
I-200-090204	64.8%	65.2%	90.8%	66.4%	27.7%	43.5%	88.0%	68.5%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(50-104)	(45-98)
(FBP) = 2-Fluorobiphenyl	(49-98)	(53-89)
(TPH) = d14-p-Terphenyl	(48-120)	(46-119)
(DCB) = d4-1,2-Dichlorobenzene	(40-92)	(41-87)
(PHL) = d5-Phenol	(20-62)	(10-66)
(2FP) = 2-Fluorophenol	(17-98)	(23-74)
(TBP) = 2,4,6-Tribromophenol	(56-110)	(51-105)
(2CP) = d4-2-Chlorophenol	(51-97)	(42-93)

Prep Method: SW3510C  
Log Number Range: 09-3551 to 09-3553

**SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-021209	74.8%	70.4%	82.4%	61.2%	72.0%	70.9%	74.9%	74.1%	0	
LCS-021209	76.0%	71.2%	90.0%	65.6%	79.2%	72.5%	93.1%	75.5%	0	
LCS-D-021209	70.0%	75.2%	82.0%	59.2%	67.7%	63.7%	90.9%	65.6%	0	
P2-6-090204	74.8%	76.4%	85.6%	64.8%	69.6%	67.7%	94.1%	71.5%	0	
P2-3-090204	71.6%	72.4%	79.2%	62.4%	66.1%	65.1%	92.0%	66.9%	0	
I-200-090204	70.4%	68.0%	76.0%	64.0%	60.3%	63.7%	75.5%	66.4%	0	

**LCS/MB LIMITS**

**QC LIMITS**

(NBZ) = d5-Nitrobenzene	(54-102)	(40-103)
(FBP) = 2-Fluorobiphenyl	(47-99)	(35-98)
(TPH) = d14-p-Terphenyl	(50-119)	(21-122)
(DCB) = d4-1,2-Dichlorobenzene	(39-86)	(28-85)
(PHL) = d5-Phenol	(45-100)	(32-99)
(2FP) = 2-Fluorophenol	(49-94)	(36-93)
(TBP) = 2,4,6-Tribromophenol	(49-117)	(37-120)
(2CP) = d4-2-Chlorophenol	(54-99)	(40-98)

Prep Method: SW3520C  
Log Number Range: 09-4573 to 09-4575

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/06/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/10/09 13:24  
LCSD: 02/10/09 13:59

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	7.5	25.0	30.0%	7.2	25.0	25.0	28.8%	3.0%
Bis-(2-Chloroethyl) Ether	18.7	25.0	74.8%	17.9	25.0	25.0	71.6%	4.4%
2-Chlorophenol	18.1	25.0	72.4%	16.9	25.0	25.0	67.6%	6.9%
1,3-Dichlorobenzene	16.7	25.0	66.8%	16.1	25.0	25.0	64.4%	3.7%
1,4-Dichlorobenzene	16.6	25.0	66.4%	16.2	25.0	25.0	64.8%	2.4%
Benzyl Alcohol	18.2	50.0	36.4%	18.3	50.0	50.0	36.6%	0.5%
1,2-Dichlorobenzene	17.6	25.0	70.4%	17.0	25.0	25.0	68.0%	3.5%
2-Methylphenol	16.1	25.0	64.4%	15.6	25.0	25.0	62.4%	3.2%
2,2'-Oxybis(1-Chloropropane)	14.3	25.0	57.2%	13.8	25.0	25.0	55.2%	3.6%
4-Methylphenol	30.9	50.0	61.8%	30.7	50.0	50.0	61.4%	0.6%
N-Nitroso-Di-N-Propylamine	16.5	25.0	66.0%	16.4	25.0	25.0	65.6%	0.6%
Hexachloroethane	16.6	25.0	66.4%	16.2	25.0	25.0	64.8%	2.4%
Nitrobenzene	16.2	25.0	64.8%	15.7	25.0	25.0	62.8%	3.1%
Isophorone	17.8	25.0	71.2%	18.1	25.0	25.0	72.4%	1.7%
2-Nitrophenol	18.4	25.0	73.6%	17.8	25.0	25.0	71.2%	3.3%
2,4-Dimethylphenol	12.9	25.0	51.6%	12.5	25.0	25.0	50.0%	3.1%
Benzoic Acid	28.2	75.0	37.6%	29.6	75.0	75.0	39.5%	4.8%
bis(2-Chloroethoxy) Methane	17.7	25.0	70.8%	17.6	25.0	25.0	70.4%	0.6%
2,4-Dichlorophenol	18.4	25.0	73.6%	18.0	25.0	25.0	72.0%	2.2%
1,2,4-Trichlorobenzene	16.4	25.0	65.6%	16.0	25.0	25.0	64.0%	2.5%
Naphthalene	17.8	25.0	71.2%	17.3	25.0	25.0	69.2%	2.8%
4-Chloroaniline	< 5.0	60.0	NA	< 5.0	60.0	60.0	NA	NA
Hexachlorobutadiene	16.1	25.0	64.4%	15.5	25.0	25.0	62.0%	3.8%
4-Chloro-3-methylphenol	18.5	25.0	74.0%	19.1	25.0	25.0	76.4%	3.2%
2-Methylnaphthalene	18.3	25.0	73.2%	18.1	25.0	25.0	72.4%	1.1%
Hexachlorocyclopentadiene	45.9	75.0	61.2%	45.8	75.0	75.0	61.1%	0.2%
2,4,6-Trichlorophenol	17.3	25.0	69.2%	18.1	25.0	25.0	72.4%	4.5%
2,4,5-Trichlorophenol	18.2	25.0	72.8%	18.4	25.0	25.0	73.6%	1.1%
2-Chloronaphthalene	17.5	25.0	70.0%	17.9	25.0	25.0	71.6%	2.3%
2-Nitroaniline	16.7	25.0	66.8%	17.6	25.0	25.0	70.4%	5.2%
Dimethylphthalate	19.1	25.0	76.4%	20.4	25.0	25.0	81.6%	6.6%
Acenaphthylene	18.3	25.0	73.2%	19.0	25.0	25.0	76.0%	3.8%
3-Nitroaniline	17.7	64.0	27.7%	19.7	64.0	64.0	30.8%	10.7%
Acenaphthene	17.9	25.0	71.6%	18.4	25.0	25.0	73.6%	2.8%
2,4-Dinitrophenol	75.8	75.0	101%	85.7	75.0	75.0	114%	12.3%
4-Nitrophenol	9.6	25.0	38.4%	10.2	25.0	25.0	40.8%	6.3%
Dibenzofuran	18.4	25.0	73.6%	19.4	25.0	25.0	77.6%	5.3%
2,6-Dinitrotoluene	18.6	25.0	74.4%	19.8	25.0	25.0	79.2%	6.2%
2,4-Dinitrotoluene	19.7	25.0	78.8%	21.1	25.0	25.0	84.4%	6.9%
Diethylphthalate	19.1	25.0	76.4%	20.7	25.0	25.0	82.8%	8.0%
4-Chlorophenyl-phenylether	18.0	25.0	72.0%	19.0	25.0	25.0	76.0%	5.4%
Fluorene	19.2	25.0	76.8%	20.1	25.0	25.0	80.4%	4.6%
4-Nitroaniline	17.6	25.0	70.4%	18.7	25.0	25.0	74.8%	6.1%
4,6-Dinitro-2-Methylphenol	68.3	75.0	91.1%	76.8	75.0	75.0	102%	11.7%
N-Nitrosodiphenylamine	16.9	25.0	67.6%	18.1	25.0	25.0	72.4%	6.9%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-020609  
LCS/LCSD

Lab Sample ID: LCS-020609  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 13:24

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	16.8	25.0	67.2%	18.1	25.0	72.4%	7.4%
Hexachlorobenzene	17.2	25.0	68.8%	18.4	25.0	73.6%	6.7%
Pentachlorophenol	18.7	25.0	74.8%	20.5	25.0	82.0%	9.2%
Phenanthrene	18.8	28.0	67.1%	20.0	28.0	71.4%	6.2%
Carbazole	19.9	25.0	79.6%	21.4	25.0	85.6%	7.3%
Anthracene	18.3	25.0	73.2%	19.5	25.0	78.0%	6.3%
Di-n-Butylphthalate	19.3	25.0	77.2%	20.8	25.0	83.2%	7.5%
Fluoranthene	19.0	25.0	76.0%	20.3	25.0	81.2%	6.6%
Pyrene	19.7	25.0	78.8%	21.4	25.0	85.6%	8.3%
Butylbenzylphthalate	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
3,3'-Dichlorobenzidine	34.0	64.0	53.1%	41.0	64.0	64.1%	18.7%
Benzo(a)anthracene	18.5	25.0	74.0%	20.2	25.0	80.8%	8.8%
bis(2-Ethylhexyl)phthalate	19.8	25.0	79.2%	22.0	25.0	88.0%	10.5%
Chrysene	18.6	28.0	66.4%	19.8	28.0	70.7%	6.2%
Di-n-Octyl phthalate	18.4	25.0	73.6%	19.9	25.0	79.6%	7.8%
Benzo(b)fluoranthene	20.1	25.0	80.4%	22.5	25.0	90.0%	11.3%
Benzo(k)fluoranthene	19.9	28.0	71.1%	21.2	28.0	75.7%	6.3%
Benzo(a)pyrene	15.5	25.0	62.0%	17.3	25.0	69.2%	11.0%
Indeno(1,2,3-cd)pyrene	17.6	25.0	70.4%	19.4	25.0	77.6%	9.7%
Dibenz(a,h)anthracene	17.7	25.0	70.8%	19.4	25.0	77.6%	9.2%
Benzo(g,h,i)perylene	16.9	25.0	67.6%	18.5	25.0	74.0%	9.0%
1-Methylnaphthalene	19.5	25.0	78.0%	19.8	25.0	79.2%	1.5%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	67.2%	63.2%
2-Fluorobiphenyl	67.6%	69.6%
d14-p-Terphenyl	78.4%	84.4%
d4-1,2-Dichlorobenzene	69.2%	65.2%
d5-Phenol	33.3%	32.0%
2-Fluorophenol	48.5%	45.6%
2,4,6-Tribromophenol	80.3%	85.9%
d4-2-Chlorophenol	75.2%	69.9%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4573  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/12/09

Sample Amount LCS: 500 mL  
LCSD: 500 mL

Date Analyzed LCS: 02/14/09 12:09  
LCSD: 02/14/09 12:44

Final Extract Volume LCS: 0.50 mL  
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/LJR  
LCSD: NT4/LJR

Dilution Factor LCS: 1.00  
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	19.5	25.0	78.0%	16.5	25.0	66.0%	16.7%	
Bis-(2-Chloroethyl) Ether	18.2	25.0	72.8%	16.1	25.0	64.4%	12.2%	
2-Chlorophenol	18.5	25.0	74.0%	16.2	25.0	64.8%	13.3%	
1,3-Dichlorobenzene	12.6	25.0	50.4%	11.6	25.0	46.4%	8.3%	
1,4-Dichlorobenzene	13.0	25.0	52.0%	12.0	25.0	48.0%	8.0%	
Benzyl Alcohol	35.1	50.0	70.2%	31.2	50.0	62.4%	11.8%	
1,2-Dichlorobenzene	13.6	25.0	54.4%	12.4	25.0	49.6%	9.2%	
2-Methylphenol	18.8	25.0	75.2%	16.2	25.0	64.8%	14.9%	
2,2'-Oxybis(1-Chloropropane)	19.0	25.0	76.0%	16.8	25.0	67.2%	12.3%	
4-Methylphenol	38.9	50.0	77.8%	34.1	50.0	68.2%	13.2%	
N-Nitroso-Di-N-Propylamine	18.9	25.0	75.6%	17.0	25.0	68.0%	10.6%	
Hexachloroethane	11.4	25.0	45.6%	10.6	25.0	42.4%	7.3%	
Nitrobenzene	18.7	25.0	74.8%	17.6	25.0	70.4%	6.1%	
Isophorone	20.1	25.0	80.4%	19.6	25.0	78.4%	2.5%	
2-Nitrophenol	18.4	25.0	73.6%	17.6	25.0	70.4%	4.4%	
2,4-Dimethylphenol	18.0	25.0	72.0%	16.7	25.0	66.8%	7.5%	
Benzoic Acid	64.1	75.0	85.5%	59.9	75.0	79.9%	6.8%	
bis(2-Chloroethoxy) Methane	18.3	25.0	73.2%	17.8	25.0	71.2%	2.8%	
2,4-Dichlorophenol	19.1	25.0	76.4%	18.6	25.0	74.4%	2.7%	
1,2,4-Trichlorobenzene	13.8	25.0	55.2%	14.0	25.0	56.0%	1.4%	
Naphthalene	16.4	25.0	65.6%	15.7	25.0	62.8%	4.4%	
4-Chloroaniline	56.2	60.0	93.7%	52.5	60.0	87.5%	6.8%	
Hexachlorobutadiene	11.9	25.0	47.6%	12.7	25.0	50.8%	6.5%	
4-Chloro-3-methylphenol	20.9	25.0	83.6%	20.1	25.0	80.4%	3.9%	
2-Methylnaphthalene	17.0	25.0	68.0%	16.8	25.0	67.2%	1.2%	
Hexachlorocyclopentadiene	31.3	75.0	41.7%	38.6	75.0	51.5%	20.9%	
2,4,6-Trichlorophenol	18.9	25.0	75.6%	20.4	25.0	81.6%	7.6%	
2,4,5-Trichlorophenol	19.6	25.0	78.4%	20.7	25.0	82.8%	5.5%	
2-Chloronaphthalene	16.2	25.0	64.8%	17.8	25.0	71.2%	9.4%	
2-Nitroaniline	21.8	25.0	87.2%	22.0	25.0	88.0%	0.9%	
Dimethylphthalate	21.0	25.0	84.0%	21.2	25.0	84.8%	0.9%	
Acenaphthylene	18.4	25.0	73.6%	19.4	25.0	77.6%	5.3%	
3-Nitroaniline	65.7	64.0	103%	63.6	64.0	99.4%	3.2%	
Acenaphthene	18.4	25.0	73.6%	19.8	25.0	79.2%	7.3%	
2,4-Dinitrophenol	93.0	75.0	124%	93.8	75.0	125%	0.9%	
4-Nitrophenol	22.4	25.0	89.6%	21.8	25.0	87.2%	2.7%	
Dibenzofuran	19.3	25.0	77.2%	20.2	25.0	80.8%	4.6%	
2,6-Dinitrotoluene	21.2	25.0	84.8%	21.2	25.0	84.8%	0.0%	

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: LCS-021209  
LCS/LCSD

Lab Sample ID: LCS-021209  
LIMS ID: 09-4573  
Matrix: Water  
Date Analyzed: 02/14/09 12:09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrotoluene	22.0	25.0	88.0%	21.6	25.0	86.4%	1.8%
Diethylphthalate	20.4	25.0	81.6%	20.2	25.0	80.8%	1.0%
4-Chlorophenyl-phenylether	19.7	25.0	78.8%	20.2	25.0	80.8%	2.5%
Fluorene	20.4	25.0	81.6%	20.8	25.0	83.2%	1.9%
4-Nitroaniline	21.4	25.0	85.6%	20.4	25.0	81.6%	4.8%
4,6-Dinitro-2-Methylphenol	76.5	75.0	102%	80.2	75.0	107%	4.7%
N-Nitrosodiphenylamine	19.2	25.0	76.8%	20.2	25.0	80.8%	5.1%
4-Bromophenyl-phenylether	18.9	25.0	75.6%	20.7	25.0	82.8%	9.1%
Hexachlorobenzene	19.6	25.0	78.4%	21.6	25.0	86.4%	9.7%
Pentachlorophenol	20.0	25.0	80.0%	22.0	25.0	88.0%	9.5%
Phenanthrene	20.5	25.0	82.0%	21.6	25.0	86.4%	5.2%
Carbazole	20.8	25.0	83.2%	21.2	25.0	84.8%	1.9%
Anthracene	19.8	25.0	79.2%	21.0	25.0	84.0%	5.9%
Di-n-Butylphthalate	20.4	25.0	81.6%	21.3	25.0	85.2%	4.3%
Fluoranthene	20.2	25.0	80.8%	21.9	25.0	87.6%	8.1%
Pyrene	21.1	25.0	84.4%	19.6	25.0	78.4%	7.4%
Butylbenzylphthalate	20.9	25.0	83.6%	20.2	25.0	80.8%	3.4%
3,3'-Dichlorobenzidine	52.2	64.0	81.6%	57.5	64.0	89.8%	9.7%
Benzo(a)anthracene	20.4	25.0	81.6%	21.4	25.0	85.6%	4.8%
bis(2-Ethylhexyl)phthalate	21.0	25.0	84.0%	20.8	25.0	83.2%	1.0%
Chrysene	19.9	25.0	79.6%	20.9	25.0	83.6%	4.9%
Di-n-Octyl phthalate	20.2	25.0	80.8%	21.8	25.0	87.2%	7.6%
Benzo(b)fluoranthene	19.6	25.0	78.4%	22.0	25.0	88.0%	11.5%
Benzo(k)fluoranthene	22.6	25.0	90.4%	21.1	25.0	84.4%	6.9%
Benzo(a)pyrene	16.6	25.0	66.4%	17.8	25.0	71.2%	7.0%
Indeno(1,2,3-cd)pyrene	19.4	25.0	77.6%	22.0	25.0	88.0%	12.6%
Dibenz(a,h)anthracene	18.9	25.0	75.6%	21.5	25.0	86.0%	12.9%
Benzo(g,h,i)perylene	18.4	25.0	73.6%	20.7	25.0	82.8%	11.8%
1-Methylnaphthalene	18.0	25.0	72.0%	17.8	25.0	71.2%	1.1%

**Semivolatile Surrogate Recovery**

	LCS	LCSD
d5-Nitrobenzene	76.0%	70.0%
2-Fluorobiphenyl	71.2%	75.2%
d14-p-Terphenyl	90.0%	82.0%
d4-1,2-Dichlorobenzene	65.6%	59.2%
d5-Phenol	79.2%	67.7%
2-Fluorophenol	72.5%	63.7%
2,4,6-Tribromophenol	93.1%	90.9%
d4-2-Chlorophenol	75.5%	65.6%

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

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
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Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/06/09  
Date Analyzed: 02/10/09 12:49  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-020609  
METHOD BLANK

Lab Sample ID: MB-020609  
LIMS ID: 09-3551  
Matrix: Water  
Date Analyzed: 02/10/09 12:49

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	58.4%
d14-p-Terphenyl	83.6%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	30.7%	2-Fluorophenol	45.6%
2,4,6-Tribromophenol	70.9%	d4-2-Chlorophenol	69.1%

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 1 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209  
LIMS ID: 09-4573  
Matrix: Water  
Data Release Authorized: *VTS*  
Reported: 02/17/09

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/12/09  
Date Analyzed: 02/14/09 11:35  
Instrument/Analyst: NT4/LJR

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

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET  
Semivolatiles by SW8270D GC/MS  
Page 2 of 2

Sample ID: MB-021209  
METHOD BLANK

Lab Sample ID: MB-021209  
LIMS ID: 09-4573  
Matrix: Water  
Date Analyzed: 02/14/09 11:35

QC Report No: OL24-The Boeing Company  
Project: BOEING ISAACSON  
025173.090

CAS Number	Analyte	RL	Result
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**Semivolatile Surrogate Recovery**

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	70.4%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	72.0%	2-Fluorophenol	70.9%
2,4,6-Tribromophenol	74.9%	d4-2-Chlorophenol	74.1%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: PZ-6-090204

SAMPLE

Lab Sample ID: OL24A

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 17:31

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 59.7%  
d14-Dibenzo(a,h)anthracene 35.7%

**ORGANICS ANALYSIS DATA SHEET**

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: PZ-3-090204

SAMPLE

Lab Sample ID: OL24B

LIMS ID: 09-3552

Matrix: Water

Data Release Authorized: *MW*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 17:53

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo (a) anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo (b) fluoranthene	0.10	< 0.10 U
207-08-9	Benzo (k) fluoranthene	0.10	< 0.10 U
50-32-8	Benzo (a) pyrene	0.10	< 0.10 U
193-39-5	Indeno (1,2,3-cd) pyrene	0.10	< 0.10 U
53-70-3	Dibenz (a,h) anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 61.7%  
d14-Dibenzo (a,h) anthracene 71.3%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: I-200-090204

SAMPLE

Lab Sample ID: OL24C

LIMS ID: 09-3553

Matrix: Water

Data Release Authorized: *W*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 18:16

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 59.3%  
d14-Dibenzo(a,h)anthracene 70.7%

**SIM SW8270 SURROGATE RECOVERY SUMMARY**

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-020909	63.3%	80.0%	0
LCS-020909	63.7%	81.3%	0
LCSD-020909	58.7%	79.7%	0
PZ-6-090204	59.7%	35.7%	0
PZ-3-090204	61.7%	71.3%	0
I-200-090204	59.3%	70.7%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(MNP) = d10-2-Methylnaphthalene	(49-113)	(44-112)
(DBA) = d14-Dibenzo(a,h)anthracene	(49-132)	(10-138)

Prep Method: SW3520C  
Log Number Range: 09-3551 to 09-3553

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-020909

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020909

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: *mm*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 02/09/09

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 02/11/09 12:37

Final Extract Volume LCS: 0.50 mL

LCSD: 02/11/09 12:59

LCSD: 0.50 mL

Instrument/Analyst LCS: NT1/PK

Dilution Factor LCS: 1.00

LCSD: NT1/PK

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzo(a)anthracene	2.27	3.00	75.7%	2.38	3.00	79.3%	4.7%
Chrysene	2.43	3.00	81.0%	2.45	3.00	81.7%	0.8%
Benzo(b)fluoranthene	2.53	3.00	84.3%	2.41	3.00	80.3%	4.9%
Benzo(k)fluoranthene	2.94	3.00	98.0%	3.04	3.00	101%	3.3%
Benzo(a)pyrene	2.57	3.00	85.7%	2.49	3.00	83.0%	3.2%
Indeno(1,2,3-cd)pyrene	2.41	3.00	80.3%	2.47	3.00	82.3%	2.5%
Dibenz(a,h)anthracene	2.52	3.00	84.0%	2.50	3.00	83.3%	0.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

**SIM Semivolatile Surrogate Recovery**

	LCS	LCSD
d10-2-Methylnaphthalene	63.7%	58.7%
d14-Dibenzo(a,h)anthracene	81.3%	79.7%

**ORGANICS ANALYSIS DATA SHEET**

PNA's by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: MB-020909

METHOD BLANK

Lab Sample ID: MB-020909

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: *mw*

Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

Event: 025173.090

Date Sampled: NA

Date Received: NA

Date Extracted: 02/09/09

Date Analyzed: 02/11/09 12:14

Instrument/Analyst: NT1/PK

Sample Amount: 500 mL

Final Extract Volume: 0.5 mL

Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	0.10	< 0.10 U
218-01-9	Chrysene	0.10	< 0.10 U
205-99-2	Benzo(b)fluoranthene	0.10	< 0.10 U
207-08-9	Benzo(k)fluoranthene	0.10	< 0.10 U
50-32-8	Benzo(a)pyrene	0.10	< 0.10 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	< 0.10 U
53-70-3	Dibenz(a,h)anthracene	0.10	< 0.10 U

Reported in µg/L (ppb)

**SIM Semivolatile Surrogate Recovery**

d10-2-Methylnaphthalene 63.3%  
d14-Dibenzo(a,h)anthracene 80.0%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: PZ-6-090204  
SAMPLE

Lab Sample ID: OL24A  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 14:05  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	55.5%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Data Release Authorized:   
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 14:23  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	84.2%
Tetrachlorometaxylene	60.8%

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: I-200-090204  
SAMPLE

Lab Sample ID: OL24C  
LIMS ID: 09-3553  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 14:40  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	62.0%

SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

<u>Client ID</u>	<u>DCBP % REC</u>	<u>DCBP LCL-UCL</u>	<u>TCMX % REC</u>	<u>TCMX LCL-UCL</u>	<u>TOT OUT</u>
MB-020909	88.8%	47-101	65.8%	61-104	0
LCS-020909	81.8%	47-101	57.2%*	61-104	1
LCSD-020909	83.8%	47-101	59.5%*	61-104	1
PZ-6-090204	87.5%	42-120	55.5%	55-102	0
PZ-3-090204	84.2%	42-120	60.8%	55-102	0
I-200-090204	78.2%	42-120	62.0%	55-102	0

Prep Method: SW3510C  
Log Number Range: 09-3551 to 09-3553

ORGANICS ANALYSIS DATA SHEET  
PCB by GC/ECD Method SW8082  
Page 1 of 1

Sample ID: LCS-020909  
LCS/LCSD

Lab Sample ID: LCS-020909  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized: *[Signature]*  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted LCS/LCSD: 02/09/09  
Date Analyzed LCS: 02/10/09 10:57  
LCSD: 02/10/09 11:14  
Instrument/Analyst LCS: ECD5/JGR  
LCSD: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount LCS: 500 mL  
LCSD: 500 mL  
Final Extract Volume LCS: 5.0 mL  
LCSD: 5.0 mL  
Dilution Factor LCS: 1.00  
LCSD: 1.00  
Silica Gel: No  
Acid Cleanup: No

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	LCSD		
Aroclor 1016	3.98	5.00	79.6%	4.25	5.00	85.0%	6.6%		
Aroclor 1260	4.50	5.00	90.0%	4.52	5.00	90.4%	0.4%		

**PCB Surrogate Recovery**

	LCS	LCSD
Decachlorobiphenyl	81.8%	83.8%
Tetrachlorometaxylene	57.2%	59.5%

Results reported in  $\mu\text{g/L}$   
RPD calculated using sample concentrations per SW846.

Sample ID: MB-020909  
METHOD BLANK

Lab Sample ID: MB-020909  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized: *AB*  
Reported: 02/12/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

Date Extracted: 02/09/09  
Date Analyzed: 02/10/09 10:39  
Instrument/Analyst: ECD5/JGR  
GPC Cleanup: No  
Sulfur Cleanup: No

Sample Amount: 500 mL  
Final Extract Volume: 5.0 mL  
Dilution Factor: 1.00  
Silica Gel: No  
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in  $\mu\text{g/L}$  (ppb)

**PCB Surrogate Recovery**

Decachlorobiphenyl	88.8%
Tetrachlorometaxylene	65.8%

**ORGANICS ANALYSIS DATA SHEET**  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1  
 Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
 Project: Boeing Isaacson Phase II  
 025173.090

Data Release Authorized:   
 Reported: 02/09/09

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
MB-020609 09-3551	Method Blank	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	76.8%
OL24A 09-3551	PZ-6-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	83.2%
OL24B 09-3552	PZ-3-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	83.1%
OL24C 09-3553	I-200-090204 HC ID: ---	02/06/09	02/07/09	1.0	Gas	< 0.25 U
					Diesel	< 0.63 U
					Oil	< 0.63 U
					o-Terphenyl	69.0%

Reported in mg/L (ppm)

Gas value based on total peaks in the range from Toluene to C12.  
 Diesel value based on the total peaks in the range from C12 to C24.  
 Oil value based on the total peaks in the range from C24 to C38.

HCID SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090

<u>Client ID</u>	<u>O-TER</u>	<u>TOT OUT</u>
MB-020609	76.8%	0
LCS-020609	89.6%	0
LCSD-020609	88.1%	0
PZ-6-090204	83.2%	0
PZ-3-090204	83.1%	0
I-200-090204	69.0%	0

LCS/MB LIMITS      QC LIMITS

(O-TER) = o-Terphenyl

(55-110)

(50-150)

Prep Method: SW3510C  
Log Number Range: 09-3551 to 09-3553

ORGANICS ANALYSIS DATA SHEET  
 NWTPH-HCID Method by GC/FID  
 Page 1 of 1

Sample ID: LCS-020609  
 LCS/LCSD

Lab Sample ID: LCS-020609  
 LIMS ID: 09-3551  
 Matrix: Water  
 Data Release Authorized: *AS*  
 Reported: 02/09/09

QC Report No: OL24-Landau Associates, Inc.  
 Project: Boeing Isaacson Phase II  
 025173.090  
 Date Sampled: 02/04/09  
 Date Received: 02/04/09

Date Extracted LCS/LCSD: 02/06/09  
 Date Analyzed LCS: 02/07/09 02:17  
 LCSD: 02/07/09 02:35  
 Instrument/Analyst LCS: FID/MS  
 LCSD: FID/MS

Sample Amount LCS: 500 mL  
 LCSD: 500 mL  
 Final Extract Volume LCS: 1.0 mL  
 LCSD: 1.0 mL  
 Dilution Factor LCS: 1.00  
 LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	2.45	3.00	81.7%	2.41	3.00	80.3%	1.6%

**HCID Surrogate Recovery**

	LCS	LCSD
o-Terphenyl	89.6%	88.1%

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

**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Water  
Date Received: 02/04/09

ARI Job: OL24  
Project: Boeing Isaacson Phase II  
025173.090

ARI ID	Client ID	Sample Amt	Final Vol	Prep Date
09-3551-020609MB	Method Blank	500 mL	1.00 mL	02/06/09
09-3551-020609LCS	Lab Control	500 mL	1.00 mL	02/06/09
09-3551-020609LCSD	Lab Control Dup	500 mL	1.00 mL	02/06/09
09-3551-OL24A	PZ-6-090204	500 mL	1.00 mL	02/06/09
09-3552-OL24B	PZ-3-090204	500 mL	1.00 mL	02/06/09
09-3553-OL24C	I-200-090204	500 mL	1.00 mL	02/06/09

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: PZ-6-090204

SAMPLE

Lab Sample ID: OL24A

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: 

Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	2	505	
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	5	5	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: PZ-3-090204  
SAMPLE

Lab Sample ID: OL24B  
LIMS ID: 09-3552  
Matrix: Water  
Data Release Authorized:   
Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: 02/04/09  
Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	0.2	11.7	
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	1	1	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**DISSOLVED METALS**

Page 1 of 1

Sample ID: I-200-090204

SAMPLE

Lab Sample ID: OL24C

LIMS ID: 09-3553

Matrix: Water

Data Release Authorized: 

Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Date Sampled: 02/04/09

Date Received: 02/04/09

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	0.2	0.8	
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	1	1	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET  
DISSOLVED METALS  
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: OL24LCS  
LIMS ID: 09-3551  
Matrix: Water  
Data Release Authorized:   
Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.  
Project: Boeing Isaacson Phase II  
025173.090  
Date Sampled: NA  
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	26.2	25.0	105%	
Cadmium	6010B	498	500	99.6%	
Chromium	6010B	465	500	93.0%	
Copper	6010B	465	500	93.0%	
Lead	200.8	28	25	112%	
Mercury	7470A	2.1	2.0	105%	
Zinc	6010B	480	500	96.0%	

Reported in µg/L

N-Control limit not met  
Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**  
**DISSOLVED METALS**  
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: OL24MB

LIMS ID: 09-3551

Matrix: Water

Data Release Authorized: 

Reported: 02/20/09

QC Report No: OL24-Landau Associates, Inc.

Project: Boeing Isaacson Phase II

025173.090

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/12/09	200.8	02/16/09	7440-38-2	Arsenic	0.2	0.2	U
6010B	02/12/09	6010B	02/13/09	7440-43-9	Cadmium	2	2	U
6010B	02/12/09	6010B	02/13/09	7440-47-3	Chromium	5	5	U
6010B	02/12/09	6010B	02/13/09	7440-50-8	Copper	2	2	U
200.8	02/12/09	200.8	02/17/09	7439-92-1	Lead	1	1	U
7470A	02/12/09	7470A	02/19/09	7439-97-6	Mercury	0.1	0.1	U
6010B	02/12/09	6010B	02/13/09	7440-66-6	Zinc	10	10	U

U-Analyte undetected at given RL  
RL-Reporting Limit