

**Independent Remedial Action Report
Former Diesel Generator/
Aboveground Storage Tank KSA-46 Area
Boeing Space Center
Kent, Washington**

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Prepared for

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1.0 INTRODUCTION

This Independent Remedial Action Report was prepared for The Boeing Company (Boeing) to document the removal of petroleum-impacted soil from the area of a former diesel generator and aboveground storage tank (AST) KSA-46 associated with former Building 18-21 at the Boeing Space Center (BSC). The BSC is located at 20403 68th Avenue South in the City of Kent, King County, Washington (Figure 1). The diesel generator and AST KSA-46 (diesel generator and AST area) were located in the west portion of the BSC, near the northeast corner of former Building 18-21 (Figure 2). The cleanup activities in the diesel generator and AST area were conducted by Boeing as an independent remedial action consistent with the requirements of the Washington State Department of Ecology (Ecology) Model Toxics Control Act [MTCA; chapter 173-340 Washington Administrative Code (WAC)] and the *Work Plan for Building 18-21 Diesel Generator Soil Removal Action* (Landau Associates 2010a). The purpose of the remedial action was to remove and appropriately dispose of soil containing petroleum hydrocarbons at concentrations greater than the applicable MTCA soil cleanup levels resulting from releases from the former generator and associated AST. After the remedial action, and as part of other due diligence activities at the BSC, additional investigations were conducted in the vicinity of the diesel generator and AST area to document current (i.e., post-remedial action) conditions and to confirm the effectiveness and completion of the remedial action activities. The additional investigation results pertaining to the diesel generator and AST area are also summarized in this report.

This report has been prepared to satisfy the MTCA reporting requirements [WAC 173-340-515(4)].

1.1 SITE BACKGROUND AND DESCRIPTION

The diesel generator and AST area is located in the City of Kent, King County, Washington, and within the BSC. As noted above, a diesel generator and AST associated with former Building 18-21 were formerly located in the west portion of the BSC (Figure 1). The BSC is in a commercial and industrial area of Kent and has been used by Boeing for aerospace-related manufacturing and administrative operations since the original site development in the 1960s. As noted below, various activities are ongoing to assess and document environmental conditions at the BSC as part of planning for potential reuse or redevelopment of the property. The area surrounding the diesel generator and AST area currently consists of vacant, grass-covered land to the north, west, and south, and Building 18-25 (cafeteria) to the east. Two buildings (Buildings 18-22 and 18-21) were formerly located north and west of the diesel generator and AST area. The diesel generator and AST area relative to the former and existing buildings is shown on Figure 2. A renovation project is in process at Building 18-25, which

includes an asphalt-paved truck turnaround that was constructed over the diesel generator and AST area; as a result, the area is now capped with asphalt pavement.

Landau Associates conducted Phase I and Phase II Environmental Site Assessments (ESAs; Landau Associates 2002 a, b) for a portion of the BSC in 2002, and identified two documented releases of diesel fuel from the former diesel generator and associated AST KSA-46, which occurred in August and December of 2000. The releases and associated cleanup actions and confirmation sampling were described in a technical memorandum submitted to Ecology by Boeing under the Voluntary Cleanup Program (VCP) in 2003 (Appendix A). Based on the information presented in the technical memorandum, Ecology issued a No Further Action (NFA) determination on July 10, 2003 for the diesel generator and associated AST KSA-46 cleanup.

In 2010, soil and groundwater sampling was conducted in the area of the diesel generator and AST as part of a Phase II ESA completed during Boeing's due diligence for potential reuse or redevelopment of a portion of the BSC. The analytical results for the soil and groundwater samples identified petroleum hydrocarbons in soil to the west of the former diesel generator; therefore, additional remedial action and investigation was warranted. Later in 2010, planned changes to the BSC property resulted in the removal of the diesel generator and associated AST by Boeing.

1.2 SITE GEOLOGY AND HYDROGEOLOGY

The Duwamish Valley is a north-south trending valley bounded on the west and east by glacial upland areas. The valley walls are relatively steep-sided and rise about 350 to 400 feet (ft) above the valley floor. The Duwamish/Green River Valley is part of a relict subglacial meltwater trough eroded during the retreat of the Puget lobe about 14,000 years ago (Dragovich et al. 1994). As the glacial ice retreated, meltwater streams issuing from the receding ice front laid down extensive deposits of stratified sand and gravel drift in the area. With the retreat of the glacial ice north of the Strait of Juan de Fuca, and rapid rise of sea level due to deglaciation, marine waters entered the Duwamish/Green River trough (Dragovich et al. 1994). During this time, the valley was being filled by marine, deltaic, and alluvial deposits from the ancestral Puyallup and Green rivers.

About 5,000 years ago, Mount Rainier erupted and a large volcanic mudflow, known as the Osceola Mudflow, swept down both the White River and Puyallup River valleys. The mudflow displaced the ancestral White River from its ancient channel northward to its present location near present-day Auburn, approximately 10 miles south of the BSC. After the mudflow, rapid incision and erosion of the mudflow sediment within the White River Valley resulted in increased sediment loads and rapid delta formation. Where the White River joined the Duwamish/Green River trough, coarser-grained sediments

were deposited in an alluvial fan that extends well out into the valley. The post-Osceola Mudflow river aggradation and delta progradation eventually filled the valley to near its present-day contours.

As the sediment load carried by the White River decreased, finer-grained deposits of silt, sandy silt, silty fine sand, and occasional layers of peat and organic silt were laid down by the White and Green rivers. These deposits are characteristic of the current near-surface depositional environment in the valley. The Green River, located about 600 ft west of the BSC, currently flows northward through the valley to Puget Sound approximately 15 miles to the north-northwest.

The results of subsurface investigations conducted at the BSC for Boeing in 2010 indicate that the property is underlain by approximately 10 ft of fill material underlain by alluvium. The fill generally consists of brown fine to medium sand to a maximum depth of 8 ft. Beneath the fill, the native soil consists of gray sands and silts. Groundwater was encountered during drilling at depths ranging from 3 to 8 ft BGS (Landau Associates 2010b).

The groundwater gradient is locally very flat; the direction of groundwater flow in the subject property area is generally to the northwest toward the Green River. Elevation measurements from monitoring wells at the BSC in 2001 indicate local variability in groundwater elevations with no distinct direction of flow (Landau Associates 2002a).

2.0 PRE-REMEDIAL ACTION ENVIRONMENTAL INVESTIGATIONS

Boeing has conducted various environmental investigations and remedial actions at the BSC since the property was developed in the 1960s. The most recent investigations that included the diesel generator and AST area were the 2010 Phase I and Phase II ESAs (Landau Associates 2010b,c). The results from these two investigations that are relevant to the diesel generator and AST area are summarized below.

2.1 2010 PHASE I ENVIRONMENTAL SITE ASSESSMENT

The 2010 Phase I ESA was conducted to assess the potential for hazardous substances or wastes to exist at the BSC to the extent that they represent a significant liability to Boeing or a prospective purchaser of the property. The Phase I ESA was conducted in general accordance with the guidelines of ASTM International (ASTM) as identified in its *Standard Practice for Environmental Site Assessment Process, E 1527-00*, and as currently applied in Washington State.

The Phase I ESA included a review of available information regarding the BSC including the development history, former and current operations, regulatory status, and previous investigations. The conclusions of the Phase I ESA as they relate to the diesel generator and AST area are as follows:

- Diesel fuel was released locally to shallow soil and perched groundwater in the immediate vicinity of the generator and AST in August and December of 2000.
- The releases were remediated by the excavation and offsite disposal of petroleum-impacted soil. Approximately 4 cubic yards of soil were removed in response to the August 2000 release and approximately 48 cubic yards of soil were removed in response to the December 2000 release. Following the December 2000 soil removal, the excavation was backfilled with alternating layers of Oxygen Release Compound (ORC) slurry and gravel to aid with the remediation of residual petroleum-impacted soil. Confirmation soil samples indicated that soil with concentrations of petroleum hydrocarbons greater than the cleanup levels was removed. Ecology issued an NFA determination through the VCP in 2003.
- The two releases of diesel fuel from the former diesel generator were identified as *historical recognized environmental conditions*, as defined by ASTM.

Additional details regarding the releases are included in the technical memorandum provided in Appendix A.

2.2 2010 PHASE II ENVIRONMENTAL SITE ASSESSMENT

The 2010 Phase II ESA was conducted to evaluate soil, soil gas, and groundwater quality in areas of the BSC potentially impacted by environmental conditions identified in the Phase I ESA and to establish baseline subsurface conditions prior to any reuse or redevelopment (Landau Associates 2010b). During the Phase II ESA, soil and groundwater samples were collected from direct-push boring DP-3,

which was advanced approximately 60 ft west and hydraulically downgradient of the former diesel generator location (Figure 3), based on area groundwater flow toward the Green River to the northwest. The soil and groundwater samples were analyzed for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method SW8260C, semivolatile organic compounds (SVOCs) by EPA Method SW8270D, gasoline-range total petroleum hydrocarbons (TPH-G) by Ecology Method NWTPH-G, diesel-range total petroleum hydrocarbons (TPH-D) and oil-range petroleum hydrocarbons (TPH-O) by Ecology Method NWTPH-Dx, dissolved metals by EPA Method 200.8/SW6010B/SW7470/SW7471, polychlorinated biphenyls (PCBs) by EPA Method SW8082, and hexavalent chromium by Standard Method SM3500.

Except for petroleum hydrocarbon compounds and lead, the analytical results for the soil and groundwater samples collected at location DP-3 were compared to preliminary MTCA Method B cleanup levels for screening purposes. The analytical results for petroleum hydrocarbon compounds and lead were compared to MTCA Method A cleanup levels based on unrestricted land use. The analytical results for the soil samples collected at DP-3 are provided in Table 1 and are summarized as follows:

- TPH-G was detected in soil at DP-3 at a concentration [890 milligrams per kilogram (mg/kg)] greater than the screening level (100 mg/kg). The laboratory analytical report indicated that the reported TPH-G detection is within the gasoline range, but does not match an identifiable gasoline pattern. TPH-D was detected at DP-3 at a concentration equal to the screening level (2,000 mg/kg) and TPH-O was detected at a concentration (67 mg/kg) less than the screening level (2,000 mg/kg).
- VOCs, SVOCs, and metals were detected in soil at DP-3 at concentrations greater than the laboratory reporting limits, but less than the screening levels. Benzene was not detected in soil at a concentration greater than the laboratory reporting limit.
- PCBs and hexavalent chromium were not detected in soil at DP-3 at concentrations greater than the laboratory reporting limits.

The analytical results for the groundwater sample collected at DP-3 are provided in Table 2 and are summarized as follows:

- TPH-G was detected in groundwater at DP-3 at a concentration greater than the laboratory reporting limit, but less than the screening level [1.0 milligrams per liter (mg/L)]. The laboratory analytical report indicated that the reported TPH-G detection is within the gasoline range, but does not match an identifiable gasoline pattern. TPH-D was also detected in the groundwater at DP-3 at a concentration (0.11 mg/L) greater than the laboratory reporting limit, but less than the screening level (0.5 mg/L). TPH-O was not detected in the sample from DP-3 at a concentration greater than the laboratory reporting limit.
- VOCs and SVOCs were detected in groundwater at DP-3 at concentrations greater than the laboratory reporting limits, but less than the screening levels. Benzene was not detected in groundwater at a concentration greater than the laboratory reporting limit.
- Dissolved metals and hexavalent chromium were not detected in groundwater at DP-3 at concentrations greater than the laboratory reporting limits with the exception of arsenic,

which was detected at a concentration of 40.3 micrograms per liter ($\mu\text{g/L}$), which is above the screening level ($5 \mu\text{g/L}$).

Based on the results of the Phase II ESA, further action was recommended to address the petroleum hydrocarbon concentrations detected in soil and groundwater near the location of the former diesel generator and associated AST KSA-46.

3.0 NATURE AND EXTENT OF CONTAMINATION

The nature and extent of contamination in the former diesel generator and AST area were evaluated based on the analytical results for the 2010 Phase II soil and groundwater samples collected from the diesel generator and AST area.

3.1 SOIL

As summarized in Section 2.2, soil in the former diesel generator area contained concentrations of petroleum hydrocarbons (TPH-G and TPH-D) above or equal to the soil screening levels, which were based on the MTCA Method A soil cleanup levels for unrestricted land uses (100 mg/kg for TPH-G and 2,000 mg/kg for TPH-D). Based on the information obtained during the Phase I ESA, there is no known source of gasoline in the vicinity of the petroleum-impacted soil. Also, as discussed in Section 2.2, the laboratory analytical report indicated that the reported TPH-G detection was within the gasoline range, but did not match an identifiable gasoline pattern.

3.2 GROUNDWATER

A groundwater sample collected from a direct-push boring immediately downgradient of the former diesel generator and AST during the 2010 Phase II ESA indicated detectable concentrations of TPH-G and TPH-D; however, the detected concentrations were less than the screening levels (see Section 2.2). Also, the laboratory analytical report indicated that the reported TPH-G detection was within the gasoline range but did not match an identifiable gasoline pattern. Only dissolved arsenic was detected in groundwater at a concentration greater than the screening level. Arsenic was not detected in soil at this location at concentrations above the screening level; therefore, the source of the arsenic in groundwater is not known. Arsenic has also been detected in groundwater at concentrations greater than the screening levels at other locations on the BSC property and investigations of the nature and extent of arsenic in groundwater at the BSC property have not identified a potential source of arsenic at the property. Based on the analytical data for the BSC property, the arsenic in groundwater at the BSC appears to reflect area-wide groundwater conditions and does not appear to be due to a property-specific source; therefore, the arsenic in groundwater at the diesel generator and AST area is not likely due to a release of a hazardous substance at the property or a site-specific source.

4.0 CLEANUP STANDARDS

This section identifies the constituents of concern (COCs) for the diesel generator and AST area and presents the development of cleanup standards for these COCs. The cleanup standards consist of soil and groundwater cleanup levels that are adequately protective of human health and the environment, the point of compliance at which the cleanup levels must be met, and any other applicable local, state, or federal laws.

4.1 CONSTITUENTS OF CONCERN

The COCs for the diesel generator and AST area were determined based on the known contaminant releases within the diesel generator and AST area and a comparison of analytical results for soil and groundwater samples collected in the area during the 2010 Phase II ESA to the Phase II ESA screening levels. As discussed in Section 2.1, two known releases of diesel fuel had previously occurred in the diesel generator area; therefore, TPH-D was identified as a COC. Also, as discussed in Section 3.1, TPH-G was detected in soil at a concentration greater than the screening level during the Phase II ESA; therefore, TPH-G was also identified as a COC. Although, dissolved arsenic was previously detected in groundwater at the diesel generator and AST area at a concentration greater than the screening level, arsenic was not identified as a COC because, as discussed in Section 3.2, the elevated arsenic concentration appears to reflect area-wide groundwater conditions and does not appear to be due to a property-specific source. Concentrations for all other detected constituents were below the Phase II screening levels and, therefore, were not identified as COCs.

4.2 CLEANUP LEVELS

Cleanup levels for groundwater and soil that are adequately protective of human health were developed for the COCs identified in Section 4.1 (TPH-D and TPH-G) in accordance with MTCA requirements and as described below. No cleanup levels protective of ecological receptors were developed because a simplified terrestrial ecological evaluation (TEE) exposure analysis, completed in accordance with WAC 173-340-7492, indicates that land use at the diesel generator and AST area and surrounding area make significant wildlife exposure unlikely, thereby excluding the diesel generator and AST area from any further TEE. Documentation for the exposure analysis is provided in Appendix B.

4.2.1 GROUNDWATER

Cleanup levels for groundwater that are adequately protective of human health were developed for the COCs using MTCA Method A [WAC 173-340-720(3)]. The MTCA Method A groundwater

cleanup level for TPH-G is 0.8 mg/L when benzene is present and 1.0 mg/L when benzene is not present. Because benzene was detected in a soil sample collected during a supplemental Phase II ESA (see Section 7.2.1), a concentration of 0.8 mg/L was selected as a conservative cleanup level for groundwater within the diesel generator and AST area. The MTCA Method A cleanup level for TPH-D and TPH-O is 0.5 mg/L.

4.2.2 SOIL

Unlike groundwater, MTCA Method A was not used to develop soil cleanup levels protective of human health. As previously discussed in Section 3.0, the analysis of a soil sample and a groundwater sample collected from within the diesel generator and AST area by Method NWTPH-G determined that the reported TPH-G detections in the samples were within the gasoline range, but did not match an identifiable gasoline pattern. Also, the only known releases of petroleum products in the diesel generator area were diesel. Based on this information, the type of petroleum hydrocarbon detected in the soil and groundwater in the diesel generator area using Method NWTPH-G is uncertain. Because of this uncertainty, a TPH cleanup level for soil was developed using the fractionated composition of petroleum hydrocarbons for two soil samples collected from the diesel generator area during a post-remedial action investigation (see Section 7.0). The fractionated composition for these soil samples was determined using volatile petroleum hydrocarbon (VPH) and extractable petroleum hydrocarbon (EPH) analytical methods. MTCA provides two methods for determining TPH cleanup levels based on a fractionated composition for petroleum hydrocarbons, Method B and Method C. Method B is used for unrestricted site uses and Method C is used for industrial site uses. Although the BSC property, which includes the former diesel generator and AST area, meets the requirements for industrial properties as defined under WAC 173-340-200 and will likely continue to be used for industrial purposes, Method B was used to develop cleanup levels to limit restrictions on future use(s) of the property.

The MTCA Method B soil cleanup level for TPH protective of human direct contact was developed by calculating a TPH concentration for each of the two soil samples (DP-24a-S-6-7 and DP-24a-S-9-10) that, based on the fractionated composition of petroleum hydrocarbons in each sample, had a non-carcinogenic hazard index less than or equal to 1 and a carcinogenic risk of less than or equal to 1×10^{-6} , and selecting the lowest concentration as the cleanup level. The calculations for each sample were performed using Ecology's TPH worksheet (MTCA TPH 11.1). For sample DP-24a-S-6-7, the calculated TPH concentration was 1,400 mg/kg and for sample DP-24a-S-9-10 the calculated TPH concentration was 2,400 mg/kg; therefore, the 1,400 mg/kg concentration was selected as the TPH cleanup level protective of direct contact for soil in the diesel generator area. Documentation for the Method B calculations is presented in Appendix C.

Soil cleanup levels protective of groundwater were not developed because it can be demonstrated empirically that the concentrations of petroleum hydrocarbons present in soil are not causing TPH concentrations in groundwater that are greater than the screening levels. Requirements for an empirical demonstration are listed in WAC 173-340-747(9)(b) and consist of the following:

- Measured contaminant concentrations in groundwater must be less than or equal to the groundwater cleanup level.
- Sufficient time must have elapsed for migration of the hazardous substance from soil to groundwater to have occurred.
- Characteristics of the site that would impact migration of contaminants to groundwater must be representative of future site conditions.

As described in Section 3.2, measured petroleum hydrocarbon concentrations in groundwater samples collected during the 2010 Phase II ESA were below the groundwater screening levels and, as described in Section 7.0, measured petroleum hydrocarbon concentrations in groundwater samples collected during supplemental investigations were below the groundwater cleanup levels described in Section 4.2.1; therefore, the first MTCA requirement has been met. Sufficient time has elapsed for the petroleum hydrocarbons to have impacted groundwater. As described in Section 2.1, the known releases of petroleum hydrocarbons in the diesel generator and AST area occurred more than 11 years ago (in 2000), which is expected to be adequate time for the contaminants to have impacted the groundwater; therefore, the second MTCA requirement above is met. The BSC property use is likely to remain industrial; therefore, the current characteristics of the diesel generator and AST area that would impact migration of contaminants to groundwater are considered to be representative of future site conditions, meeting the third MTCA requirement

4.3 POINT OF COMPLIANCE

In accordance with WAC 173-340-740(6), the point of compliance for soil was established as throughout soil to a depth of 15 ft BGS for protection of human exposure via direct contact. In accordance with WAC 173-340-720, the point of compliance for groundwater was established as throughout groundwater at the diesel generator and AST area.

4.4 OTHER REQUIREMENTS

In addition to the cleanup level regulations cited in Section 4.2 other local, state, and federal requirements that were, or potentially were, applicable or relevant and appropriate requirements to the action included the State Dangerous Waste Regulations (Chapter 173-303 WAC).

5.0 EVALUATION OF ALTERNATIVE REMEDIAL ACTIONS/RATIONALE FOR SELECTED REMEDIAL ACTION

This section presents a brief summary of the various alternatives evaluated for remediation of the petroleum hydrocarbons in soil at concentrations above the applicable cleanup levels in the diesel generator and AST area.

5.1 EVALUATION OF ALTERNATIVES

Potential remedial action alternatives that are consistent with future use of the diesel generator and AST area and the BSC include excavation/removal of contaminated soil and onsite treatment, excavation/removal of contaminated soil and offsite disposal, and no action. A brief evaluation of these alternatives with respect to implementability, protectiveness of human health and the environment, permanence, need for institution controls, and long-term monitoring/maintenance is provided below:

- **Excavation/Removal and Onsite Treatment.** This alternative is protective of human health and the environment, is permanent, has long-term effectiveness, and does not require long-term monitoring or institutional controls. However, the approach was not feasible due to seasonal weather conditions, potential local air permitting issues, and the timing for the future use of the property.
- **Excavation and Removal.** This alternative is consistent with the planned future use of the property, is protective of human health and the environment, is permanent, has long-term effectiveness, and does not require long-term monitoring or institutional controls. Due to the nature of the contaminants and the limited depth and areal extent of impact, this alternative is an appropriate and practicable alternative.
- **No Action.** This alternative would be protective of human health and the environment in the short term, as the area of contaminated soil is undeveloped and the data indicate that petroleum hydrocarbon concentrations are below the cleanup levels in groundwater downgradient of the contaminated soil area. However, this alternative is not consistent with the future use of the BSC, because long-term monitoring would be required to confirm that petroleum hydrocarbons are not migrating from the diesel generator and AST area, and institutional controls would be needed to ensure that the area of contaminated soil is not disturbed.

The remedial action selected for the diesel generator and AST area was excavation and removal of the soil containing petroleum hydrocarbons at concentrations greater than the soil cleanup levels. The remedial action included offsite disposal of the excavated soil and follow-up compliance groundwater monitoring to document the effectiveness of the source removal action and attainment of the cleanup levels. This remedial action was selected over the other alternatives primarily because the selected action is the only alternative that effectively and permanently protects human health and the environment and can be implemented within the climate, permitting, and site-use constraints for the property.

6.0 REMEDIAL ACTION TASKS

The remedial action implemented at the former diesel generator and AST area included excavation and offsite disposal of soil with petroleum hydrocarbon concentrations greater than the soil cleanup levels (described in Section 4.2.2). The remedial action tasks described below were conducted for Boeing by Glacier Environmental (contractor) and its subcontractors with oversight by Landau Associates personnel. Glacier Environmental conducted the soil excavation work. Landau Associates collected soil samples for field screening to direct the excavation efforts and confirmation samples from the final limits of the excavation to document the effectiveness of the cleanup.

6.1 SITE PREPARATION ACTIVITIES

Various activities that supported the remedial action were conducted prior to the soil excavation, including mobilization by the excavation contractor and subsurface utility locating and marking.

6.2 SOIL EXCAVATION

The soil excavation activities were conducted in November 2010. Clean overburden from the entire excavation area was removed to a depth of approximately 2.5 to 3 ft BGS before beginning the removal of the contaminated soil.

During excavation of contaminated soil, field-screening samples were collected periodically during the excavation to guide the limits of the excavation. Field screening included photoionization detector (PID) measurements and visual examination of the soil for discoloration and the presence of sheen or non-aqueous phase liquid. The presence of any odor was also documented. Excavation of the contaminated soil continued in areas where field screening indicated the presence of petroleum hydrocarbon-impacted soil. If no sheen was observed and PID readings were below 20 parts per million, the excavation was discontinued and confirmation soil samples were collected. The lateral limits of the soil excavation are shown on Figure 4. The excavation extended vertically to a depth of approximately 10 ft BGS on the west end, to a depth of 5 ft BGS on the east end, and a depth of approximately 15 ft BGS in the central portion.

During excavation, groundwater seepage was encountered at approximately 10 to 12 ft BGS and was observed to contain a petroleum-like sheen. Pooled groundwater in the excavation was periodically removed from the excavation using a vacuum truck to allow continued excavation of impacted soils. Pooled groundwater was pumped from the excavation by PSC of Kent, Washington, and disposed of at PSC's waste facility in Kent, Washington.

6.3 SOIL CONFIRMATION SAMPLES

Nine confirmation soil samples, including four bottom and five sidewall samples, were collected to document that the extent of excavation was sufficient and that soil with concentrations of petroleum hydrocarbons greater than the cleanup levels had been removed. Samples were collected from locations evenly distributed across the base of the excavation and at least one sample was collected from each sidewall. The locations of the confirmation samples are shown on Figure 4. The confirmation samples were submitted to Analytical Resources Inc. of Tukwila, Washington for analysis of TPH-G by Ecology Method NWTPH-G and TPH-D and TPH-O by Ecology Method NWTPH-Dx. The analytical results for the confirmation soil samples are summarized in Table 3 and as follows:

- TPH-G was detected in samples GEN-BOT-E (31 mg/kg), GEN-SW-NE (34 mg/kg), and GEN-SW-S (29 mg/kg) at concentrations below the cleanup level (100 mg/kg). TPH-G was not detected in any of the other confirmation samples at concentrations above the laboratory reporting limit.
- TPH-D was detected in GEN-SW-NE (50 mg/kg) at a concentration below the cleanup level (1,000 mg/kg). TPH-D was not detected in any of the other confirmation samples at concentrations above the laboratory reporting limit.
- TPH-O was not detected in any of the samples at concentrations above the laboratory reporting limits.

Copies of laboratory analytical reports are provided on CD-ROM in Appendix D.

6.4 SOIL STOCKPILING AND DISPOSAL

During the remedial action, 1,013 tons of soil were excavated and disposed of off site. Excavated soil was placed directly into trucks or temporarily stockpiled on plastic sheeting. Stockpiled soil was transferred to trucks as they became available. The excavated soil was transported to Columbia Ridge Landfill for disposal. Copies of the transportation bills of lading are included in Appendix E.

6.5 BACKFILLING

After the excavation work was completed, the contractor backfilled the excavation to approximately 7 ft BGS with approximately 225 tons of pea gravel, as directed by Boeing. Approximately 450 pounds of ORC powder was added to the pea gravel backfill in layers to aid in degradation of any remaining petroleum hydrocarbons. The clean overburden removed from the project area prior to removal of the contaminated soil was not used for backfill because the material did not meet geotechnical requirements for the planned pavement project. The remaining approximately 7 ft of the excavation was left to be backfilled and compacted by a different contractor (not under the direction of Landau Associates) in preparation for construction of a paved truck turnaround area associated with the Building 18-25 renovation project (Section 1.1).

7.0 POST-REMEDIAL ACTION INVESTIGATIONS

In January 2011, following completion of the remedial action in the diesel generator and AST area, a supplemental Phase II ESA was conducted in the western portion of the BSC as part of ongoing due diligence activities to address data gaps outlined in the 2010 Phase II ESA for the BSC. The supplemental investigation included soil and groundwater sampling in the vicinity of the remedial action area to further evaluate and document soil and groundwater conditions in the area following the remedial action. In May 2011, further follow-up investigation was conducted in the area that consisted of collection and analysis of soil samples. The activities associated with the post-remedial action investigations and an evaluation of the analytical results compared to the cleanup levels developed in Section 4.0 are discussed below.

7.1 FIELD ACTIVITIES

On January 26, 2011, Cascade Drilling Inc. advanced five direct-push borings (DP-22 through DP-25b) in the former diesel generator and AST area (shown on Figure 5) to allow the collection of soil and groundwater samples. Borings were advanced to a depth of 10 ft BGS. Boring location DP-25 encountered backfill placed during the diesel generator area remedial action, so an additional boring was completed approximately 15 ft to the west (DP-25b; Figure 5) and samples collected from DP-25 were not submitted for laboratory analysis. Because boring DP-25b replaced boring DP-25, boring DP-25 is not included on Figures 5, or discussed further in this report. Boring logs for DP-22 through DP-25b are presented in Appendix F.

Based on the evidence of the potential presence of petroleum hydrocarbons during drilling at borings DP-24 and DP-25b, two soil samples were collected from boring DP-24 (depth intervals of 6 to 7 ft BGS and 9 to 10 ft BGS) and one soil sample was collected from boring DP-25b (depth interval 4.5 to 5 ft BGS) and submitted for laboratory analysis. No evidence of potential petroleum hydrocarbons was observed in the remaining borings; therefore, soil samples from these borings were not submitted for laboratory analysis.

Groundwater samples were collected from all four borings and submitted for laboratory analysis. The soil and groundwater samples were all analyzed for TPH-G using Ecology Method NWTPH-G and all but one of the soil samples were also analyzed for TPH-D and TPH-O using Ecology Method NWTPH-Dx. The groundwater samples were also analyzed for arsenic by Method 200.8 as part of the overall Supplemental Phase II ESA for the BSC.

On May 20, 2011, Cascade Drilling advanced four direct-push borings, one located immediately adjacent to the Supplemental Phase II ESA boring DP-24 and one west, east, and south of boring DP-24;

the borings were identified as DP-24 a, DP-24 b, DP-24c, and DP-24d, respectively, and are shown on Figure 5.). Because the laboratory reported that the TPH-G result for the sample collected in January 2011 at a depth interval of 6 to 7 ft BGS at DP-24 did not match an identifiable gasoline pattern, additional soil samples were collected at this location and analyzed for petroleum hydrocarbon fractions using VPH and EPH analytical methods. Two soil samples were collected from boring DP-24a and analyzed for petroleum hydrocarbon fractions using VPH and EPH analytical methods. One of the samples submitted for analysis was collected from the same depth interval (6 to 7 ft BGS) as a sample collected at DP-24 where evidence of petroleum hydrocarbons was observed during sample collection and where an elevated TPH-G concentration was detected. The two soil samples were also analyzed for petroleum hydrocarbons using Ecology Methods NWTPH-G and NWTPH-Dx, and for benzene, toluene, ethylbenzene, xylenes, gasoline additives (methyl tert-butyl ether, ethylene dichloride, ethylene dibromide, and lead), VOCs, and polycyclic aromatic hydrocarbons (PAHs). A third soil sample collected at DP-24a was archived at the laboratory. Two soil samples were collected from borings DP-24b, DP-24c, and DP-24d and also archived at the laboratory. In addition to the soil samples, three groundwater samples were collected; one each at DP-24b, DP-24c, and DP-24d and also archived at the laboratory pending the soil analytical results.

7.2 ANALYTICAL RESULTS

To evaluate the effectiveness of the remedial action in the diesel generator area, the analytical results for the COCs for the post-remedial investigation soil and groundwater samples were compared to the cleanup levels developed in Section 4.0. The comparisons are presented in Tables 4 (soil) and 5 (groundwater). The results of the comparison are discussed below. Analytical results for the post-remedial action investigation soil and groundwater samples for analytes that are not identified as COCs are provided in Appendix G.

7.2.1 SOIL

Petroleum hydrocarbons were detected in each of the post-remedial action investigation soil samples submitted for laboratory analysis (samples DP-24-S-6-7, DP-24-S-8-9, DP-25b-S-4.5-5.5, DP-24a-S-6-7, and DP-24s-S-9-10). Analytical results for each sample using Methods NWTPH-G and NWTPH-Dx were summed to determine a total petroleum hydrocarbon (TPH) concentration and then compared to the TPH cleanup level of 1,400 mg/kg. The TPH concentrations ranged from 23 mg/kg to 797 mg/kg, which are all below the TPH cleanup level. Similarly, the VPH and EPH results for samples DP-24a-S-6-7, and DP-24s-S-9-10 were used to calculate a TPH concentration for these samples. The TPH concentrations were calculated using Ecology's TPH worksheet (MTCA TPH 11.1) and are

summarized in Table 4. Documentation for the TPH calculations is provided in Appendix C. The calculated TPH concentrations for DP-24a-S-6-7 and DP-24s-S-9-10 were 70 mg/kg and 670 mg/kg, respectively, which are both below the TPH cleanup level.

In addition to the COCs, soil samples DP-24a-S-6-7 and DP-24s-S-9-10 were also analyzed for lead, VOCs, and PAHs. The soil analytical results were compared to screening levels protective of direct human contact. The results for the previous groundwater sample collected from this area did not indicate concentrations in groundwater greater than the screening levels protective of human health and the environment. As shown in Table G -1 (Appendix G), lead, VOCs (including benzene), and PAHs were detected in the soil samples but at concentrations below the direct human contact screening levels.

7.2.2 GROUNDWATER

Petroleum hydrocarbons were detected in each of the four post-remedial groundwater samples (KC-DP-22, KC-DP-23, KC-DP-24, and KC-DP-25b), but none of the detected concentrations were greater than the groundwater cleanup levels as summarized below:

- TPH-G was detected in groundwater at DP-24 and DP-25b at concentrations of 0.35 mg/L and 0.38 mg/L compared to the TPH-G cleanup level of 0.8 mg/L. TPH-G was not detected in either of the other two groundwater samples analyzed at concentrations greater than the laboratory reporting limit.
- TPH-D was detected in groundwater at DP-25b (0.20 mg/L) at a concentration below the cleanup level (0.5 mg/L). TPH-D was not detected in any of the other three groundwater samples analyzed at concentrations greater than the laboratory reporting limit.
- TPH-O was not detected in any of the four groundwater samples analyzed at concentrations greater than the laboratory reporting limits.

In addition to the COCs, the groundwater samples were also analyzed for dissolved arsenic. The results were compared to the MTCA Method B screening level protective of drinking water. As shown in Table ZZ-2 (Appendix G), dissolved arsenic was detected above the screening level in three of the groundwater samples. As discussed previously in Section 3.2, the elevated arsenic concentrations in groundwater likely reflect area-wide arsenic concentrations in groundwater and are not a result of property-specific sources.

8.0 SUMMARY AND CONCLUSIONS

The remedial action conducted at the diesel generator and AST area in November 2010 included excavation and offsite disposal of petroleum hydrocarbon-impacted soil, confirmation soil sampling and analysis, and follow-up soil and groundwater sampling and analysis. The results of the completed remedial action activities and subsequent investigations are as follows:

- A total of 1,013 tons of petroleum hydrocarbon-impacted soil were excavated from the diesel generator and AST area and transported off site to Columbia Ridge Landfill for disposal.
- Results for nine soil confirmation samples collected from the base and sidewalls of the remedial action excavation and for five soil samples collected in the vicinity of the remedial action area demonstrate compliance with the soil cleanup levels for the diesel generator and AST area COCs (TPH-G, TPH-D, and TPH-O). TPH concentrations for each of the 14 soil samples were below the MTCA Method B soil cleanup level for unrestricted land uses. TPH results for each of the samples and the sample locations are shown on Figure 6.
- Results for four post-remedial action groundwater samples collected within the diesel generator and AST area and adjacent to the remedial action area excavation demonstrate compliance with the groundwater cleanup levels for the diesel generator and AST area COCs. TPH-G, TPH-D, and TPH-O concentrations for each of the four groundwater samples were well below groundwater cleanup levels. TPH-G, TPH-D, and TPH-O concentrations for the four groundwater samples and the sample locations are shown on Figure 7.

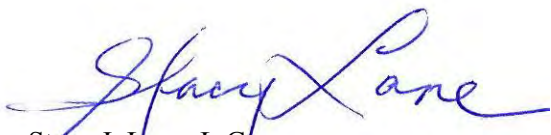
Based on the soil confirmation sample and post-remedial action sample data, all impacted soil resulting from releases from the former generator and associated AST has been removed and disposed off site. TPH concentrations in soil and groundwater in the diesel generator and AST area are below the cleanup levels at the points of compliance; therefore, no institutional controls are required for the diesel generator and AST area. Based on these results, the remedial action is complete and Boeing requests that Ecology issue an NFA determination for the cleanup.

9.0 USE OF THIS REPORT


This independent remedial action report has been prepared for the exclusive use of The Boeing Company for specific application to the former diesel generator and associated AST KSA-46. 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.

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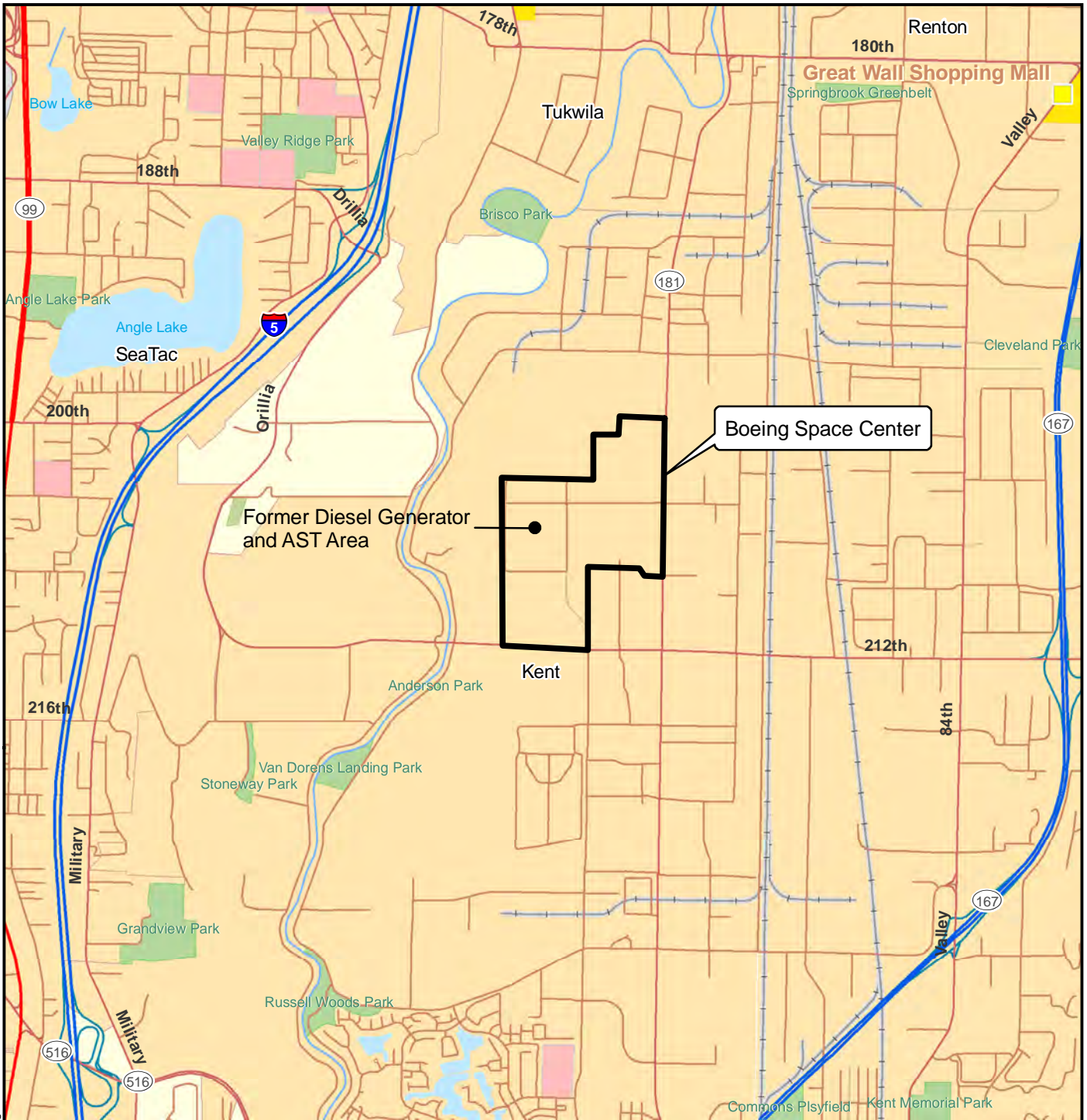


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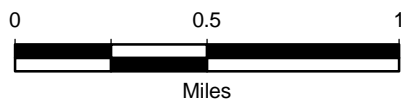
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10.0 REFERENCES

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Data Source: ESRI 2008



Boeing Space Center
Kent, Washington

Vicinity Map

Figure
1

Y:\Projects\025195\Mapdocs\Diesel Generator\IRAP\Fig2-FormerDieselGeneratorASTLocation.mxd 6/24/2011 NAD 1983 StatePlane Washington North FIPS 4601 Feet



Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Scale in Feet

Data Source: Google Earth Pro Image

Boeing Space Center
Kent, Washington

**Former Diesel Generator and
Above Storage Tank Area Location**

Figure
2



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Legend

- Pre-Remedial Action Sample Location

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Data Source: Google Earth Image; King County GIS



Boeing Space Center
Kent, Washington



**Pre-Remedial Action
Sampling Location**

Figure
3

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Legend

-  Excavation Limits
-  Confirmation Soil Sample Location

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



Data Source: Google Earth Pro Image



Boeing Space Center
Kent, Washington




**Excavation Limits and
Confirmation Soil
Sampling Locations**

Figure
4

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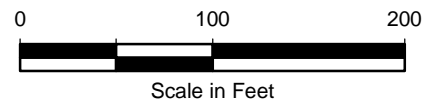
Legend

-  Post-Remedial Action Soil Boring Location
-  Post-Remedial Action Soil Boring Sample Location with No Soil or Groundwater Sample Submitted for Laboratory Analysis
-  Excavation Limits

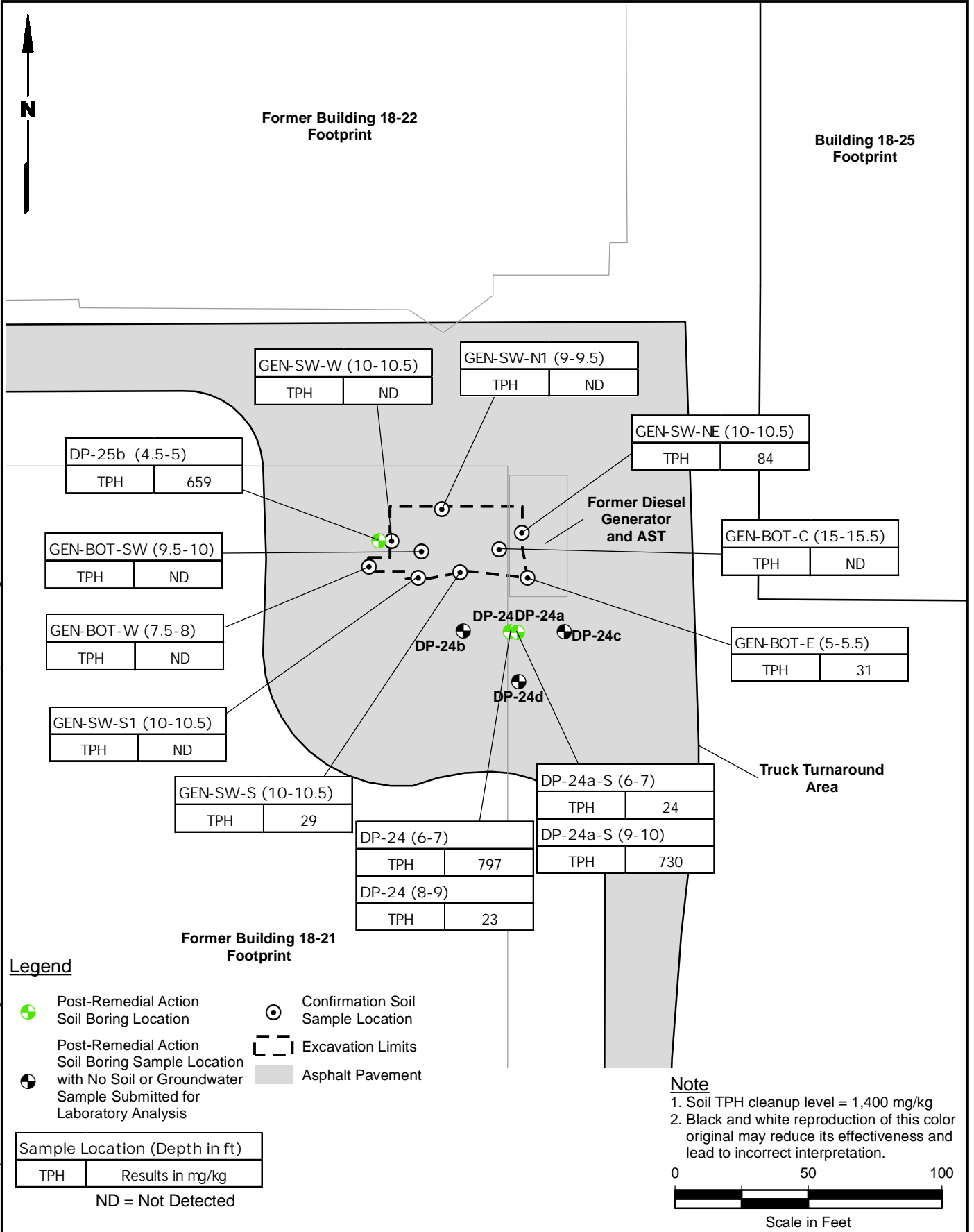
Data Source: Google Earth Pro Image

Note

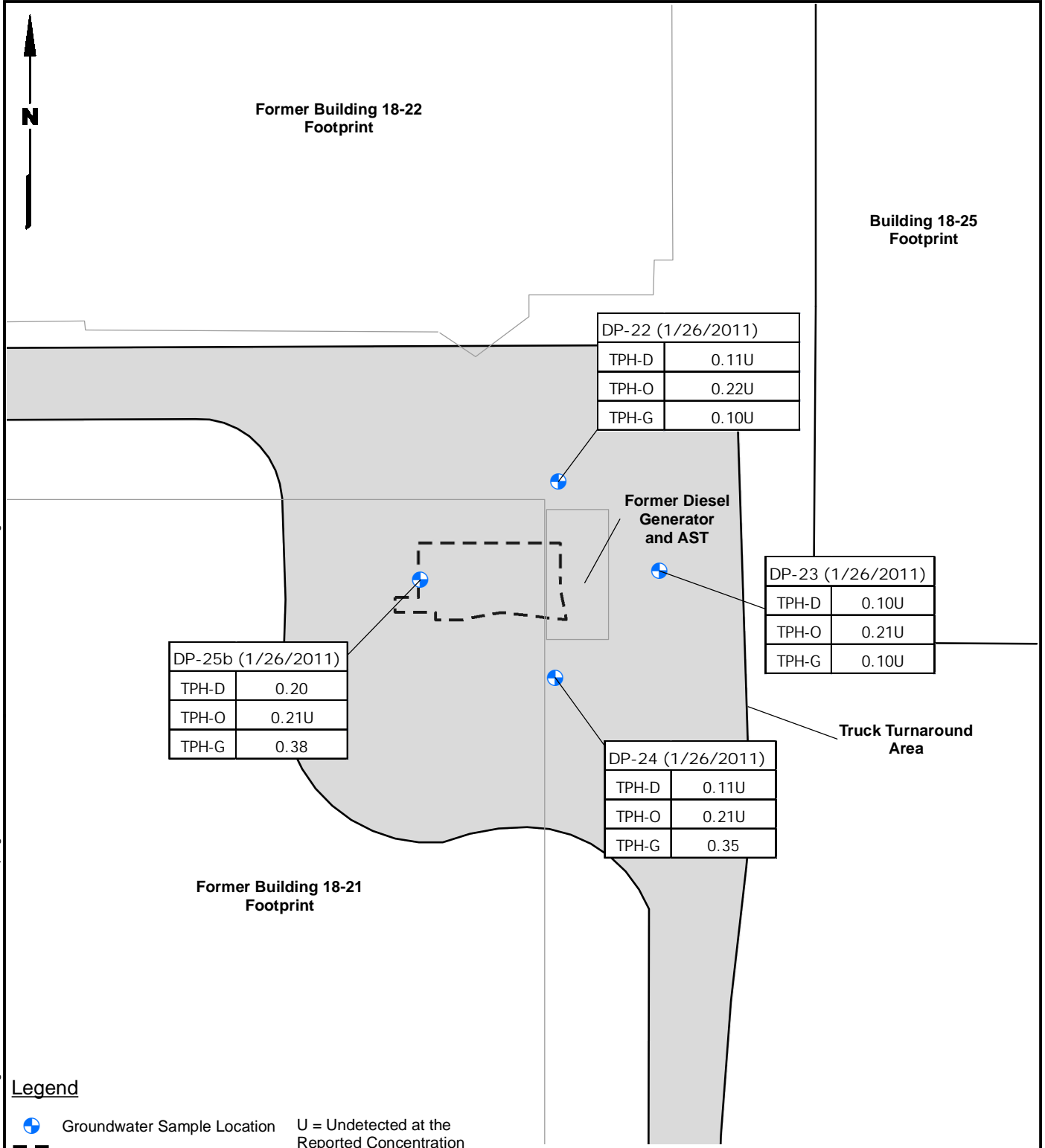
1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



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Y:\Projects\025195\Mapdocs\Diesel Generator IRAP\Fig7-PostRemedialActionGroundwaterSamplingTPHResults.mxd 6/27/2011 NAD 1983 StatePlane Washington North FIPS 4601 Feet



Legend

- Groundwater Sample Location
- Excavation Limits
- Asphalt Pavement
- U = Undetected at the Reported Concentration

Sample Location	
TPH-D	Results in mg/L
TPH-O	
TPH-G	

Note

- Groundwater TPH Cleanup Levels:
0.5 mg/L (TPH-D and TPH-O)
0.8 mg/L (TPH-G)
- Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.



TABLE 1
PRE-REMEDIAL ACTION SOIL ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Soil Screening Levels (a)	KSC-DP-3 S-7-8 RG52F 7/29/2010
SEMIVOLATILES (µg/kg)		
Method SW8270D		
Phenol		98 U
Bis-(2-Chloroethyl) Ether		98 U
2-Chlorophenol		98 U
1,3-Dichlorobenzene		98 U
1,4-Dichlorobenzene		98 U
Benzyl Alcohol		490 U
1,2-Dichlorobenzene		98 U
2-Methylphenol		98 U
2,2'-Oxybis(1-Chloropropane)		98 U
4-Methylphenol		98 U
N-Nitroso-Di-N-Propylamine		490 U
Hexachloroethane		98 U
Nitrobenzene		98 U
Isophorone		98 U
2-Nitrophenol		98 U
2,4-Dimethylphenol		98 U
Benzoic Acid		980 U
bis(2-Chloroethoxy) Methane		98 U
2,4-Dichlorophenol		490 U
1,2,4-Trichlorobenzene		98 U
Naphthalene	4,500	660
4-Chloroaniline		490 U
Hexachlorobutadiene		98 U
4-Chloro-3-methylphenol		490 U
2-Methylnaphthalene	320,000	1,600
Hexachlorocyclopentadiene		490 U
2,4,6-Trichlorophenol		490 U
2,4,5-Trichlorophenol		490 U
2-Chloronaphthalene		98 U
2-Nitroaniline		490 U
Dimethylphthalate		98 U
Acenaphthylene		98 U
3-Nitroaniline		490 U
Acenaphthene		98 U
2,4-Dinitrophenol		980 UJ
4-Nitrophenol		490 UJ
Dibenzofuran	160,000	330
2,6-Dinitrotoluene		490 U
2,4-Dinitrotoluene		490 U
Diethylphthalate		98 U
4-Chlorophenyl-phenylether		98 U
Fluorene	101,000	840
4-Nitroaniline		490 U
4,6-Dinitro-2-Methylphenol		980 U
N-Nitrosodiphenylamine		98 U
4-Bromophenyl-phenylether		98 U
Hexachlorobenzene		98 U
Pentachlorophenol		490 U
Phenanthrene	--	1,500
Carbazole		98 U
Anthracene		98 U
Di-n-Butylphthalate		98 U
Fluoranthene		98 U
Pyrene	650,000	130
Butylbenzylphthalate		98 U
3,3'-Dichlorobenzidine		490 U
Benzo(a)anthracene		98 U
bis(2-Ethylhexyl)phthalate	71,000	98 U
Chrysene		98 U
Di-n-Octyl phthalate		98 U
Benzo(b)fluoranthene		98 U
Benzo(k)fluoranthene		98 U
Benzo(a)pyrene		98 U
Indeno(1,2,3-cd)pyrene		98 U
Dibenz(a,h)anthracene		98 U

TABLE 1
PRE-REMEDIAL ACTION SOIL ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Soil Screening Levels (a)	KSC-DP-3 S-7-8 RG52F 7/29/2010
Benzo(g,h,i)perylene		98 U
1-Methylnaphthalene	--	3,400
cPAH TEQ		98 U
VOLATILES (µg/kg)		
Method SW8260C		
Chloromethane		1.0 UJ
Bromomethane		1.0 UJ
Vinyl Chloride	1.8	1.0 UJ
Chloroethane		1.0 UJ
Methylene Chloride	22	1.9 UJ
Acetone	3,200	41 J
Carbon Disulfide	5,700	1.6 J
1,1-Dichloroethene		1.0 UJ
1,1-Dichloroethane		1.0 UJ
trans-1,2-Dichloroethene		1.0 UJ
cis-1,2-Dichloroethene	350	1.0 UJ
Chloroform		1.0 UJ
1,2-Dichloroethane		1.0 UJ
2-Butanone	20,000	4.8 UJ
1,1,1-Trichloroethane		1.0 UJ
Carbon Tetrachloride		1.0 UJ
Vinyl Acetate		4.8 UJ
Bromodichloromethane		1.0 UJ
1,2-Dichloropropane		1.0 UJ
cis-1,3-Dichloropropene		1.0 UJ
Trichloroethene	3	1.0 UJ
Dibromochloromethane		1.0 UJ
1,1,2-Trichloroethane		1.0 UJ
Benzene	28	1.0 UJ
trans-1,3-Dichloropropene		1.0 UJ
2-Chloroethylvinylether		4.8 UJ
Bromoform		1.0 UJ
4-Methyl-2-Pentanone (MIBK)		4.8 UJ
2-Hexanone		4.8 UJ
Tetrachloroethene		1.0 UJ
1,1,2,2-Tetrachloroethane		1.0 UJ
Toluene	4,700	1.0 UJ
Chlorobenzene		1.0 UJ
Ethylbenzene	6,000	5.8 J
Styrene		1.0 UJ
Trichlorofluoromethane	34,000	1.0 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane		1.9 UJ
m, p-Xylene		8.9 J
o-Xylene	15,000	5.0 J
Total Xylenes	15,000	13.9 J
1,2-Dichlorobenzene		1.0 UJ
1,3-Dichlorobenzene		1.0 UJ
1,4-Dichlorobenzene		1.0 UJ
Acrolein		48 UJ
Methyl Iodide		1.0 UJ
Bromoethane		1.9 UJ
Acrylonitrile		4.8 UJ
1,1-Dichloropropene		1.0 UJ
Dibromomethane		1.0 UJ
1,1,1,2-Tetrachloroethane		1.0 UJ
1,2-Dibromo-3-chloropropane		4.8 UJ
1,2,3-Trichloropropane		1.9 UJ
trans-1,4-Dichloro-2-butene		4.8 UJ
1,3,5-Trimethylbenzene	4,000,000	65 J
1,2,4-Trimethylbenzene	4,000,000	2,200 J
Hexachlorobutadiene		4.8 UJ
Ethylene Dibromide		1.0 UJ
Bromochloromethane		1.0 UJ
2,2-Dichloropropane		1.0 UJ
1,3-Dichloropropane		1.0 UJ
Isopropylbenzene	--	9.0 J

TABLE 1
PRE-REMEDIAL ACTION SOIL ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Soil Screening Levels (a)	KSC-DP-3 S-7-8 RG52F 7/29/2010
n-Propylbenzene	--	23 J
Bromobenzene		1.0 UJ
2-Chlorotoluene		1.0 UJ
4-Chlorotoluene		1.0 UJ
tert-Butylbenzene		1.0 UJ
sec-Butylbenzene	--	24 J
4-Isopropyltoluene	--	30 J
n-Butylbenzene	--	130 JM
1,2,4-Trichlorobenzene		4.8 UJ
Naphthalene	4,500	1,200 J
1,2,3-Trichlorobenzene		4.8 UJ
TOTAL METALS (mg/kg)		
Method EPA 200.8		
Arsenic	7	2.2
Cadmium		0.2 U
Chromium	120,000	26
Copper	260	20.1
Lead	250 (b)	4
Mercury	2.1	0.03
Zinc	6,000	42
TOTAL PETROLEUM HYDROCARBONS (mg/kg)		
NWTPH-Dx		
Diesel Range Organics	2,000 (b)	2,000
Lube Oil	2,000 (b)	67
NWTPH-Gx		
Gasoline Range Organics	100 (b)	890
CONVENTIONALS		
Hexavalent Chrome (mg/kg) Method SM3500CrD	18	0.447 U
Total Solids (%) Method EPA 160.3		86.80
PCBs (µg/kg)		
Method SW8082		
Aroclor 1016		31 U
Aroclor 1242		31 U
Aroclor 1248		31 U
Aroclor 1254		31 U
Aroclor 1260		31 U
Aroclor 1221		31 U
Aroclor 1232		31 U
Total PCBs		31 U

U = Indicates the compound was not detected 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.

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

M = Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.

Bold = Detected compound.

Box = Indicates detected concentration exceeds screening level.

(a) Screening levels are MTCA Method B protective direct human contact and groundwater as drinking water, unless otherwise noted.

(b) MTCA Method A screening level.

TABLE 2
PRE-REMEDIAL ACTION GROUNDWATER ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Groundwater Screening Levels (a)	KSC-DP-3 RG63C/RI68C 7/30/2010
SEMIVOLATILES (µg/L)		
Method SW8270D		
Phenol		1.0 U
Bis-(2-Chloroethyl) Ether		1.0 U
2-Chlorophenol		1.0 U
1,3-Dichlorobenzene		1.0 U
1,4-Dichlorobenzene		1.0 U
Benzyl Alcohol		5.0 U
1,2-Dichlorobenzene		1.0 U
2-Methylphenol		1.0 U
2,2'-Oxybis(1-Chloropropane)		1.0 U
4-Methylphenol		1.0 U
N-Nitroso-Di-N-Propylamine		1.0 U
Hexachloroethane		1.0 U
Nitrobenzene		1.0 U
Isophorone		1.0 U
2-Nitrophenol		5.0 U
2,4-Dimethylphenol		1.0 U
Benzoic Acid		10 U
bis(2-Chloroethoxy) Methane		1.0 U
2,4-Dichlorophenol		5.0 U
1,2,4-Trichlorobenzene		1.0 U
Naphthalene		1.0 U
4-Chloroaniline		5.0 U
Hexachlorobutadiene		1.0 U
4-Chloro-3-methylphenol		5.0 U
2-Methylnaphthalene	32	1.3
Hexachlorocyclopentadiene		5.0 U
2,4,6-Trichlorophenol		5.0 U
2,4,5-Trichlorophenol		5.0 U
2-Chloronaphthalene		1.0 U
2-Nitroaniline		5.0 U
Dimethylphthalate		1.0 U
Acenaphthylene		1.0 U
3-Nitroaniline		5.0 U
Acenaphthene		1.0 U
2,4-Dinitrophenol		10 UJ
4-Nitrophenol		5.0 UJ
Dibenzofuran		1.0 U
2,6-Dinitrotoluene		5.0 U
2,4-Dinitrotoluene		5.0 U
Diethylphthalate		1.0 U
4-Chlorophenyl-phenylether		1.0 U
Fluorene		1.0 U
4-Nitroaniline		5.0 U
4,6-Dinitro-2-Methylphenol		10 U
N-Nitrosodiphenylamine		5.0 UJ
4-Bromophenyl-phenylether		1.0 U
Hexachlorobenzene		1.0 U
Pentachlorophenol		5.0 U
Phenanthrene		1.0 U
Carbazole		1.0 U
Anthracene		1.0 U
Di-n-Butylphthalate		1.0 U
Fluoranthene		1.0 U
Pyrene		1.0 U
Butylbenzylphthalate		1.0 U
3,3'-Dichlorobenzidine		5.0 U
Benzo(a)anthracene		1.0 U
bis(2-Ethylhexyl)phthalate		1.0 U
Chrysene		1.0 U
Di-n-Octyl phthalate		1.0 U
Benzo(b)fluoranthene		1.0 U
Benzo(k)fluoranthene		1.0 U
Benzo(a)pyrene		1.0 U
Indeno(1,2,3-cd)pyrene		1.0 U
Dibenz(a,h)anthracene		1.0 U
Benzo(g,h,i)perylene		1.0 U

TABLE 2
PRE-REMEDIAL ACTION GROUNDWATER ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Groundwater Screening Levels (a)	KSC-DP-3 RG63C/RI68C 7/30/2010
1-Methylnaphthalene	160 (b,c)	3.1
cPAH TEQ		1.0 U
VOLATILES (µg/L)		
Method SW8260C		
Chloromethane		0.5 U
Bromomethane		1.0 U
Vinyl Chloride	0.29	0.2
Chloroethane		0.2 U
Methylene Chloride		0.5 U
Acetone	800	5.0 U
Carbon Disulfide		0.2 U
1,1-Dichloroethene		0.2 U
1,1-Dichloroethane		0.2 U
trans-1,2-Dichloroethene	100	0.2 U
cis-1,2-Dichloroethene	70	0.2 U
Chloroform		0.2 U
1,2-Dichloroethane		0.2 U
2-Butanone		5.0 U
1,1,1-Trichloroethane		0.2 U
Carbon Tetrachloride		0.2 U
Vinyl Acetate		1.0 U
Bromodichloromethane		0.2 U
1,2-Dichloropropane		0.2 U
cis-1,3-Dichloropropene		0.2 U
Trichloroethene		0.2 U
Dibromochloromethane		0.2 U
1,1,2-Trichloroethane		0.2 U
Benzene		0.2 U
trans-1,3-Dichloropropene		0.2 U
2-Chloroethylvinylether		1.0 U
Bromoform		0.2 U
4-Methyl-2-Pentanone (MIBK)		5.0 U
2-Hexanone		5.0 U
Tetrachloroethene		0.2 U
1,1,2,2-Tetrachloroethane		0.2 U
Toluene	640	0.2 U
Chlorobenzene		0.2 U
Ethylbenzene		0.2 U
Styrene		0.2 U
Trichlorofluoromethane		0.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane		0.2 U
m, p-Xylene		0.4 U
o-Xylene		0.2 U
Total Xylenes		0.4 U
1,2-Dichlorobenzene		0.2 U
1,3-Dichlorobenzene		0.2 U
1,4-Dichlorobenzene		0.2 U
Acrolein		5.0 U
Methyl Iodide		1.0 U
Bromoethane		0.2 U
Acrylonitrile		1.0 U
1,1-Dichloropropene		0.2 U
Dibromomethane		0.2 U
1,1,1,2-Tetrachloroethane		0.2 U
1,2-Dibromo-3-chloropropane		0.5 U
1,2,3-Trichloropropane		0.5 U
trans-1,4-Dichloro-2-butene		1.0 U
1,3,5-Trimethylbenzene	400	0.5
1,2,4-Trimethylbenzene	40	2.6
Hexachlorobutadiene		0.5 U
Ethylene Dibromide		0.2 U
Bromochloromethane		0.2 U
2,2-Dichloropropane		0.2 U
1,3-Dichloropropane		0.2 U
Isopropylbenzene		0.2 U
n-Propylbenzene	--	0.3
Bromobenzene		0.2 U

TABLE 2
PRE-REMEDIAL ACTION GROUNDWATER ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Groundwater Screening Levels (a)	KSC-DP-3 RG63C/RI68C 7/30/2010
2-Chlorotoluene		0.2 U
4-Chlorotoluene		0.2 U
tert-Butylbenzene		0.2 U
sec-Butylbenzene	--	0.2
4-Isopropyltoluene	--	0.3
n-Butylbenzene	--	0.6
1,2,4-Trichlorobenzene		0.5 U
Naphthalene	160	2.1 J
1,2,3-Trichlorobenzene		0.5 U
DISSOLVED METALS (µg/L)		
Method EPA 200.8		
Arsenic	5	40.3
TOTAL PETROLEUM HYDROCARBONS (mg/L)		
NWTPH-Dx		
Diesel Range Organics	0.5 (b)	0.11
Lube Oil		0.20 U
NWTPH-Gx		
Gasoline Range Organics	1.0	0.36
Hexavalent Chrome (mg/L)		
Method SM3500CrD	0.048	0.032

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.

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

Bold = Detected compound.

Box = indicates detected concentration exceeds screening level.

(a) Screening levels are MTCA Method B protective direct human contact and groundwater as drinking water, unless otherwise noted.

(b) MTCA Method A screening level.

(c) Screening level is for total naphthalenes.

TABLE 3
SOIL CONFIRMATION ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Cleanup Levels (a)	GEN-SW-S 10.0-10.5 RV42A 11/8/2010	GEN-SW-N1 9.0-9.5 RV07A 11/4/2010	GEN-SW-NE 10-10.5 RV07C 11/4/2010	GEN-SW-W 10.0-10.5 RV18B 11/05/2010	GEN-SW-S1 10.0-10.5 RV18C 11/05/2010	GEN-BOT-W 7.5-8.0 RV18A 11/05/2010	GEN-BOT-C 15-15.5 RV07B 11/4/2010	GEN-BOT-SW 9.5-10.0 RV18D 11/05/2010	GEN-BOT-E 5.0-5.5 RU86A 11/03/2010
PETROLEUM HYDROCARBONS (mg/kg)										
NWTPH-Dx										
Diesel Range Organics	See Total Petroleum Hydrocarbons	6.9 U	6.7 U	50 J	6.8 U	6.9 U	7.1 U	6.8 U	6.9 U	6.8 U
Lube Oil	See Total Petroleum Hydrocarbons	14 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
NWTPH-Gx										
Gasoline Range Organics	See Total Petroleum Hydrocarbons	29	7.1 U	34	7.7 U	7.8 U	12 U	9.2 U	8.2 U	31
Total Petroleum Hydrocarbons	1,400	29	ND	84	ND	ND	ND	ND	ND	31

U = Indicates the compound was not detected at the reported concentration.

Bold = Detected compound.

(a) Cleanup levels are based on MTCA Method B.

TABLE 4
POST-REMEDIATION ANALYTICAL RESULTS FOR CONSTITUENTS OF CONCERN
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Cleanup Levels (a)	KSC-DP-24 S-6-7 SG42O 01/26/2011	KSC-DP-24 S-8-9 SJ32A 1/26/2011	KSC-DP-25b S-4.5-5 SG42N 01/26/2011	KSC-DP-24a-S (6-7) SX92A/SX92C 05/20/2011	KSC-DP-24a-S (9-10) SX92B/SX92D 05/20/2011
TOTAL PETROLEUM HYDROCARBONS (mg/kg)						
Diesel Range Organics	(b)	7.0	NA	560	5.9 U	230
Lube Oil	(b)	11 U	NA	43	12 U	14 U
Gasoline Range Organics	(b)	790	23 J	56	24	500
Total Petroleum Hydrocarbons	1,400	797	23	659	24	730
EXTRACTABLE PETROLEUM HYDROCARBONS (mg/kg)						
Method NWEPH	(b)					
C8-C10 Aromatics	(b)				2.4 U	2.8 U
>C10-C12 Aromatics	(b)				2.4 U	2.8 U
>C12-C16 Aromatics	(b)				10	12
>C16-C21 Aromatics	(b)				30	25
>C21-C34 Aromatics	(b)				9.9	5.2
C8-C10 Aliphatics	(b)				2.4 U	2.8 U
>C10-C12 Aliphatics	(b)				2.4 U	8.5
>C12-C16 Aliphatics	(b)				2.4 U	50
>C16-C21 Aliphatics	(b)				2.4 U	78
>C21-C34 Aliphatics	(b)				2.4 U	22
	(b)					
VOLATILE PETROLEUM HYDROCARBONS (mg/kg)						
Method NWVPH						
Benzene	(b)				1.1 U	1.9 U
Toluene	(b)				1.1 U	1.9 U
Ethylbenzene	(b)				1.1 U	1.9 U
m, p-Xylene	(b)				2.3 U	3.8 U
o-Xylene	(b)				1.1 U	1.9 U
Methyl tert-Butyl Ether	(b)				1.1 U	1.9 U
n-Pentane	(b)				1.1 U	1.9 U
n-Hexane	(b)				1.1 U	1.9 U
n-Octane	(b)				1.1 U	1.9 U
n-Decane	(b)				1.1 U	1.9 U
n-Dodecane	(b)				1.1 U	6.2
C8-C10 Aromatics	(b)				11 U	43
>C10-C12 Aromatics	(b)				11 U	190
>C12-C13 Aromatics	(b)				11 U	200
C5-C6 Aliphatics	(b)				11 U	19 U
>C6-C8 Aliphatics	(b)				11 U	19 U
>C8-C10 Aliphatics	(b)				11 U	22
>C10-C12 Aliphatics	(b)				11 U	19 U
Total Petroleum Hydrocarbons	1,400				70 (c)	670 (c)

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.

Bold = Detected compound.

(a) Calculated MTCA Method B cleanup level.

(b) Refer to total petroleum hydrocarbon cleanup level of 1,400 mg/kg.

(c) Total petroleum hydrocarbon concentration calculated using Ecology's TPH Worksheet (MTCA TPH 11.1).

TABLE 5
POST-REMEDIAL ACTION GROUNDWATER ANALYTICAL RESULTS FOR CONSTITUENTS OF CONCERN
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Cleanup Levels (a)	KSC-DP-22 SG42E 01/26/2011	KSC-DP-23 SG42F 01/26/2011	KSC-DP-24 SG42G 01/26/2011	KSC-DP-25b SG42H 01/26/2011
TOTAL PETROLEUM HYDROCARBONS (mg/L)					
NWTPH-Dx					
Diesel Range Organics	0.5	0.11 U	0.10 U	0.11 U	0.20
Lube Oil	0.5	0.22 U	0.21 U	0.21 U	0.21 U
NWTPH-Gx					
Gasoline Range Organics	0.8	0.10 U	0.10 U	0.35	0.38

U = Indicates the compound was not detected at the reported concentration.

Bold = Detected compound.

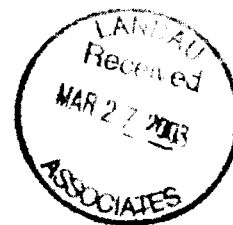
(a) MTCA Method B cleanup levels.

Documentation of 2003 Investigation

Shared Services Group
P.O. Box 3707
Seattle, WA 98124-2207
Mail Code 6Y-94

025152.070

March 25, 2003
G1243-PJJ-0332



Mr. Roger Nye
Voluntary Cleanup Program Coordinator
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452



**RE: VOLUNTARY CLEANUP PROGRAM (VCP) REQUEST FOR NO-FURTHER-ACTION
DETERMINATION, CLEARWATER PROPERTY – BOEING SPACE CENTER
20403 68TH AVENUE SOUTH, KENT, WASHINGTON**

Dear Mr. Nye,

In recent telephone discussions with our consultant Tim Syverson of Landau Associates, Inc., regarding Boeing's request for a no-further-action determination for the Clearwater property located within the Boeing Space Center, you indicated that additional information regarding two diesel spills at the property is necessary prior to making your determination.

Enclosed is a Technical Memorandum prepared by Landau Associates describing the nature and extent of the two diesel spills that occurred on the Boeing Space Center Clearwater property in 2000. The Technical Memorandum also describes the independent cleanup actions that were implemented to remove the contaminated material following each spill and the results of the confirmation sampling that was performed in association with each cleanup. I trust that the information provides you with the additional information that you requested for determining an NFA at the Boeing Space Center Clearwater property.

Please call me if you have any further questions, or have need for any additional information.

Sincerely,

Paul Johansen, Project Manager
The Boeing Company
SSG Safety Health and Environmental Affairs
425-393-2565
paul.j.johansen@boeing.com

Enclosures

Cc: Kris Hendrickson, Landau Associates, Inc.
Tim Syverson, Landau Associates, Inc.

TECHNICAL MEMORANDUM

TO: Paul Johansen, The Boeing Company

FROM: Tim Syverson, Landau Associates

DATE: March 18, 2003

RE: **AUGUST AND DECEMBER 2000 DIESEL SPILLS – BUILDING 18-21
CLEARWATER PROPERTY – BOEING SPACE CENTER
20403 68TH AVENUE SOUTH, KENT, WASHINGTON**

INTRODUCTION

This technical memorandum summarizes the available information regarding two diesel spills near Building 18-21 on the Clearwater property. The information presented was developed based on our review of information from The Boeing Company (Boeing) files and discussions with Boeing Safety Health and Environmental Affairs (SHEA) personnel. The purpose of this memorandum is to address the request for additional information regarding these diesel spills that was received by telephone from Roger Nye, Washington State Department of Ecology Voluntary Cleanup Program. Mr. Nye is reviewing Boeing's request for a no-further-action determination for the Clearwater property located within the Boeing Space Center.

SITE BACKGROUND

The Boeing Space Center is located at 20403 68th Avenue South in Kent, King County, Washington. The portion of the Boeing Space Center referred to as the Clearwater property consists of 12 buildings and the underlying land owned by Boeing. These buildings are part of the Boeing Integrated Defense Systems (IDS) asset consolidation and utilization program known as Clearwater. The Clearwater property is shown on Figure 1, attached to the Voluntary Cleanup Program (VCP) Site Summary Form previously submitted to Ecology. Boeing is planning to sell the Clearwater property. A letter requesting a no-further-action determination for the property dated October 18, 2002 was submitted to Ecology. Enclosed with the letter were the required forms and copies of relevant site reports and correspondence. The reports included a Phase I Environmental Site Assessment (ESA) (Landau Associates 2002a), and a Phase II ESA (Landau Associates 2002b).

The Phase I ESA identified two diesel spills, which occurred August 29, 2000, and December 5, 2000 near Building 18-21 located on the Clearwater property. The nature and extent of these spills, the independent cleanup actions that were implemented to remove the contaminated material following each

spill, and the results of the confirmation sampling that was performed are discussed in the remainder of this letter.

AUGUST 29, 2000 DIESEL SPILL

On August 29, 2000, a diesel fuel spill occurred in an area outside the northeast corner of Building 18-21. The spill occurred due to leakage from a pump that transfers diesel from an aboveground storage tank (AST) to a diesel generator. The spill impacted an area of approximately 3 ft by 10 ft. The volume of diesel spilled was not determined. An initial soil sample collected from within the impacted area indicated a diesel-range petroleum hydrocarbon concentration of 8,409 mg/kg. Excavation to remove the impacted soil from between the concrete generator pad and Building 18-21 began on September 15, 2000. During excavation, groundwater was encountered at approximately 2.5 ft below ground surface (BGS). Because the typical depth to groundwater at the Clearwater property is approximately 12 ft BGS, the water encountered in the excavation is considered to be surface water (rain and irrigation) that had been trapped within the coarse gravel subgrade present below the adjacent concrete pad. Diesel fuel was observed floating on the water. Approximately 400 gal of water were pumped from the excavation. Following completion of the excavation to a depth of about 3.3 ft BGS, three confirmation soil samples were collected from the sidewalls of the excavation and two confirmation samples were collected from the base of the excavation. Concentrations of diesel-range petroleum hydrocarbons in one sidewall sample and one base sample were 1,989 mg/kg and 791 mg/kg, respectively. Diesel-range petroleum hydrocarbon concentrations for the remaining confirmation samples ranged from 42 mg/kg to 180 mg/kg. Additional soil was excavated in the areas of the two samples with higher diesel-range petroleum hydrocarbon concentrations. Following excavation in these areas, two additional confirmation samples were collected (one from the sidewall of the excavation and one from the base of the excavation). Diesel-range petroleum hydrocarbons were not detected in either of these samples.

The final area excavated was approximately 3 ft by 10 ft to a depth of approximately 3.5 ft BGS. Based on confirmation sample results, diesel-range petroleum hydrocarbons concentrations in the remaining soil ranged from non-detect to 180 mg/kg. The excavation was subsequently backfilled with clean imported sand.

Diesel-range petroleum hydrocarbon concentrations for the soil that was removed during this cleanup and the soil remaining are presented in Table 1.

DECEMBER 5, 2000 DIESEL SPILL

On December 5, 2000, a second diesel fuel spill occurred near Building 18-21 due to a leak from the generator. The diesel fuel spilled onto the concrete generator pad and then into fill material adjacent to and beneath the pad. The estimated volume of the spill was approximately 25 gallons. Due to preferentially coarse fill material beneath the pad, most of the spilled material accumulated there; however, the impacted area surrounding the concrete pad was approximately 270 ft². Three soil samples collected from within the impacted area indicated the presence of diesel-range petroleum hydrocarbons at concentrations ranging from 278 mg/kg to 8,631 mg/kg. Excavation to remove the impacted soil began on December 18, 2000. Again, diesel fuel was observed floating on the water collected in the excavation. Both water and soil were removed during this cleanup action. Initially, the area of impacted soil was excavated to a depth of about 4 ft BGS. Nine confirmation samples were collected (4 from the excavation sidewalls and 5 from the base of the excavation). Three of the confirmation samples had diesel-range petroleum hydrocarbon concentrations ranging from 373 mg/kg to 8,467 mg/kg. The remaining samples had diesel-range petroleum hydrocarbon concentrations below 200 mg/kg. Additional soil was excavated in the areas with soil concentrations exceeding 200 mg/kg. Following additional excavation, three additional confirmation soil samples were collected from the sidewalls and one from the base of the excavation. Diesel-range petroleum hydrocarbon results for these samples ranged from non-detect to 156 mg/kg. Diesel-range petroleum hydrocarbon concentrations for the soil that was removed during this cleanup and the soil remaining are presented in Table 2.

The area excavated during this cleanup was approximately 310 ft² to a depth of approximately 4.5 ft. Approximately 48 yd³ of soil and 4,900 gal of water mixed with soil were removed. Potentially impacted soil from below the concrete pad could not be removed without compromising the pad; therefore, to address this soil, the excavation was backfilled with layers of oxygen releasing compound (ORC) slurry and gravel. The ORC was added to aid in degradation of petroleum hydrocarbons that might migrate from below the concrete pad. A horizontal PVC pipe was also placed in the excavation to create a collection trench. Vertical standpipes were connected to the horizontal pipe to allow monitoring and collection of water that may accumulate in the collection trench.

NEARBY GROUNDWATER CONDITIONS

During the Phase II ESA soil and groundwater quality investigation at the Clearwater property, a monitoring well sample (BSC-18-21-01) was installed approximately 20 ft north of the concrete generator pad, and another monitoring well (BSC-18-22-03) was installed approximately 130 ft northwest of the location of the diesel spills. General groundwater flow at the Clearwater property is to the northwest. During the Phase II ESA, groundwater samples were collected at each well and analyzed for diesel-range

and heavy oil-range petroleum hydrocarbons. Neither diesel-range nor heavy oil-range petroleum hydrocarbon was detected in the samples.

REFERENCES

Landau Associates. 2002a. *Phase I Environmental Site Assessment, Boeing Clearwater, Kent, Washington*. January 30.

Landau Associates. 2002b. *Phase II Environmental Site Assessment, Boeing Clearwater, Kent, Washington*. June 4.

TABLE 1
SUMMARY OF SOIL SAMPLE RESULTS FOR
AUGUST 29, 2000 DIESEL FUEL SPILL

Sample Identification	Sample Location within Excavation	Sample Collection Date	Diesel-Range Petroleum Hydrocarbons (WTPH-D) (mg/kg)
Soil Excavated			
KSC-18-21-D.OIL-01	NA	9/11/2000	8409
KSC-18-21-D.OIL-02	sidewall	9/18/2000	1989
KSC-18-21-D.OIL-05	floor	9/18/2000	791
Soil Remaining (a)			
KSC-18-21-D.OIL-03	floor	9/18/2000	59.2
KSC-18-21-D.OIL-04	sidewall	9/18/2000	180
KSC-18-21-D.OIL-06	sidewall	9/18/2000	42.4
KSC-18-21 D. OIL-02.1	sidewall	9/20/2000	25 U
KSC-18-21 D. OIL-05.1	floor	9/20/2000	25 U

NA = Not applicable. Sample collected from impacted area prior to excavation
U = Analyte was not detected above the reported detection limit.

(a) Results for soil remaining are only representative of soil present between the existing concrete pad and Building 18-21.
They are not representative of the soil below the concrete pad.

**TABLE 2
SUMMARY OF SOIL SAMPLE RESULTS FOR
DECEMBER 5, 2000 DIESEL FUEL SPILL**

Sample Identification	Sample Location within Excavation	Sample Collection Date	Diesel-Range Petroleum Hydrocarbons (WTPH-D) (mg/kg)
Soil Excavated			
KSC-18-21-D.OIL-D10	NA	12/20/2000	554
KSC-18-21-D.OIL-D11	NA	12/20/2000	8631
KSC-18-21-D.OIL-D12	NA	12/20/2000	278
KSC-18-21-D.OIL-D13	floor	1/12/2001	8467
KSC-18-21-D.OIL-D15	sidewall	1/12/2001	4082
KSC-18-21-D.OIL-D19	floor	1/12/2001	372
Soil Remaining (a)			
KSC-18-21-D.OIL-D14	sidewall	1/12/2001	44.5
KSC-18-21-D.OIL-D16	sidewall	1/12/2001	25 U
KSC-18-21-D.OIL-D17	sidewall	1/12/2001	70.0
KSC-18-21-D.OIL-D18	floor	1/12/2001	49.9
KSC-18-21-D.OIL-D20	floor	1/12/2001	25 U
KSC-18-21-D.OIL-D21	floor	1/12/2001	135
KSC-18-21-D.OIL-D22	sidewall	1/22/2001	25 U
KSC-18-21-D.OIL-D23	sidewall	1/23/2001	25 U
KSC-18-21-D.OIL-D24	sidewall	1/23/2001	156
KSC-18-21-D.OIL-D25	floor	1/23/2001	66.5

NA = Not applicable. Sample collected from impacted area prior to excavation
 U = Analyte was not detected above the reported detection limit.

(a) Results for soil remaining are only representative of soil present between the existing concrete pad and Building 18-21.
 They are not representative of the soil below the concrete pad.

Terrestrial Ecological Evaluation Exposure Analysis

Table 749-1

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

Estimate the area of contiguous (connected) <u>undeveloped land</u> on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).		
1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.		
	<u>Area (acres)</u>	<u>Points</u>
	0.25 or less	4
	0.5	5
	1.0	6
	1.5	7
	2.0	8
	2.5	9
	3.0	10
	3.5	11
	4.0 or more	12
2) Is this an <u>industrial</u> or <u>commercial</u> property? If yes, enter a score of 3. If no, enter a score of 1		3
3) ^a Enter a score in the box to the right for the habitat quality of the site, using the following rating system ^b . High=1, Intermediate=2, Low=3		3
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2. ^c		2
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.		4
6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.		12

Notes for Table 749-1

^a It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

^b **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

Low: Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.

High: Area is ecologically significant for one or more of the following reasons: Late-[successional](#) native plant communities present; relatively high species diversity; used by an uncommon or rare species; [priority habitat](#) (as defined by the Washington Department of fish and Wildlife); part of a larger area of habitat where size or fragmentation may be important for the retention of some species.

Intermediate: Area does not rate as either high or low.

^c Indicate "yes" if the area attracts wildlife or is likely to do so. Examples: Birds frequently visit the area to feed; evidence of high use b mammals (tracks, scat, etc.); habitat "island" in an industrial area; unusual features of an area that make it important for feeding animals; heavy use during seasonal migrations.

[\[Area Calculation Aid\]](#) [\[Aerial Photo with Area Designations\]](#) [TEE Table 749-1] [\[Index of Tables\]](#)

[\[Exclusions Main\]](#) [\[TEE Definitions\]](#) [\[Simplified or Site-Specific?\]](#) [\[Simplified Ecological Evaluation\]](#) [\[Site-Specific Ecological Evaluation\]](#) [\[WAC 173-340-7493\]](#)

[\[TEE Home\]](#)

Documentation of Method B Calculations

A2. 1B Worksheet for Calculating Soil Cleanup Levels for Protection of Human Health: (Soil Direct Contact Pathway)

Method B: Unrestricted Land Use (WAC 173-340-740)

Date: 6/15/2011

Site Name: Striker

Sample Name: DP-24a-S-6-7

Chemical of Concern or EC group	Current Condition				Adjusted Condition			
	Measured Soil Conc @dry basis	HQ	RISK	Pass or Fail?	Soil Conc being tested	HQ	RISK	Pass or Fail?
	mg/kg	unitless	unitless		mg/kg	unitless	unitless	
<u>Petroleum EC Fraction</u>								
AL_EC >5-6	5.5	4.38E-05			1.09E+02	8.65E-04		
AL_EC >6-8	5.5	4.38E-05			1.09E+02	8.65E-04		
AL_EC >8-10	1.2	5.41E-04			2.37E+01	1.07E-02		
AL_EC >10-12	1.2	5.41E-04			2.37E+01	1.07E-02		
AL_EC >12-16	1.2	7.20E-04			2.37E+01	1.42E-02		
AL_EC >16-21	1.2	1.08E-05			2.37E+01	2.13E-04		
AL_EC >21-34	1.2	1.08E-05			2.37E+01	2.13E-04		
AR_EC >8-10	1.2	1.62E-04			2.37E+01	3.21E-03		
AR_EC >10-12	1.2	8.12E-04			2.37E+01	1.60E-02		
AR_EC >12-16	10	3.60E-03			1.98E+02	7.11E-02		
AR_EC >16-21	30	1.80E-02			5.93E+02	3.56E-01		
AR_EC >21-34	9.9	4.46E-03			1.96E+02	8.80E-02		
Benzene	0.0019	5.94E-06	1.05E-10		3.75E-02	1.17E-04	2.07E-09	
Toluene	0.0013	2.17E-07			2.57E-02	4.28E-06		
Ethylbenzene	0.067	8.98E-06			1.32E+00	1.77E-04		
Total Xylenes	0.109	7.31E-06			2.15E+00	1.44E-04		
Naphthalene	0.74	6.11E-04			1.46E+01	1.21E-02		
1-Methyl Naphthalene	0				0.00E+00	0.00E+00		
2-Methyl Naphthalene	0				0.00E+00	0.00E+00		
n-Hexane	0				0.00E+00	0.00E+00		
MTBE	0.00055				1.09E-02			
Ethylene Dibromide (EDB)	0.00055	8.27E-07	5.06E-08		1.09E-02	1.63E-05	1.00E-06	
1,2 Dichloroethane (EDC)	0.00055	2.48E-07	5.42E-11		1.09E-02	4.90E-06	1.07E-09	
Benzo(a)anthracene	0		0.00E+00	For	0.00E+00		0.00E+00	For
Benzo(b)fluoranthene	0		0.00E+00	all	0.00E+00		0.00E+00	all
Benzo(k)fluoranthene	0		0.00E+00	cPAHs	0.00E+00		0.00E+00	cPAHs
Benzo(a)pyrene	0		0.00E+00		0.00E+00		0.00E+00	
Chrysene	0		0.00E+00		0.00E+00		0.00E+00	
Dibenz(a,h)anthracene	0		0.00E+00	Σ Risk=	0.00E+00		0.00E+00	Σ Risk=
Indeno(1,2,3-cd)pyrene	0		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Sum	70.22085	2.96E-02	5.08E-08		1.39E+03	5.84E-01	1.00E-06	

TEST CURRENT CONDITION
Measured TPH Soil Conc, mg/kg= 70.221
HI= 2.958E-02
RISK= 5.077E-08
Pass or Fail? Pass

CALCULATE PROTECTIVE CONDITION
This tool allows the user to calculate protective TPH soil concentration based on various soil quality criteria. The Workbook uses the same composition ratio as for the measured data.
Calculate Protective TPH Soil Conc
Selected Criterion: @EDB Risk=1E-6
Most Stringent? YES
Protective TPH Soil Conc, mg/kg = 1387.58
HI = 5.84E-01
RISK = 1.00E-06

TEST ADJUSTED CONDITION
This tool allows the user to test whether a particular TPH soil concentration is protective of human health. The Workbook uses the same composition ratio as for the measured data.
Test Adjusted TPH Soil Conc
Tested TPH Soil Conc, mg/kg =
HI =
RISK =
Pass or Fail?

A2. 1B Worksheet for Calculating Soil Cleanup Levels for Protection of Human Health: (Soil Direct Contact Pathway)

Method B: Unrestricted Land Use (WAC 173-340-740)

Date: 6/6/2011

Site Name: Striker

Sample Name: DP-24a-S-9-10

Chemical of Concern or EC group	Current Condition				Adjusted Condition			
	Measured Soil Conc @dry basis	HQ	RISK	Pass or Fail?	Soil Conc being tested	HQ	RISK	Pass or Fail?
	mg/kg	unitless	unitless		mg/kg	unitless	unitless	
<u>Petroleum EC Fraction</u>								
AL_EC >5-6	9.5	7.56E-05			3.44E+01	2.74E-04		
AL_EC >6-8	9.5	7.56E-05			3.44E+01	2.74E-04		
AL_EC >8-10	22	9.92E-03			7.96E+01	3.59E-02		
AL_EC >10-12	8.5	3.83E-03			3.08E+01	1.39E-02		
AL_EC >12-16	50	3.00E-02			1.81E+02	1.09E-01		
AL_EC >16-21	78	7.02E-04			2.82E+02	2.54E-03		
AL_EC >21-34	22	1.98E-04			7.96E+01	7.17E-04		
AR_EC >8-10	43	5.82E-03			1.56E+02	2.11E-02		
AR_EC >10-12	190	1.29E-01			6.88E+02	4.65E-01		
AR_EC >12-16	200	7.20E-02			7.24E+02	2.61E-01		
AR_EC >16-21	25	1.50E-02			9.05E+01	5.43E-02		
AR_EC >21-34	5.2	2.34E-03			1.88E+01	8.47E-03		
Benzene	0.0074	2.32E-05	4.07E-10		2.68E-02	8.38E-05	1.47E-09	
Toluene	0.00105	1.75E-07			3.80E-03	6.33E-07		
Ethylbenzene	0.92	1.23E-04			3.33E+00	4.46E-04		
Total Xylenes	0.97	6.51E-05			3.51E+00	2.35E-04		
Naphthalene	9.2	7.60E-03			3.33E+01	2.75E-02		
1-Methyl Naphthalene	0				0.00E+00	0.00E+00		
2-Methyl Naphthalene	0				0.00E+00	0.00E+00		
n-Hexane	0				0.00E+00	0.00E+00		
MTBE	0.00105				3.80E-03			
Ethylene Dibromide (EDB)	0.00105	1.58E-06	9.66E-08		3.80E-03	5.71E-06	3.50E-07	
1,2 Dichloroethane (EDC)	0.00105	4.74E-07	1.03E-10		3.80E-03	1.71E-06	3.74E-10	
Benzo(a)anthracene	0		0.00E+00	For	0.00E+00		0.00E+00	For
Benzo(b)fluoranthene	0		0.00E+00	all	0.00E+00		0.00E+00	all
Benzo(k)fluoranthene	0		0.00E+00	cPAHs	0.00E+00		0.00E+00	cPAHs
Benzo(a)pyrene	0		0.00E+00		0.00E+00		0.00E+00	
Chrysene	0		0.00E+00		0.00E+00		0.00E+00	
Dibenz(a,h)anthracene	0		0.00E+00	Σ Risk=	0.00E+00		0.00E+00	Σ Risk=
Indeno(1,2,3-cd)pyrene	0		0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Sum	673.8016	2.76E-01	9.71E-08		2.44E+03	1.00E+00	3.51E-07	

TEST CURRENT CONDITION
Measured TPH Soil Conc, mg/kg= 673.802
HI= 2.763E-01
RISK= 9.712E-08
Pass or Fail? Pass

CALCULATE PROTECTIVE CONDITION
This tool allows the user to calculate protective TPH soil concentration based on various soil quality criteria. The Workbook uses the same composition ratio as for the measured data.
Calculate Protective TPH Soil Conc
Selected Criterion: @HI=1
Most Stringent? YES
Protective TPH Soil Conc, mg/kg = 2438.44
HI = 1.00E+00
RISK = 3.51E-07

TEST ADJUSTED CONDITION
This tool allows the user to test whether a particular TPH soil concentration is protective of human health. The Workbook uses the same composition ratio as for the measured data.
Test Adjusted TPH Soil Conc
Tested TPH Soil Conc, mg/kg =
HI =
RISK =
Pass or Fail?

Laboratory Analytical Reports (on CD-ROM)



Analytical Resources, Incorporated
Analytical Chemists and Consultants

August 19, 2010

Tim Syverson
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker 025195.020.022
ARI Job: RG52 - Revised

Dear Tim

Enclosed, please find the original 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 two water samples and four soil samples in good condition on July 29, 2010. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form. Per Landau Associates, water samples were allowed to settle and sample aliquot was collected from the clear portion.

The samples were analyzed for Total & Dissolved Metals, Hexavalent Chrome, SVOCs, VOCs, PCBs, NWTPH-Dx and NWTPH-Gx, as requested on the COC.

Surrogates Bromofluorobenzene and d4-1,2-Dichlorobenzene were out of control high in the original VOC analysis of sample **KSC-DP-3-S-7-8-100729**. These surrogates were in control in the reanalysis.

Trichlorofluoromethane and trans-1,4-Dichloro-2-butene were out of control high in the VOC CCAL on 08/09/10 – associated with the analysis of the water samples. These compounds were not detected in the samples. No further corrective action was required.

Chloromethane, Methylene Chloride, and 1,1,1,2-Tetrachloroethane were out of control low in the VOC CCAL on 08/09/10 – associated with the analysis of soil samples. No further corrective action was required.

Bromomethane, 4-Chlorotoluene, 4-Isopropyltoluene, and n-Butylbenzene were out of control high in the VOC CCAL on 08/10/10 – associated with the reanalysis of sample **KSC-DP-3-S-7-8-100729**, while Methyl Iodide was out of control low. No further corrective action was required.

Surrogates d5-Phenol and d4-2-Chlorophenol were out of control high in the SVOC water LCS. No further corrective action was taken.



Analytical Resources, Incorporated

Analytical Chemists and Consultants

Benzyl Alcohol was out of control high in the SVOC LCS and LCSD associated with the water samples. There were no detections for this compound in the samples. No further corrective action was taken.

The SVOC CCAL from 08/11/10, associated with the soil samples, was out of control low for 2,4-Dinitrophenol and 4-Nitrophenol. No further corrective action was required.

Aroclor 1016 was out of control high in the PCB LCS and LCSD. There were no detections in the samples. No further corrective action was taken.

The soluble and insoluble water matrix spikes were out of control low for Hexavalent Chrome, with only the soluble soil matrix spike out of control low. All other quality control measures were in control. 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

Eric Branson
Project Manager

-for-

Kelly Bottem
Client Services Manager
(206) 695-6211
kellyb@arilabs.com



Data Reporting Qualifiers

Effective 7/10/2009

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but \geq the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ($< 20\%$ RSD, $< 20\%$ Drift or minimum RRF).
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte



- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference

Geotechnical Data

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____

R652

Date 7/29/10
 Page 1 of _____

Chain-of-Custody Record

Project Name Striker Project No. 025195.020.022

Project Location/Event Striker Property

Sampler's Name CFB/SED

Project Contact Tim Svenson / Joe Flaherty (Boeing)

Send Results To " " / Kathryn Harter

Turnaround Time
 Standard
 Accelerated

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters										Observations/Comments			
					PCBs	Metals w/cr6	SVOC	VOC	TPH-Dx	TPH-Gx	Metals by 5035	Metals - f. filtered	TPH-VOC	Cr6 - f. filtered				
KSC-DP-7-S-3.5.4-100729	7/29/10	835	soil	7	X	X	X	X	X	X								X Allow water samples to settle, collect aliquot from clear portion
KSC-DP-8-S-4.5-5-100729	7/29/10	915	soil	7	X	X	X	X	X	X								X NWTPH-Dx - run acid wash/silica gel cleanup
KSC-DP-9-S-5.5-6-100729	7/29/10	1000	soil	7	X	X	X	X	X	X								
KSC-DP-5-GW-100729	7/29/10	1515	water	11			X	X		X	X	X	X					run samples standardized to _____ product
KSC-DP-9-GW-100729	7/29/10	1705	water	11			X	V		X	X	X	X					Analyze for EPH if no specific product identified
KSC-DP-3-GW-CFB																		VOC/BTEX/VPH (soil): ___ non-preserved ___ preserved w/methanol ___ preserved w/sodium bisulfate ___ Freeze upon receipt
KSC-DP-3-S-7-8-100729	7/29/10	1455	soil	7	X	X	X	X	X	X								<input checked="" type="checkbox"/> Dissolved metal water samples field filtered

Special Shipment/Handling or Storage Requirements		Method of Shipment	
Relinquished by Signature <u>[Signature]</u> Printed Name <u>Chris Burke</u> Company <u>LANDAU</u> Date <u>7/29/10</u> Time <u>1825</u>	Received by Signature <u>[Signature]</u> Printed Name <u>[Signature]</u> Company <u>AK</u> Date <u>7/29/10</u> Time <u>1825</u>	Relinquished by Signature _____ Printed Name _____ Company _____ Date _____ Time _____	Received by Signature _____ Printed Name _____ Company _____ Date _____ Time _____

RG52:00005



Cooler Receipt Form

ARI Client: Boeing Landau Boeing
 COC No(s): _____ NA
 Assigned ARI Job No: RG41

Project Name: Striker
 Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____
 Tracking No: _____ (NA)

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 2.4
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 9087752

Cooler Accepted by: JM Date: 7/29/10 Time: 1825

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... NA YES NO
 Were all VOC vials free of air bubbles? NA YES NO
 Was sufficient amount of sample sent in each bottle? YES NO
 Date VOC Trip Blank was made at ARI..... NA _____
 Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

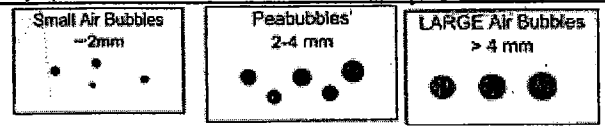
Samples Logged by: Bob Conley Date: 7/30 Time: 1030

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
DP-4-GW-100729	DP-5-GW-100729		

Additional Notes, Discrepancies, & Resolutions:

DOWN WATER SAMPLE COLLECTED AT 1515: BOTTLES ALL SAY DP-4
ALSO, ONE SOIL JAR FROM DP-7 COL READS DP-5.
 By: BC Date: 7/30/10 SAMPLE SET READS DP-12 (REST OF ID MATCHES).



Small → "sm"
 Peabubbles → "pb"
 Large → "lg"
 Headspace → "hs"

PRESERVATION VERIFICATION 07/30/10

Page 1 of 1



ARI Job No: RG52

PC: Kelly
VTSR: 07/29/10

Inquiry Number: NONE
Analysis Requested: 07/30/10
Contact: Syverson, Tim
Client: Landau Associates, Inc.
Logged by: BC
Sample Set Used: Yes-490
Validatable Package: No
Deliverables:

Project #: 025195.020.022
Project: Striker
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
10-18191 RG52A	KSC-DP-5-GW-100729						DIS OK									Y						
10-18192 RG52B	KSC-DP-9-GW-100729						DIS OK									Y						

RG52: 00007

Checked By BC Date 7/30

- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____



RG52

Date 7/29/10
Page 1 of _____

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>025195.020.022</u>					Testing Parameters							Turnaround Time							
Project Location/Event <u>Striker Property</u>					<div style="display: flex; justify-content: space-around; font-size: small;"> PCBS Metals w/ Cr6 510C VOC VOC by 5035 TPH-Dx TPH-Dx Metals by 5035 Metals - f: Filtered 5100 VOC TPH-6x Cr6 - f: Filtered </div>							<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____							
Sampler's Name <u>CFB/SED</u>																			
Project Contact <u>Tim Sverson / Joe Flaherty (Boetis)</u>																			
Send Results To _____																			
Sample I.D.	Date	Time	Matrix	No. of Containers								Observations/Comments							
<u>KSC-DP-7-S-3.5.4-100729</u>	<u>7/29/10</u>	<u>835</u>	<u>soil</u>	<u>7</u>	X	X	X	X	X	X					X Allow water samples to settle, collect aliquot from clear portion				
<u>KSC-DP-8-S-4.5.5-100729</u>	<u>7/29/10</u>	<u>915</u>	<u>soil</u>	<u>7</u>	X	X	X	X	X	X									
<u>KSC-DP-9-S-5.5.6-100729</u>	<u>7/29/10</u>	<u>1000</u>	<u>soil</u>	<u>7</u>	X	X	X	X	X	X					X NWTPH-Dx - run acid wash/silica gel cleanup				
<u>KSC-DP-5-GW-100729</u>	<u>7/29/10</u>	<u>1515</u>	<u>water</u>	<u>11</u>			X	X	X	X	X	X	X						
<u>KSC-DP-4-GW-100729</u>	<u>7/29/10</u>	<u>1705</u>	<u>water</u>	<u>11</u>			X	X	X	X	X	X	X						
<u>KSC-DP-3-GW-CFB</u>																			
<u>KSC-DP-3-S-7-8-100729</u>	<u>7/29/10</u>	<u>1455</u>	<u>soil</u>	<u>7</u>	X	X	X	X	X	X					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 _____				

Special Shipment/Handling or Storage Requirements										Method of Shipment									
Relinquished by					Received by					Relinquished by					Received by				
Signature <u>Chris Bruce</u>					Signature <u>[Signature]</u>					Signature _____					Signature _____				
Printed Name <u>Chris Bruce</u>					Printed Name <u>[Name]</u>					Printed Name _____					Printed Name _____				
Company <u>LANDAU</u>					Company <u>RFI</u>					Company _____					Company _____				
Date <u>7/29/10</u> Time <u>1825</u>					Date <u>7/29/10</u> Time <u>1925</u>					Date _____ Time _____					Date _____ Time _____				

Sample 10 changed from KSC-DP-5 to KSC-DP-4

RG52: 00008

Subject: Re: Striker - RG52 revised COC
From: Kelly Bottem <kellyb@arilabs.com>
Date: Fri, 13 Aug 2010 14:22:21 -0700
To: Kathryn Hartley <khartley@landauinc.com>
CC: Anne Halvorsen <AHalvorsen@landauinc.com>, Tim Syverson <tsyverson@landauinc.com>, Chris Burke <cburke@landauinc.com>, Eric Branson <eric@arilabs.com>

Got it.
K

Kathryn Hartley wrote:

Kelly,

As indicated on the attached COC, please change sample number KSC-DP-5-GW-100729 to KSC-DP-4-GW-100729.

Please confirm that you received this message.

Thank you,

Kathryn

*Kathryn F. Hartley ** **** * Project Scientist
Landau Associates, Inc.
*130 2nd Ave. S, Edmonds, WA 98020
425.778.0907 " direct 425.329.0268 " cell 425.248.7520
khartley@landauinc.com " www.landauinc.com

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--

Kelly Frances Bottem, Client Services Manager
Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168-3240
Website: <http://www.arilabs.com>
Direct Phone: 206-695-6211
E-Mail: kellyb@arilabs.com
Fax: 206-695-6201
Cell: 206-228-1385

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-4-GW-100729

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SAMPLE

Lab Sample ID: RG52A


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18191

Project: Striker

Matrix: Water

025195.020.022

Data Release Authorized: 

Date Sampled: 07/29/10

Reported: 08/19/10

Date Received: 07/29/10

Instrument/Analyst: NT10/PKC

Sample Amount: 10.0 mL

Date Analyzed: 08/09/10 15:00

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-4-GW-100729

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SAMPLE

Lab Sample ID: RG52A

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18191

Project: Striker

Matrix: Water

025195.020.022

Date Analyzed: 08/09/10 15:00

CAS Number	Analyte	RL	Result	Q
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
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	104%
d8-Toluene	99.5%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	102%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET


Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: KSC-DP-9-GW-100729
SAMPLE

Lab Sample ID: RG52B

LIMS ID: 10-18192

Matrix: Water

Data Release Authorized: 

Reported: 08/10/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Instrument/Analyst: NT10/PKC

Date Analyzed: 08/09/10 15:25

Sample Amount: 10.0 mL

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
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Sample ID: KSC-DP-9-GW-100729
SAMPLE

Lab Sample ID: RG52B
LIMS ID: 10-18192
Matrix: Water
Date Analyzed: 08/09/10 15:25

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result	Q
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
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	107%
d8-Toluene	99.7%
Bromofluorobenzene	98.9%
d4-1,2-Dichlorobenzene	103%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-7-S-3.5-4-100729

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SAMPLE

Lab Sample ID: RG52C


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18193

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: 07/29/10

Reported: 08/11/10

Date Received: 07/29/10

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.58 g-dry-wt

Date Analyzed: 08/09/10 14:25

Purge Volume: 5.0 mL

Moisture: 11.1%

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
67-64-1	Acetone	4.5	24	
75-15-0	Carbon Disulfide	0.9	1.6	
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	4.5	< 4.5	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	4.5	< 4.5	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	4.5	< 4.5	U
75-25-2	Bromoform	0.9	< 0.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.5	< 4.5	U
591-78-6	2-Hexanone	4.5	< 4.5	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
179601-23-1	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	45	< 45	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
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Sample ID: KSC-DP-7-S-3.5-4-100729
SAMPLE

Lab Sample ID: RG52C
LIMS ID: 10-18193
Matrix: Soil
Date Analyzed: 08/09/10 14:25

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	0.9	< 0.9	U
74-96-4	Bromoethane	1.8	< 1.8	U
107-13-1	Acrylonitrile	4.5	< 4.5	U
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	4.5	< 4.5	U
96-18-4	1,2,3-Trichloropropane	1.8	< 1.8	U
110-57-6	trans-1,4-Dichloro-2-butene	4.5	< 4.5	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	4.5	< 4.5	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	4.5	< 4.5	U
91-20-3	Naphthalene	4.5	< 4.5	U
87-61-6	1,2,3-Trichlorobenzene	4.5	< 4.5	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	130%
d8-Toluene	104%
Bromofluorobenzene	97.3%
d4-1,2-Dichlorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-8-S-4.5-5-100729

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SAMPLE

Lab Sample ID: RG52D


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18194

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: 07/29/10

Reported: 08/11/10

Date Received: 07/29/10

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.72 g-dry-wt

Date Analyzed: 08/09/10 14:54

Purge Volume: 5.0 mL

Moisture: 11.0%

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
67-64-1	Acetone	5.3	9.2	
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
179601-23-1	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	53	< 53	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-8-S-4.5-5-100729

Page 2 of 2

SAMPLE

Lab Sample ID: RG52D

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18194

Project: Striker

Matrix: Soil

025195.020.022

Date Analyzed: 08/09/10 14:54

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.1	< 1.1	U
74-96-4	Bromoethane	2.1	< 2.1	U
107-13-1	Acrylonitrile	5.3	< 5.3	U
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	5.3	< 5.3	U
96-18-4	1,2,3-Trichloropropane	2.1	< 2.1	U
110-57-6	trans-1,4-Dichloro-2-butene	5.3	< 5.3	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	5.3	< 5.3	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	5.3	< 5.3	U
91-20-3	Naphthalene	5.3	< 5.3	U
87-61-6	1,2,3-Trichlorobenzene	5.3	< 5.3	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	138%
d8-Toluene	106%
Bromofluorobenzene	98.9%
d4-1,2-Dichlorobenzene	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: KSC-DP-9-S-5.5-6-100729
SAMPLE

Lab Sample ID: RG52E
LIMS ID: 10-18195
Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/09/10 15:18

Sample Amount: 4.69 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 9.9%

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
67-64-1	Acetone	5.3	39	
75-15-0	Carbon Disulfide	1.1	6.1	
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
179601-23-1	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	53	< 53	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-9-S-5.5-6-100729
SAMPLE

Lab Sample ID: RG52E
LIMS ID: 10-18195
Matrix: Soil
Date Analyzed: 08/09/10 15:18

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.1	< 1.1	U
74-96-4	Bromoethane	2.1	< 2.1	U
107-13-1	Acrylonitrile	5.3	< 5.3	U
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	5.3	< 5.3	U
96-18-4	1,2,3-Trichloropropane	2.1	< 2.1	U
110-57-6	trans-1,4-Dichloro-2-butene	5.3	< 5.3	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	5.3	< 5.3	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	5.3	< 5.3	U
91-20-3	Naphthalene	5.3	< 5.3	U
87-61-6	1,2,3-Trichlorobenzene	5.3	< 5.3	U

Reported in µg/kg (ppb)


Volatile Surrogate Recovery

d4-1,2-Dichloroethane	131%
d8-Toluene	102%
Bromofluorobenzene	96.4%
d4-1,2-Dichlorobenzene	105%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: KSC-DP-3-S-7-8-100729
SAMPLE

Lab Sample ID: RG52F
LIMS ID: 10-18196
Matrix: Soil
Data Release Authorized: 
Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/09/10 15:45

Sample Amount: 5.16 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 15.5%

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
67-64-1	Acetone	4.8	41	
75-15-0	Carbon Disulfide	1.0	1.6	
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	5.8	
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
179601-23-1	m,p-Xylene	1.0	8.9	
95-47-6	o-Xylene	1.0	5.0	
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	48	< 48	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-3-S-7-8-100729

Page 2 of 2

SAMPLE

Lab Sample ID: RG52F

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18196

Project: Striker

Matrix: Soil

025195.020.022

Date Analyzed: 08/09/10 15:45

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	1.9	< 1.9	U
107-13-1	Acrylonitrile	4.8	< 4.8	U
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	4.8	< 4.8	U
96-18-4	1,2,3-Trichloropropane	1.9	< 1.9	U
110-57-6	trans-1,4-Dichloro-2-butene	4.8	< 4.8	U
108-67-8	1,3,5-Trimethylbenzene	1.0	65	
95-63-6	1,2,4-Trimethylbenzene	1.0	160	S
87-68-3	Hexachlorobutadiene	4.8	< 4.8	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	9.0	
103-65-1	n-Propylbenzene	1.0	23	
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	24	
99-87-6	4-Isopropyltoluene	1.0	30	
104-51-8	n-Butylbenzene	1.0	130	M
120-82-1	1,2,4-Trichlorobenzene	4.8	< 4.8	U
91-20-3	Naphthalene	4.8	250	ES
87-61-6	1,2,3-Trichlorobenzene	4.8	< 4.8	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	132%
d8-Toluene	105%
Bromofluorobenzene	126%
d4-1,2-Dichlorobenzene	125%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-3-S-7-8-100729

Page 1 of 2

REANALYSIS

Lab Sample ID: RG52F


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18196

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: 07/29/10

Reported: 08/11/10

Date Received: 07/29/10

Instrument/Analyst: FINN5/PAB

Sample Amount: 81.7 mg-dry-wt

Date Analyzed: 08/10/10 14:02

Purge Volume: 5.0 mL

Moisture: 15.5%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	61	< 61	U
74-83-9	Bromomethane	61	< 61	U
75-01-4	Vinyl Chloride	61	< 61	U
75-00-3	Chloroethane	61	< 61	U
75-09-2	Methylene Chloride	120	< 120	U
67-64-1	Acetone	310	< 310	U
75-15-0	Carbon Disulfide	61	< 61	U
75-35-4	1,1-Dichloroethene	61	< 61	U
75-34-3	1,1-Dichloroethane	61	< 61	U
156-60-5	trans-1,2-Dichloroethene	61	< 61	U
156-59-2	cis-1,2-Dichloroethene	61	< 61	U
67-66-3	Chloroform	61	< 61	U
107-06-2	1,2-Dichloroethane	61	< 61	U
78-93-3	2-Butanone	310	< 310	U
71-55-6	1,1,1-Trichloroethane	61	< 61	U
56-23-5	Carbon Tetrachloride	61	< 61	U
108-05-4	Vinyl Acetate	310	< 310	U
75-27-4	Bromodichloromethane	61	< 61	U
78-87-5	1,2-Dichloropropane	61	< 61	U
10061-01-5	cis-1,3-Dichloropropene	61	< 61	U
79-01-6	Trichloroethene	61	< 61	U
124-48-1	Dibromochloromethane	61	< 61	U
79-00-5	1,1,2-Trichloroethane	61	< 61	U
71-43-2	Benzene	61	< 61	U
10061-02-6	trans-1,3-Dichloropropene	61	< 61	U
110-75-8	2-Chloroethylvinylether	310	< 310	U
75-25-2	Bromoform	61	< 61	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	310	< 310	U
591-78-6	2-Hexanone	310	< 310	U
127-18-4	Tetrachloroethene	61	< 61	U
79-34-5	1,1,2,2-Tetrachloroethane	61	< 61	U
108-88-3	Toluene	61	< 61	U
108-90-7	Chlorobenzene	61	< 61	U
100-41-4	Ethylbenzene	61	< 61	U
100-42-5	Styrene	61	< 61	U
75-69-4	Trichlorofluoromethane	61	< 61	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	120	< 120	U
179601-23-1	m,p-Xylene	61	< 61	U
95-47-6	o-Xylene	61	< 61	U
95-50-1	1,2-Dichlorobenzene	61	< 61	U
541-73-1	1,3-Dichlorobenzene	61	< 61	U
106-46-7	1,4-Dichlorobenzene	61	< 61	U
107-02-8	Acrolein	3,100	< 3,100	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Page 2 of 2

**Sample ID: KSC-DP-3-S-7-8-100729
REANALYSIS**

Lab Sample ID: RG52F

LIMS ID: 10-18196

Matrix: Soil

Date Analyzed: 08/10/10 14:02

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	61	< 61	U
74-96-4	Bromoethane	120	< 120	U
107-13-1	Acrylonitrile	310	< 310	U
563-58-6	1,1-Dichloropropene	61	< 61	U
74-95-3	Dibromomethane	61	< 61	U
630-20-6	1,1,1,2-Tetrachloroethane	61	< 61	U
96-12-8	1,2-Dibromo-3-chloropropane	310	< 310	U
96-18-4	1,2,3-Trichloropropane	120	< 120	U
110-57-6	trans-1,4-Dichloro-2-butene	310	< 310	U
108-67-8	1,3,5-Trimethylbenzene	61	580	
95-63-6	1,2,4-Trimethylbenzene	61	2,200	
87-68-3	Hexachlorobutadiene	310	< 310	U
106-93-4	Ethylene Dibromide	61	< 61	U
74-97-5	Bromochloromethane	61	< 61	U
594-20-7	2,2-Dichloropropane	61	< 61	U
142-28-9	1,3-Dichloropropane	61	< 61	U
98-82-8	Isopropylbenzene	61	80	
103-65-1	n-Propylbenzene	61	240	
108-86-1	Bromobenzene	61	< 61	U
95-49-8	2-Chlorotoluene	61	< 61	U
106-43-4	4-Chlorotoluene	61	< 61	U
98-06-6	tert-Butylbenzene	61	< 61	U
135-98-8	sec-Butylbenzene	61	330	
99-87-6	4-Isopropyltoluene	61	400	
104-51-8	n-Butylbenzene	61	2,200	M
120-82-1	1,2,4-Trichlorobenzene	310	< 310	U
91-20-3	Naphthalene	310	1,200	
87-61-6	1,2,3-Trichlorobenzene	310	< 310	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	107%
d8-Toluene	104%
Bromofluorobenzene	109%
d4-1,2-Dichlorobenzene	109%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-080910	Method Blank	10	105%	98.3%	101%	103%	0
LCS-080910	Lab Control	10	106%	99.5%	105%	102%	0
LCSD-080910	Lab Control Dup	10	106%	101%	107%	99.9%	0
RG52A	KSC-DP-4-GW-100729	10	104%	99.5%	101%	102%	0
RG52B	KSC-DP-9-GW-100729	10	107%	99.7%	98.9%	103%	0

LCS/MB LIMITS

QC LIMITS

SW8260C

(DCE) = d4-1,2-Dichloroethane	70-132	80-143
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 10-18191 to 10-18192

VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-080910	Method Blank	Low	118%	104%	96.7%	101%	0
LCS-080910	Lab Control	Low	92.0%	103%	101%	98.2%	0
LCSD-080910	Lab Control Dup	Low	110%	105%	101%	99.7%	0
RG52C	KSC-DP-7-S-3.5-4-100729	Low	130%	104%	97.3%	101%	0
RG52D	KSC-DP-8-S-4.5-5-100729	Low	138%	106%	98.9%	103%	0
RG52E	KSC-DP-9-S-5.5-6-100729	Low	131%	102%	96.4%	105%	0
MB-081010	Method Blank	Med	105%	102%	93.1%	100%	0
LCS-081010	Lab Control	Med	107%	102%	98.5%	101%	0
LCSD-081010	Lab Control Dup	Med	107%	102%	99.2%	102%	0
RG52F	KSC-DP-3-S-7-8-100729	Low	132%	105%	126%*	125%*	2
RG52FRE	KSC-DP-3-S-7-8-100729	Med	107%	104%	109%	109%	0

LCS/MB LIMITS

QC LIMITS

SW8260C	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 10-18193 to 10-18196

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Page 1 of 2

Sample ID: LCS-080910

LAB CONTROL SAMPLE

Lab Sample ID: LCS-080910

LIMS ID: 10-18191

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 08/10/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT10/PKC

LCSD: NT10/PKC

Date Analyzed LCS: 08/09/10 10:38

LCSD: 08/09/10 11:03

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	10.5	10.0	105%	10.5	10.0	105%	0.0%
Bromomethane	11.6	10.0	116%	11.3	10.0	113%	2.6%
Vinyl Chloride	10.7	10.0	107%	10.7	10.0	107%	0.0%
Chloroethane	11.6	10.0	116%	11.2	10.0	112%	3.5%
Methylene Chloride	10.6	10.0	106%	10.2	10.0	102%	3.8%
Acetone	52.0	50.0	104%	49.0	50.0	98.0%	5.9%
Carbon Disulfide	11.5	10.0	115%	10.9	10.0	109%	5.4%
1,1-Dichloroethene	11.1	10.0	111%	10.5	10.0	105%	5.6%
1,1-Dichloroethane	10.9	10.0	109%	10.5	10.0	105%	3.7%
trans-1,2-Dichloroethene	10.6	10.0	106%	10.2	10.0	102%	3.8%
cis-1,2-Dichloroethene	10.6	10.0	106%	10.2	10.0	102%	3.8%
Chloroform	10.8	10.0	108%	10.3	10.0	103%	4.7%
1,2-Dichloroethane	10.8	10.0	108%	10.2	10.0	102%	5.7%
2-Butanone	51.6	50.0	103%	48.6	50.0	97.2%	6.0%
1,1,1-Trichloroethane	10.8	10.0	108%	10.5	10.0	105%	2.8%
Carbon Tetrachloride	11.3	10.0	113%	10.7	10.0	107%	5.5%
Vinyl Acetate	10.8	10.0	108%	10.0	10.0	100%	7.7%
Bromodichloromethane	10.8	10.0	108%	10.3	10.0	103%	4.7%
1,2-Dichloropropane	10.7	10.0	107%	10.2	10.0	102%	4.8%
cis-1,3-Dichloropropene	10.7	10.0	107%	10.1	10.0	101%	5.8%
Trichloroethene	10.2	10.0	102%	9.9	10.0	99.0%	3.0%
Dibromochloromethane	10.5	10.0	105%	9.9	10.0	99.0%	5.9%
1,1,2-Trichloroethane	10.1	10.0	101%	9.6	10.0	96.0%	5.1%
Benzene	10.9	10.0	109%	10.3	10.0	103%	5.7%
trans-1,3-Dichloropropene	10.7	10.0	107%	10.2	10.0	102%	4.8%
2-Chloroethylvinylether	10.7	10.0	107%	10.0	10.0	100%	6.8%
Bromoform	10.8	10.0	108%	9.9	10.0	99.0%	8.7%
4-Methyl-2-Pentanone (MIBK)	55.4	50.0	111%	50.9	50.0	102%	8.5%
2-Hexanone	54.4	50.0	109%	51.2	50.0	102%	6.1%
Tetrachloroethene	10.6	10.0	106%	10.0	10.0	100%	5.8%
1,1,2,2-Tetrachloroethane	10.6	10.0	106%	9.8	10.0	98.0%	7.8%
Toluene	10.6	10.0	106%	10.1	10.0	101%	4.8%
Chlorobenzene	10.7	10.0	107%	10.1	10.0	101%	5.8%
Ethylbenzene	10.9	10.0	109%	10.1	10.0	101%	7.6%
Styrene	11.4	10.0	114%	11.4	10.0	114%	0.0%
Trichlorofluoromethane	12.7 Q	10.0	127%	12.6 Q	10.0	126%	0.8%
1,1,2-Trichloro-1,2,2-trifluoroethane	11.4	10.0	114%	11.0	10.0	110%	3.6%
m,p-Xylene	23.1	20.0	116%	21.8	20.0	109%	5.8%
o-Xylene	11.1	10.0	111%	10.6	10.0	106%	4.6%
1,2-Dichlorobenzene	10.6	10.0	106%	9.9	10.0	99.0%	6.8%
1,3-Dichlorobenzene	10.7	10.0	107%	9.9	10.0	99.0%	7.8%
1,4-Dichlorobenzene	10.6	10.0	106%	9.9	10.0	99.0%	6.8%
Acrolein	54.1	50.0	108%	51.3	50.0	103%	5.3%
Methyl Iodide	11.4	10.0	114%	10.9	10.0	109%	4.5%
Bromoethane	11.1	10.0	111%	10.8	10.0	108%	2.7%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Page 2 of 2

Sample ID: LCS-080910

LAB CONTROL SAMPLE

Lab Sample ID: LCS-080910

LIMS ID: 10-18191

Matrix: Water

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Analyte	Spike		LCS	Spike		LCS	RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCS	Recovery	
Acrylonitrile	10.6	10.0	106%	10.0	10.0	100%	5.8%
1,1-Dichloropropene	10.7	10.0	107%	10.3	10.0	103%	3.8%
Dibromomethane	10.5	10.0	105%	10.0	10.0	100%	4.9%
1,1,1,2-Tetrachloroethane	11.2	10.0	112%	10.7	10.0	107%	4.6%
1,2-Dibromo-3-chloropropane	10.7	10.0	107%	9.9	10.0	99.0%	7.8%
1,2,3-Trichloropropane	10.4	10.0	104%	9.8	10.0	98.0%	5.9%
trans-1,4-Dichloro-2-butene	13.1 Q	10.0	131%	11.7 Q	10.0	117%	11.3%
1,3,5-Trimethylbenzene	11.4	10.0	114%	10.7	10.0	107%	6.3%
1,2,4-Trimethylbenzene	11.0	10.0	110%	10.4	10.0	104%	5.6%
Hexachlorobutadiene	10.7	10.0	107%	10.0	10.0	100%	6.8%
Ethylene Dibromide	10.0	10.0	100%	9.6	10.0	96.0%	4.1%
Bromochloromethane	10.6	10.0	106%	10.0	10.0	100%	5.8%
2,2-Dichloropropane	10.8	10.0	108%	10.5	10.0	105%	2.8%
1,3-Dichloropropane	10.5	10.0	105%	9.9	10.0	99.0%	5.9%
Isopropylbenzene	11.4	10.0	114%	10.6	10.0	106%	7.3%
n-Propylbenzene	11.1	10.0	111%	10.3	10.0	103%	7.5%
Bromobenzene	10.0	10.0	100%	9.4	10.0	94.0%	6.2%
2-Chlorotoluene	10.9	10.0	109%	10.1	10.0	101%	7.6%
4-Chlorotoluene	11.0	10.0	110%	10.2	10.0	102%	7.5%
tert-Butylbenzene	11.0	10.0	110%	10.3	10.0	103%	6.6%
sec-Butylbenzene	11.3	10.0	113%	10.6	10.0	106%	6.4%
4-Isopropyltoluene	11.2	10.0	112%	10.5	10.0	105%	6.5%
n-Butylbenzene	11.3	10.0	113%	10.6	10.0	106%	6.4%
1,2,4-Trichlorobenzene	10.5	10.0	105%	9.8	10.0	98.0%	6.9%
Naphthalene	10.8	10.0	108%	10.0	10.0	100%	7.7%
1,2,3-Trichlorobenzene	10.9	10.0	109%	10.0	10.0	100%	8.6%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.


Volatile Surrogate Recovery

	LCS	LCS
d4-1,2-Dichloroethane	106%	106%
d8-Toluene	99.5%	101%
Bromofluorobenzene	105%	107%
d4-1,2-Dichlorobenzene	102%	99.9%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: MB-080910
METHOD BLANK

Lab Sample ID: MB-080910
LIMS ID: 10-18191
Matrix: Water
Data Release Authorized: 
Reported: 08/10/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT10/PKC
Date Analyzed: 08/09/10 11:28

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-080910

Page 2 of 2

METHOD BLANK

Lab Sample ID: MB-080910

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18191

Project: Striker

Matrix: Water

025195.020.022

Date Analyzed: 08/09/10 11:28

CAS Number	Analyte	RL	Result	Q
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
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	98.3%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	103%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-080910

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-080910


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18193

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: NA

Reported: 08/11/10

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: 08/09/10 11:22

Purge Volume LCS: 5.0 mL

LCS: 08/09/10 11:49

LCS: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCS	LCS Recovery	RPD
Chloromethane	41.0 Q	50.0	82.0%	41.6 Q	50.0	83.2%	1.5%	
Bromomethane	64.4	50.0	129%	63.3	50.0	127%	1.7%	
Vinyl Chloride	46.1	50.0	92.2%	45.5	50.0	91.0%	1.3%	
Chloroethane	48.6	50.0	97.2%	47.9	50.0	95.8%	1.5%	
Methylene Chloride	41.3 Q	50.0	82.6%	42.6 Q	50.0	85.2%	3.1%	
Acetone	249	250	99.6%	254	250	102%	2.0%	
Carbon Disulfide	51.6	50.0	103%	51.4	50.0	103%	0.4%	
1,1-Dichloroethene	47.5	50.0	95.0%	48.1	50.0	96.2%	1.3%	
1,1-Dichloroethane	49.6	50.0	99.2%	50.0	50.0	100%	0.8%	
trans-1,2-Dichloroethene	46.9	50.0	93.8%	48.1	50.0	96.2%	2.5%	
cis-1,2-Dichloroethene	48.1	50.0	96.2%	49.3	50.0	98.6%	2.5%	
Chloroform	48.2	50.0	96.4%	48.8	50.0	97.6%	1.2%	
1,2-Dichloroethane	50.6	50.0	101%	50.2	50.0	100%	0.8%	
2-Butanone	270	250	108%	271	250	108%	0.4%	
1,1,1-Trichloroethane	46.5	50.0	93.0%	46.6	50.0	93.2%	0.2%	
Carbon Tetrachloride	46.4	50.0	92.8%	45.1	50.0	90.2%	2.8%	
Vinyl Acetate	56.3	50.0	113%	56.7	50.0	113%	0.7%	
Bromodichloromethane	49.2	50.0	98.4%	49.5	50.0	99.0%	0.6%	
1,2-Dichloropropane	47.9	50.0	95.8%	47.6	50.0	95.2%	0.6%	
cis-1,3-Dichloropropene	52.9	50.0	106%	52.8	50.0	106%	0.2%	
Trichloroethene	47.4	50.0	94.8%	46.8	50.0	93.6%	1.3%	
Dibromochloromethane	48.8	50.0	97.6%	46.6	50.0	93.2%	4.6%	
1,1,2-Trichloroethane	49.6	50.0	99.2%	50.0	50.0	100%	0.8%	
Benzene	50.1	50.0	100%	48.6	50.0	97.2%	3.0%	
trans-1,3-Dichloropropene	51.9	50.0	104%	51.7	50.0	103%	0.4%	
2-Chloroethylvinylether	55.8	50.0	112%	53.8	50.0	108%	3.6%	
Bromoform	49.5	50.0	99.0%	44.4	50.0	88.8%	10.9%	
4-Methyl-2-Pentanone (MIBK)	258	250	103%	249	250	99.6%	3.6%	
2-Hexanone	248	250	99.2%	231	250	92.4%	7.1%	
Tetrachloroethene	46.2	50.0	92.4%	43.3	50.0	86.6%	6.5%	
1,1,2,2-Tetrachloroethane	48.0	50.0	96.0%	44.8	50.0	89.6%	6.9%	
Toluene	47.1	50.0	94.2%	46.6	50.0	93.2%	1.1%	
Chlorobenzene	48.1	50.0	96.2%	46.3	50.0	92.6%	3.8%	
Ethylbenzene	52.4	50.0	105%	49.8	50.0	99.6%	5.1%	
Styrene	54.6	50.0	109%	52.4	50.0	105%	4.1%	
Trichlorofluoromethane	49.4	50.0	98.8%	50.0	50.0	100%	1.2%	
1,1,2-Trichloro-1,2,2-trifluoroethane	47.0	50.0	94.0%	47.6	50.0	95.2%	1.3%	
m,p-Xylene	110	100	110%	104	100	104%	5.6%	
o-Xylene	51.3	50.0	103%	49.2	50.0	98.4%	4.2%	
1,2-Dichlorobenzene	51.1	50.0	102%	50.2	50.0	100%	1.8%	
1,3-Dichlorobenzene	53.6	50.0	107%	52.3	50.0	105%	2.5%	
1,4-Dichlorobenzene	52.8	50.0	106%	51.0	50.0	102%	3.5%	

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-080910

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-080910

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18193

Project: Striker

Matrix: Soil

025195.020.022

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrolein	243	250	97.2%	241	250	96.4%	0.8%
Methyl Iodide	56.5	50.0	113%	56.7	50.0	113%	0.4%
Bromoethane	48.7	50.0	97.4%	48.5	50.0	97.0%	0.4%
Acrylonitrile	54.2	50.0	108%	54.0	50.0	108%	0.4%
1,1-Dichloropropene	49.8	50.0	99.6%	47.7	50.0	95.4%	4.3%
Dibromomethane	50.2	50.0	100%	49.1	50.0	98.2%	2.2%
1,1,1,2-Tetrachloroethane	43.5 Q	50.0	87.0%	42.2 Q	50.0	84.4%	3.0%
1,2-Dibromo-3-chloropropane	50.8	50.0	102%	47.3	50.0	94.6%	7.1%
1,2,3-Trichloropropane	50.8	50.0	102%	46.2	50.0	92.4%	9.5%
trans-1,4-Dichloro-2-butene	57.0	50.0	114%	52.2	50.0	104%	8.8%
1,3,5-Trimethylbenzene	57.5	50.0	115%	54.6	50.0	109%	5.2%
1,2,4-Trimethylbenzene	57.7	50.0	115%	55.0	50.0	110%	4.8%
Hexachlorobutadiene	50.2	50.0	100%	48.8	50.0	97.6%	2.8%
Ethylene Dibromide	50.1	50.0	100%	49.7	50.0	99.4%	0.8%
Bromochloromethane	48.3	50.0	96.6%	50.4	50.0	101%	4.3%
2,2-Dichloropropane	48.6	50.0	97.2%	48.3	50.0	96.6%	0.6%
1,3-Dichloropropane	51.1	50.0	102%	48.4	50.0	96.8%	5.4%
Isopropylbenzene	56.2	50.0	112%	51.9	50.0	104%	8.0%
n-Propylbenzene	54.0	50.0	108%	50.6	50.0	101%	6.5%
Bromobenzene	48.8	50.0	97.6%	46.8	50.0	93.6%	4.2%
2-Chlorotoluene	55.1	50.0	110%	49.0	50.0	98.0%	11.7%
4-Chlorotoluene	53.6	50.0	107%	53.2	50.0	106%	0.7%
tert-Butylbenzene	58.0	50.0	116%	54.9	50.0	110%	5.5%
sec-Butylbenzene	55.0	50.0	110%	51.7	50.0	103%	6.2%
4-Isopropyltoluene	60.0	50.0	120%	57.1	50.0	114%	5.0%
n-Butylbenzene	59.7	50.0	119%	57.9	50.0	116%	3.1%
1,2,4-Trichlorobenzene	51.4	50.0	103%	53.0	50.0	106%	3.1%
Naphthalene	49.6	50.0	99.2%	50.8	50.0	102%	2.4%
1,2,3-Trichlorobenzene	46.6	50.0	93.2%	50.1	50.0	100%	7.2%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	92.0%	110%
d8-Toluene	103%	105%
Bromofluorobenzene	101%	101%
d4-1,2-Dichlorobenzene	98.2%	99.7%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-080910

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METHOD BLANK

Lab Sample ID: MB-080910


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18193

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: NA

Reported: 08/11/10

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 08/09/10 12:16

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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

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Sample ID: MB-080910

METHOD BLANK

Lab Sample ID: MB-080910

LIMS ID: 10-18193

Matrix: Soil

Date Analyzed: 08/09/10 12:16

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

CAS Number	Analyte	RL	Result	Q
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
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 µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	118%
d8-Toluene	104%
Bromofluorobenzene	96.7%
d4-1,2-Dichlorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-081010

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-081010


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18196

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: NA

Reported: 08/11/10

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 100 mg-dry-wt

LCSD: FINN5/PAB

LCSD: 100 mg-dry-wt

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

Purge Volume LCS: 5.0 mL

LCSD: 08/10/10 11:37

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	2120	2500	84.8%	1930	2500	77.2%	9.4%
Bromomethane	3220 Q	2500	129%	2850 Q	2500	114%	12.2%
Vinyl Chloride	2390	2500	95.6%	2090	2500	83.6%	13.4%
Chloroethane	2460	2500	98.4%	2170	2500	86.8%	12.5%
Methylene Chloride	2220	2500	88.8%	2080	2500	83.2%	6.5%
Acetone	13400	12500	107%	13700	12500	110%	2.2%
Carbon Disulfide	2710	2500	108%	2460	2500	98.4%	9.7%
1,1-Dichloroethene	2530	2500	101%	2290	2500	91.6%	10.0%
1,1-Dichloroethane	2600	2500	104%	2410	2500	96.4%	7.6%
trans-1,2-Dichloroethene	2560	2500	102%	2300	2500	92.0%	10.7%
cis-1,2-Dichloroethene	2620	2500	105%	2390	2500	95.6%	9.2%
Chloroform	2480	2500	99.2%	2310	2500	92.4%	7.1%
1,2-Dichloroethane	2470	2500	98.8%	2410	2500	96.4%	2.5%
2-Butanone	14300	12500	114%	14400	12500	115%	0.7%
1,1,1-Trichloroethane	2300	2500	92.0%	2100	2500	84.0%	9.1%
Carbon Tetrachloride	2270	2500	90.8%	2060	2500	82.4%	9.7%
Vinyl Acetate	2850	2500	114%	2820	2500	113%	1.1%
Bromodichloromethane	2420	2500	96.8%	2270	2500	90.8%	6.4%
1,2-Dichloropropane	2350	2500	94.0%	2270	2500	90.8%	3.5%
cis-1,3-Dichloropropene	2550	2500	102%	2430	2500	97.2%	4.8%
Trichloroethene	2420	2500	96.8%	2180	2500	87.2%	10.4%
Dibromochloromethane	2290	2500	91.6%	2310	2500	92.4%	0.9%
1,1,2-Trichloroethane	2520	2500	101%	2480	2500	99.2%	1.6%
Benzene	2500	2500	100%	2360	2500	94.4%	5.8%
trans-1,3-Dichloropropene	2490	2500	99.6%	2390	2500	95.6%	4.1%
2-Chloroethylvinylether	2810	2500	112%	2780	2500	111%	1.1%
Bromoform	2300	2500	92.0%	2400	2500	96.0%	4.3%
4-Methyl-2-Pentanone (MIBK)	13000	12500	104%	12900	12500	103%	0.8%
2-Hexanone	11900	12500	95.2%	12400	12500	99.2%	4.1%
Tetrachloroethene	2170	2500	86.8%	2060	2500	82.4%	5.2%
1,1,2,2-Tetrachloroethane	2370	2500	94.8%	2450	2500	98.0%	3.3%
Toluene	2370	2500	94.8%	2170	2500	86.8%	8.8%
Chlorobenzene	2320	2500	92.8%	2220	2500	88.8%	4.4%
Ethylbenzene	2490	2500	99.6%	2360	2500	94.4%	5.4%
Styrene	2660	2500	106%	2540	2500	102%	4.6%
Trichlorofluoromethane	2520	2500	101%	2270	2500	90.8%	10.4%
1,1,2-Trichloro-1,2,2-trifluoroethane	2470	2500	98.8%	2190	2500	87.6%	12.0%
m,p-Xylene	5250	5000	105%	5000	5000	100%	4.9%
o-Xylene	2490	2500	99.6%	2360	2500	94.4%	5.4%
1,2-Dichlorobenzene	2540	2500	102%	2460	2500	98.4%	3.2%
1,3-Dichlorobenzene	2690	2500	108%	2580	2500	103%	4.2%
1,4-Dichlorobenzene	2650	2500	106%	2550	2500	102%	3.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

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Sample ID: LCS-081010

LAB CONTROL SAMPLE

Lab Sample ID: LCS-081010

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18196

Project: Striker

Matrix: Soil

025195.020.022

Analyte	Spike		LCS		Spike		LCSD		RPD
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	RPD		
Acrolein	12900	12500	103%	12800	12500	102%	0.8%		
Methyl Iodide	2800 Q	2500	112%	2670 Q	2500	107%	4.8%		
Bromoethane	2510	2500	100%	2350	2500	94.0%	6.6%		
Acrylonitrile	2930	2500	117%	2970	2500	119%	1.4%		
1,1-Dichloropropene	2480	2500	99.2%	2220	2500	88.8%	11.1%		
Dibromomethane	2490	2500	99.6%	2400	2500	96.0%	3.7%		
1,1,1,2-Tetrachloroethane	2040	2500	81.6%	1980	2500	79.2%	3.0%		
1,2-Dibromo-3-chloropropane	2380	2500	95.2%	2370	2500	94.8%	0.4%		
1,2,3-Trichloropropane	2430	2500	97.2%	2500	2500	100%	2.8%		
trans-1,4-Dichloro-2-butene	2810	2500	112%	2880	2500	115%	2.5%		
1,3,5-Trimethylbenzene	2780	2500	111%	2640	2500	106%	5.2%		
1,2,4-Trimethylbenzene	2810	2500	112%	2670	2500	107%	5.1%		
Hexachlorobutadiene	2570	2500	103%	2200	2500	88.0%	15.5%		
Ethylene Dibromide	2490	2500	99.6%	2380	2500	95.2%	4.5%		
Bromochloromethane	2570	2500	103%	2420	2500	96.8%	6.0%		
2,2-Dichloropropane	2290	2500	91.6%	2060	2500	82.4%	10.6%		
1,3-Dichloropropane	2440	2500	97.6%	2460	2500	98.4%	0.8%		
Isopropylbenzene	2650	2500	106%	2560	2500	102%	3.5%		
n-Propylbenzene	2570	2500	103%	2470	2500	98.8%	4.0%		
Bromobenzene	2370	2500	94.8%	2340	2500	93.6%	1.3%		
2-Chlorotoluene	2450	2500	98.0%	2460	2500	98.4%	0.4%		
4-Chlorotoluene	2810 Q	2500	112%	2580 Q	2500	103%	8.5%		
tert-Butylbenzene	2760	2500	110%	2660	2500	106%	3.7%		
sec-Butylbenzene	2660	2500	106%	2500	2500	100%	6.2%		
4-Isopropyltoluene	2930 Q	2500	117%	2720 Q	2500	109%	7.4%		
n-Butylbenzene	3030 Q	2500	121%	2720 Q	2500	109%	10.8%		
1,2,4-Trichlorobenzene	2680	2500	107%	2440	2500	97.6%	9.4%		
Naphthalene	2570	2500	103%	2490	2500	99.6%	3.2%		
1,2,3-Trichlorobenzene	2490	2500	99.6%	2310	2500	92.4%	7.5%		

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	107%	107%
d8-Toluene	102%	102%
Bromofluorobenzene	98.5%	99.2%
d4-1,2-Dichlorobenzene	101%	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-081010

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METHOD BLANK

Lab Sample ID: MB-081010


QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18196

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: NA

Reported: 08/11/10

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 100 mg-dry-wt

Date Analyzed: 08/10/10 12:06

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	50	< 50	U
74-83-9	Bromomethane	50	< 50	U
75-01-4	Vinyl Chloride	50	< 50	U
75-00-3	Chloroethane	50	< 50	U
75-09-2	Methylene Chloride	100	< 100	U
67-64-1	Acetone	250	< 250	U
75-15-0	Carbon Disulfide	50	< 50	U
75-35-4	1,1-Dichloroethene	50	< 50	U
75-34-3	1,1-Dichloroethane	50	< 50	U
156-60-5	trans-1,2-Dichloroethene	50	< 50	U
156-59-2	cis-1,2-Dichloroethene	50	< 50	U
67-66-3	Chloroform	50	< 50	U
107-06-2	1,2-Dichloroethane	50	< 50	U
78-93-3	2-Butanone	250	< 250	U
71-55-6	1,1,1-Trichloroethane	50	< 50	U
56-23-5	Carbon Tetrachloride	50	< 50	U
108-05-4	Vinyl Acetate	250	< 250	U
75-27-4	Bromodichloromethane	50	< 50	U
78-87-5	1,2-Dichloropropane	50	< 50	U
10061-01-5	cis-1,3-Dichloropropene	50	< 50	U
79-01-6	Trichloroethene	50	< 50	U
124-48-1	Dibromochloromethane	50	< 50	U
79-00-5	1,1,2-Trichloroethane	50	< 50	U
71-43-2	Benzene	50	< 50	U
10061-02-6	trans-1,3-Dichloropropene	50	< 50	U
110-75-8	2-Chloroethylvinylether	250	< 250	U
75-25-2	Bromoform	50	< 50	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	250	< 250	U
591-78-6	2-Hexanone	250	< 250	U
127-18-4	Tetrachloroethene	50	< 50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	< 50	U
108-88-3	Toluene	50	< 50	U
108-90-7	Chlorobenzene	50	< 50	U
100-41-4	Ethylbenzene	50	< 50	U
100-42-5	Styrene	50	< 50	U
75-69-4	Trichlorofluoromethane	50	< 50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	100	< 100	U
179601-23-1	m,p-Xylene	50	< 50	U
95-47-6	o-Xylene	50	< 50	U
95-50-1	1,2-Dichlorobenzene	50	< 50	U
541-73-1	1,3-Dichlorobenzene	50	< 50	U
106-46-7	1,4-Dichlorobenzene	50	< 50	U
107-02-8	Acrolein	2,500	< 2,500	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: MB-081010
METHOD BLANK

Lab Sample ID: MB-081010
LIMS ID: 10-18196
Matrix: Soil
Date Analyzed: 08/10/10 12:06

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	50	< 50	U
74-96-4	Bromoethane	100	< 100	U
107-13-1	Acrylonitrile	250	< 250	U
563-58-6	1,1-Dichloropropene	50	< 50	U
74-95-3	Dibromomethane	50	< 50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	< 50	U
96-12-8	1,2-Dibromo-3-chloropropane	250	< 250	U
96-18-4	1,2,3-Trichloropropane	100	< 100	U
110-57-6	trans-1,4-Dichloro-2-butene	250	< 250	U
108-67-8	1,3,5-Trimethylbenzene	50	< 50	U
95-63-6	1,2,4-Trimethylbenzene	50	< 50	U
87-68-3	Hexachlorobutadiene	250	< 250	U
106-93-4	Ethylene Dibromide	50	< 50	U
74-97-5	Bromochloromethane	50	< 50	U
594-20-7	2,2-Dichloropropane	50	< 50	U
142-28-9	1,3-Dichloropropane	50	< 50	U
98-82-8	Isopropylbenzene	50	< 50	U
103-65-1	n-Propylbenzene	50	< 50	U
108-86-1	Bromobenzene	50	< 50	U
95-49-8	2-Chlorotoluene	50	< 50	U
106-43-4	4-Chlorotoluene	50	< 50	U
98-06-6	tert-Butylbenzene	50	< 50	U
135-98-8	sec-Butylbenzene	50	< 50	U
99-87-6	4-Isopropyltoluene	50	< 50	U
104-51-8	n-Butylbenzene	50	< 50	U
120-82-1	1,2,4-Trichlorobenzene	250	< 250	U
91-20-3	Naphthalene	250	< 250	U
87-61-6	1,2,3-Trichlorobenzene	250	< 250	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	102%
Bromofluorobenzene	93.1%
d4-1,2-Dichlorobenzene	100%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-4-GW-100729
SAMPLE

Lab Sample ID: RG52A
LIMS ID: 10-18191
Matrix: Water
Data Release Authorized:
Reported: 08/13/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted: 08/02/10
Date Analyzed: 08/05/10 01:27
Instrument/Analyst: NT4/JZ

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	1.0	< 1.0 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

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Sample ID: KSC-DP-4-GW-100729
SAMPLE

Lab Sample ID: RG52A
LIMS ID: 10-18191
Matrix: Water
Date Analyzed: 08/05/10 01:27

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

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	5.0	< 5.0 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	1.1
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	80.0%	2-Fluorobiphenyl	80.8%
d14-p-Terphenyl	75.6%	d4-1,2-Dichlorobenzene	70.8%
d5-Phenol	92.5%	2-Fluorophenol	81.3%
2,4,6-Tribromophenol	88.5%	d4-2-Chlorophenol	84.3%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-9-GW-100729
SAMPLE

Lab Sample ID: RG52B
LIMS ID: 10-18192
Matrix: Water
Data Release Authorized: 
Reported: 08/05/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted: 08/02/10
Date Analyzed: 08/05/10 02:01
Instrument/Analyst: NT4/JZ

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	1.0	< 1.0 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: RG52B
 LIMS ID: 10-18192
 Matrix: Water
 Date Analyzed: 08/05/10 02:01

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022

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	5.0	< 5.0 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	76.8%	2-Fluorobiphenyl	79.6%
d14-p-Terphenyl	64.0%	d4-1,2-Dichlorobenzene	67.2%
d5-Phenol	84.0%	2-Fluorophenol	72.3%
2,4,6-Tribromophenol	90.9%	d4-2-Chlorophenol	78.7%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-7-S-3.5-4-100729
SAMPLE

Lab Sample ID: RG52C
LIMS ID: 10-18193
Matrix: Soil
Data Release Authorized:
Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted: 08/06/10
Date Analyzed: 08/12/10 00:11
Instrument/Analyst: NT6/JZ
GPC Cleanup: No

Sample Amount: 8.06 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 11.1%

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	310	< 310 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
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

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-7-S-3.5-4-100729
SAMPLE

Lab Sample ID: RG52C
LIMS ID: 10-18193
Matrix: Soil
Date Analyzed: 08/12/10 00:11

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result
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 µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	57.6%	2-Fluorobiphenyl	56.4%
d14-p-Terphenyl	60.8%	d4-1,2-Dichlorobenzene	59.2%
d5-Phenol	56.8%	2-Fluorophenol	55.7%
2,4,6-Tribromophenol	62.7%	d4-2-Chlorophenol	57.1%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-8-S-4.5-5-100729
SAMPLE

Lab Sample ID: RG52D
LIMS ID: 10-18194
Matrix: Soil
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted: 08/06/10
Date Analyzed: 08/12/10 00:43
Instrument/Analyst: NT6/JZ
GPC Cleanup: No

Sample Amount: 8.04 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 11.0%

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	310	< 310 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
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

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-8-S-4.5-5-100729
SAMPLE

Lab Sample ID: RG52D
LIMS ID: 10-18194
Matrix: Soil
Date Analyzed: 08/12/10 00:43

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result
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 µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	48.8%	2-Fluorobiphenyl	47.6%
d14-p-Terphenyl	51.6%	d4-1,2-Dichlorobenzene	51.6%
d5-Phenol	48.8%	2-Fluorophenol	48.5%
2,4,6-Tribromophenol	47.7%	d4-2-Chlorophenol	49.9%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-9-S-5.5-6-100729
SAMPLE

Lab Sample ID: RG52E
LIMS ID: 10-18195
Matrix: Soil
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted: 08/06/10
Date Analyzed: 08/12/10 01:16
Instrument/Analyst: NT6/JZ
GPC Cleanup: No

Sample Amount: 8.12 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 9.9%

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	310	< 310 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
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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-9-S-5.5-6-100729
SAMPLE

Lab Sample ID: RG52E
LIMS ID: 10-18195
Matrix: Soil
Date Analyzed: 08/12/10 01:16

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result
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 µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	47.6%	2-Fluorobiphenyl	52.0%
d14-p-Terphenyl	51.6%	d4-1,2-Dichlorobenzene	52.0%
d5-Phenol	50.7%	2-Fluorophenol	50.4%
2,4,6-Tribromophenol	58.9%	d4-2-Chlorophenol	52.0%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-3-S-7-8-100729
SAMPLE

Lab Sample ID: RG52F
LIMS ID: 10-18196
Matrix: Soil
Data Release Authorized:
Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted: 08/06/10
Date Analyzed: 08/12/10 01:49
Instrument/Analyst: NT6/JZ
GPC Cleanup: No

Sample Amount: 5.10 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 15.5%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	98	< 98 U
111-44-4	Bis-(2-Chloroethyl) Ether	98	< 98 U
95-57-8	2-Chlorophenol	98	< 98 U
541-73-1	1,3-Dichlorobenzene	98	< 98 U
106-46-7	1,4-Dichlorobenzene	98	< 98 U
100-51-6	Benzyl Alcohol	490	< 490 U
95-50-1	1,2-Dichlorobenzene	98	< 98 U
95-48-7	2-Methylphenol	98	< 98 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	98	< 98 U
106-44-5	4-Methylphenol	98	< 98 U
621-64-7	N-Nitroso-Di-N-Propylamine	490	< 490 U
67-72-1	Hexachloroethane	98	< 98 U
98-95-3	Nitrobenzene	98	< 98 U
78-59-1	Isophorone	98	< 98 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	98	< 98 U
65-85-0	Benzoic Acid	980	< 980 U
111-91-1	bis(2-Chloroethoxy) Methane	98	< 98 U
120-83-2	2,4-Dichlorophenol	490	< 490 U
120-82-1	1,2,4-Trichlorobenzene	98	< 98 U
91-20-3	Naphthalene	98	660
106-47-8	4-Chloroaniline	490	< 490 U
87-68-3	Hexachlorobutadiene	98	< 98 U
59-50-7	4-Chloro-3-methylphenol	490	< 490 U
91-57-6	2-Methylnaphthalene	98	1,600
77-47-4	Hexachlorocyclopentadiene	490	< 490 U
88-06-2	2,4,6-Trichlorophenol	490	< 490 U
95-95-4	2,4,5-Trichlorophenol	490	< 490 U
91-58-7	2-Chloronaphthalene	98	< 98 U
88-74-4	2-Nitroaniline	490	< 490 U
131-11-3	Dimethylphthalate	98	< 98 U
208-96-8	Acenaphthylene	98	< 98 U
99-09-2	3-Nitroaniline	490	< 490 U
83-32-9	Acenaphthene	98	< 98 U
51-28-5	2,4-Dinitrophenol	980	< 980 U
100-02-7	4-Nitrophenol	490	< 490 U
132-64-9	Dibenzofuran	98	330
606-20-2	2,6-Dinitrotoluene	490	< 490 U
121-14-2	2,4-Dinitrotoluene	490	< 490 U
84-66-2	Diethylphthalate	98	< 98 U
7005-72-3	4-Chlorophenyl-phenylether	98	< 98 U
86-73-7	Fluorene	98	840
100-01-6	4-Nitroaniline	490	< 490 U
534-52-1	4,6-Dinitro-2-Methylphenol	980	< 980 U

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-3-S-7-8-100729
SAMPLE

Lab Sample ID: RG52F
LIMS ID: 10-18196
Matrix: Soil
Date Analyzed: 08/12/10 01:49

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

CAS Number	Analyte	RL	Result
86-30-6	N-Nitrosodiphenylamine	98	< 98 U
101-55-3	4-Bromophenyl-phenylether	98	< 98 U
118-74-1	Hexachlorobenzene	98	< 98 U
87-86-5	Pentachlorophenol	490	< 490 U
85-01-8	Phenanthrene	98	1,500
86-74-8	Carbazole	98	< 98 U
120-12-7	Anthracene	98	< 98 U
84-74-2	Di-n-Butylphthalate	98	< 98 U
206-44-0	Fluoranthene	98	< 98 U
129-00-0	Pyrene	98	130
85-68-7	Butylbenzylphthalate	98	< 98 U
91-94-1	3,3'-Dichlorobenzidine	490	< 490 U
56-55-3	Benzo(a)anthracene	98	< 98 U
117-81-7	bis(2-Ethylhexyl)phthalate	98	< 98 U
218-01-9	Chrysene	98	< 98 U
117-84-0	Di-n-Octyl phthalate	98	< 98 U
205-99-2	Benzo(b)fluoranthene	98	< 98 U
207-08-9	Benzo(k)fluoranthene	98	< 98 U
50-32-8	Benzo(a)pyrene	98	< 98 U
193-39-5	Indeno(1,2,3-cd)pyrene	98	< 98 U
53-70-3	Dibenz(a,h)anthracene	98	< 98 U
191-24-2	Benzo(g,h,i)perylene	98	< 98 U
90-12-0	1-Methylnaphthalene	98	3,400

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.8%	2-Fluorobiphenyl	66.0%
d14-p-Terphenyl	60.8%	d4-1,2-Dichlorobenzene	60.4%
d5-Phenol	59.5%	2-Fluorophenol	60.0%
2,4,6-Tribromophenol	80.0%	d4-2-Chlorophenol	60.3%

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-080210	85.6%	82.0%	80.4%	69.2%	98.4%	86.1%	95.7%	89.6%		0
LCS-080210	94.0%	95.2%	84.8%	79.6%	110%*	97.1%	108%	100%*		2
LCSD-080210	87.6%	85.2%	79.6%	72.4%	98.4%	82.9%	99.5%	89.9%		0
KSC-DP-4-GW-100729	80.0%	80.8%	75.6%	70.8%	92.5%	81.3%	88.5%	84.3%		0
KSC-DP-9-GW-100729	76.8%	79.6%	64.0%	67.2%	84.0%	72.3%	90.9%	78.7%		0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(46-100)	(39-100)
(FBP) = 2-Fluorobiphenyl	(49-100)	(42-100)
(TPH) = d14-p-Terphenyl	(53-119)	(26-114)
(DCB) = d4-1,2-Dichlorobenzene	(38-100)	(32-100)
(PHL) = d5-Phenol	(50-100)	(41-100)
(2FP) = 2-Fluorophenol	(46-100)	(38-100)
(TBP) = 2,4,6-Tribromophenol	(52-123)	(48-118)
(2CP) = d4-2-Chlorophenol	(53-100)	(44-100)

Prep Method: SW3520C
Log Number Range: 10-18191 to 10-18192

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022


<u>Client ID</u>	<u>NBZ</u>	<u>FBP</u>	<u>TPH</u>	<u>DCB</u>	<u>PHL</u>	<u>2FP</u>	<u>TBP</u>	<u>2CP</u>	<u>TOT</u>	<u>OUT</u>
MB-080610	74.0%	72.8%	86.0%	75.2%	76.8%	75.5%	87.5%	74.1%	0	
LCS-080610	78.4%	75.6%	88.8%	80.4%	76.8%	77.9%	91.5%	75.5%	0	
LCSD-080610	72.0%	70.4%	84.4%	74.4%	70.7%	73.1%	84.3%	69.6%	0	
KSC-DP-7-S-3.5-4-1	57.6%	56.4%	60.8%	59.2%	56.8%	55.7%	62.7%	57.1%	0	
KSC-DP-8-S-4.5-5-1	48.8%	47.6%	51.6%	51.6%	48.8%	48.5%	47.7%	49.9%	0	
KSC-DP-9-S-5.5-6-1	47.6%	52.0%	51.6%	52.0%	50.7%	50.4%	58.9%	52.0%	0	
KSC-DP-3-S-7-8-100	62.8%	66.0%	60.8%	60.4%	59.5%	60.0%	80.0%	60.3%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(46-102)	(32-106)
(FBP) = 2-Fluorobiphenyl	(51-105)	(39-107)
(TPH) = d14-p-Terphenyl	(55-124)	(31-130)
(DCB) = d4-1,2-Dichlorobenzene	(48-104)	(38-102)
(PHL) = d5-Phenol	(44-110)	(27-112)
(2FP) = 2-Fluorophenol	(38-112)	(22-108)
(TBP) = 2,4,6-Tribromophenol	(54-120)	(31-131)
(2CP) = d4-2-Chlorophenol	(50-103)	(36-104)

Prep Method: SW3546
Log Number Range: 10-18193 to 10-18196

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: LCS-080210
LCS/LCSD

Lab Sample ID: LCS-080210
LIMS ID: 10-18191
Matrix: Water
Data Release Authorized: 
Reported: 08/05/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted LCS/LCSD: 08/02/10

Sample Amount LCS: 500 mL
LCSD: 500 mL

Date Analyzed LCS: 08/04/10 23:47
LCSD: 08/05/10 00:20

Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/JZ
LCSD: NT4/JZ

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	LCSD	RPD
Phenol	19.6	25.0	78.4%	18.2	25.0	72.8%	7.4%		
Bis-(2-Chloroethyl) Ether	21.5	25.0	86.0%	20.1	25.0	80.4%	6.7%		
2-Chlorophenol	20.6	25.0	82.4%	19.0	25.0	76.0%	8.1%		
1,3-Dichlorobenzene	15.1	25.0	60.4%	14.3	25.0	57.2%	5.4%		
1,4-Dichlorobenzene	15.3	25.0	61.2%	14.6	25.0	58.4%	4.7%		
Benzyl Alcohol	54.9	50.0	110%	51.0	50.0	102%	7.4%		
1,2-Dichlorobenzene	16.2	25.0	64.8%	15.3	25.0	61.2%	5.7%		
2-Methylphenol	20.5	25.0	82.0%	19.3	25.0	77.2%	6.0%		
2,2'-Oxybis(1-Chloropropane)	21.3	25.0	85.2%	20.0	25.0	80.0%	6.3%		
4-Methylphenol	39.9	50.0	79.8%	37.2	50.0	74.4%	7.0%		
N-Nitroso-Di-N-Propylamine	19.2	25.0	76.8%	18.2	25.0	72.8%	5.3%		
Hexachloroethane	13.4	25.0	53.6%	12.6	25.0	50.4%	6.2%		
Nitrobenzene	20.9	25.0	83.6%	20.0	25.0	80.0%	4.4%		
Isophorone	24.0	25.0	96.0%	22.9	25.0	91.6%	4.7%		
2-Nitrophenol	23.1	25.0	92.4%	21.7	25.0	86.8%	6.2%		
2,4-Dimethylphenol	15.5	25.0	62.0%	14.7	25.0	58.8%	5.3%		
Benzoic Acid	75.9	75.0	101%	63.1	75.0	84.1%	18.4%		
bis(2-Chloroethoxy) Methane	21.7	25.0	86.8%	20.4	25.0	81.6%	6.2%		
2,4-Dichlorophenol	21.9	25.0	87.6%	20.3	25.0	81.2%	7.6%		
1,2,4-Trichlorobenzene	16.7	25.0	66.8%	16.0	25.0	64.0%	4.3%		
Naphthalene	20.7	25.0	82.8%	19.6	25.0	78.4%	5.5%		
4-Chloroaniline	59.5	60.0	99.2%	55.6	60.0	92.7%	6.8%		
Hexachlorobutadiene	14.1	25.0	56.4%	13.4	25.0	53.6%	5.1%		
4-Chloro-3-methylphenol	22.4	25.0	89.6%	21.1	25.0	84.4%	6.0%		
2-Methylnaphthalene	20.4	25.0	81.6%	19.2	25.0	76.8%	6.1%		
Hexachlorocyclopentadiene	33.9	75.0	45.2%	34.3	75.0	45.7%	1.2%		
2,4,6-Trichlorophenol	23.1	25.0	92.4%	21.1	25.0	84.4%	9.0%		
2,4,5-Trichlorophenol	23.9	25.0	95.6%	21.9	25.0	87.6%	8.7%		
2-Chloronaphthalene	20.5	25.0	82.0%	18.9	25.0	75.6%	8.1%		
2-Nitroaniline	26.4	25.0	106%	24.2	25.0	96.8%	8.7%		
Dimethylphthalate	21.9	25.0	87.6%	20.3	25.0	81.2%	7.6%		
Acenaphthylene	21.6	25.0	86.4%	20.0	25.0	80.0%	7.7%		
3-Nitroaniline	73.8	64.0	115%	70.2	64.0	110%	5.0%		
Acenaphthene	20.8	25.0	83.2%	19.3	25.0	77.2%	7.5%		
2,4-Dinitrophenol	117	75.0	156%	112	75.0	149%	4.4%		
4-Nitrophenol	19.8	25.0	79.2%	17.7	25.0	70.8%	11.2%		
Dibenzofuran	22.9	25.0	91.6%	21.2	25.0	84.8%	7.7%		
2,6-Dinitrotoluene	23.5	25.0	94.0%	21.9	25.0	87.6%	7.0%		
2,4-Dinitrotoluene	24.0	25.0	96.0%	22.6	25.0	90.4%	6.0%		
Diethylphthalate	21.5	25.0	86.0%	20.2	25.0	80.8%	6.2%		
4-Chlorophenyl-phenylether	21.8	25.0	87.2%	20.5	25.0	82.0%	6.1%		
Fluorene	21.9	25.0	87.6%	20.7	25.0	82.8%	5.6%		
4-Nitroaniline	23.8	25.0	95.2%	22.7	25.0	90.8%	4.7%		
4,6-Dinitro-2-Methylphenol	103	75.0	137%	94.3	75.0	126%	8.8%		
N-Nitrosodiphenylamine	20.6	25.0	82.4%	19.1	25.0	76.4%	7.6%		

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: LCS-080210
LCS/LCSD

Lab Sample ID: LCS-080210
LIMS ID: 10-18191
Matrix: Water
Date Analyzed LCS: 08/04/10 23:47
LCSD: 08/05/10 00:20

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	23.5	25.0	94.0%	21.7	25.0	86.8%	8.0%
Hexachlorobenzene	23.0	25.0	92.0%	21.1	25.0	84.4%	8.6%
Pentachlorophenol	21.5	25.0	86.0%	19.1	25.0	76.4%	11.8%
Phenanthrene	23.0	25.0	92.0%	21.2	25.0	84.8%	8.1%
Carbazole	22.4	25.0	89.6%	20.9	25.0	83.6%	6.9%
Anthracene	21.9	25.0	87.6%	20.4	25.0	81.6%	7.1%
Di-n-Butylphthalate	23.7	25.0	94.8%	21.2	25.0	84.8%	11.1%
Fluoranthene	24.5	25.0	98.0%	21.7	25.0	86.8%	12.1%
Pyrene	19.4	25.0	77.6%	18.4	25.0	73.6%	5.3%
Butylbenzylphthalate	19.0	25.0	76.0%	17.7	25.0	70.8%	7.1%
3,3'-Dichlorobenzidine	40.6	64.0	63.4%	44.2	64.0	69.1%	8.5%
Benzo(a)anthracene	19.6	25.0	78.4%	18.2	25.0	72.8%	7.4%
bis(2-Ethylhexyl)phthalate	23.0	25.0	92.0%	20.8	25.0	83.2%	10.0%
Chrysene	20.1	25.0	80.4%	18.7	25.0	74.8%	7.2%
Di-n-Octyl phthalate	21.2	25.0	84.8%	19.7	25.0	78.8%	7.3%
Benzo(b)fluoranthene	24.5	25.0	98.0%	20.9	25.0	83.6%	15.9%
Benzo(k)fluoranthene	21.4	25.0	85.6%	22.1	25.0	88.4%	3.2%
Benzo(a)pyrene	19.6	25.0	78.4%	18.4	25.0	73.6%	6.3%
Indeno(1,2,3-cd)pyrene	20.8	25.0	83.2%	18.6	25.0	74.4%	11.2%
Dibenz(a,h)anthracene	23.0	25.0	92.0%	20.4	25.0	81.6%	12.0%
Benzo(g,h,i)perylene	18.2	25.0	72.8%	16.0	25.0	64.0%	12.9%
1-Methylnaphthalene	21.0	25.0	84.0%	19.8	25.0	79.2%	5.9%


Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	94.0%	87.6%
2-Fluorobiphenyl	95.2%	85.2%
d14-p-Terphenyl	84.8%	79.6%
d4-1,2-Dichlorobenzene	79.6%	72.4%
d5-Phenol	110%	98.4%
2-Fluorophenol	97.1%	82.9%
2,4,6-Tribromophenol	108%	99.5%
d4-2-Chlorophenol	100%	89.9%

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: MB-080210
METHOD BLANK

Lab Sample ID: MB-080210
LIMS ID: 10-18191
Matrix: Water
Data Release Authorized: 
Reported: 08/05/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: NA
Date Received: NA

Date Extracted: 08/02/10
Date Analyzed: 08/04/10 23:13
Instrument/Analyst: NT4/JZ

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	1.0	< 1.0 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-080210
METHOD BLANK

Lab Sample ID: MB-080210
LIMS ID: 10-18191
Matrix: Water
Date Analyzed: 08/04/10 23:13

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

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	5.0	< 5.0 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	85.6%	2-Fluorobiphenyl	82.0%
d14-p-Terphenyl	80.4%	d4-1,2-Dichlorobenzene	69.2%
d5-Phenol	98.4%	2-Fluorophenol	86.1%
2,4,6-Tribromophenol	95.7%	d4-2-Chlorophenol	89.6%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: LCS-080610
 LCS/LCSD

Lab Sample ID: LCS-080610
 LIMS ID: 10-18193
 Matrix: Soil
 Data Release Authorized:
 Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022
 Date Sampled: 07/29/10
 Date Received: 07/29/10

Date Extracted LCS/LCSD: 08/06/10

Sample Amount LCS: 7.50 g
 LCSD: 7.50 g

Date Analyzed LCS: 08/11/10 23:05
 LCSD: 08/11/10 23:38

Final Extract Volume LCS: 0.5 mL
 LCSD: 0.5 mL

Instrument/Analyst LCS: NT6/JZ
 LCSD: NT6/JZ

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	1090	1670	65.3%	1090	1670	65.3%	0.0%
Bis-(2-Chloroethyl) Ether	1060	1670	63.5%	1080	1670	64.7%	1.9%
2-Chlorophenol	1030	1670	61.7%	1040	1670	62.3%	1.0%
1,3-Dichlorobenzene	1050	1670	62.9%	1060	1670	63.5%	0.9%
1,4-Dichlorobenzene	1040	1670	62.3%	1050	1670	62.9%	1.0%
Benzyl Alcohol	3150	3330	94.6%	3150	3330	94.6%	0.0%
1,2-Dichlorobenzene	1050	1670	62.9%	1060	1670	63.5%	0.9%
2-Methylphenol	1100	1670	65.9%	1090	1670	65.3%	0.9%
2,2'-Oxybis(1-Chloropropane)	1160	1670	69.5%	1160	1670	69.5%	0.0%
4-Methylphenol	2210	3330	66.4%	2180	3330	65.5%	1.4%
N-Nitroso-Di-N-Propylamine	1150	1670	68.9%	1150	1670	68.9%	0.0%
Hexachloroethane	1080	1670	64.7%	1100	1670	65.9%	1.8%
Nitrobenzene	1060	1670	63.5%	1060	1670	63.5%	0.0%
Isophorone	1250	1670	74.9%	1250	1670	74.9%	0.0%
2-Nitrophenol	1120	1670	67.1%	1120	1670	67.1%	0.0%
2,4-Dimethylphenol	1010	1670	60.5%	1010	1670	60.5%	0.0%
Benzoic Acid	3660	5000	73.2%	3560	5000	71.2%	2.8%
bis(2-Chloroethoxy) Methane	1090	1670	65.3%	1080	1670	64.7%	0.9%
2,4-Dichlorophenol	1130	1670	67.7%	1130	1670	67.7%	0.0%
1,2,4-Trichlorobenzene	1070	1670	64.1%	1060	1670	63.5%	0.9%
Naphthalene	1130	1670	67.7%	1130	1670	67.7%	0.0%
4-Chloroaniline	3300	4000	82.5%	3220	4000	80.5%	2.5%
Hexachlorobutadiene	1130	1670	67.7%	1120	1670	67.1%	0.9%
4-Chloro-3-methylphenol	1180	1670	70.7%	1170	1670	70.1%	0.9%
2-Methylnaphthalene	1200	1670	71.9%	1200	1670	71.9%	0.0%
Hexachlorocyclopentadiene	3350	5000	67.0%	3440	5000	68.8%	2.7%
2,4,6-Trichlorophenol	1100	1670	65.9%	1100	1670	65.9%	0.0%
2,4,5-Trichlorophenol	1090	1670	65.3%	1070	1670	64.1%	1.9%
2-Chloronaphthalene	1070	1670	64.1%	1070	1670	64.1%	0.0%
2-Nitroaniline	1180	1670	70.7%	1170	1670	70.1%	0.9%
Dimethylphthalate	1040	1670	62.3%	1020	1670	61.1%	1.9%
Acenaphthylene	1100	1670	65.9%	1100	1670	65.9%	0.0%
3-Nitroaniline	3430	4270	80.3%	3320	4270	77.8%	3.3%
Acenaphthene	1040	1670	62.3%	1040	1670	62.3%	0.0%

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: LCSD-080610
 LCS/LCSD

Lab Sample ID: LCS-080610
 LIMS ID: 10-18193
 Matrix: Soil
 Date Analyzed LCS: 08/11/10 23:05
 LCSD: 08/11/10 23:38

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	3740 Q	5000	74.8%	2780 Q	5000	55.6%	29.4%
4-Nitrophenol	813 Q	1670	48.7%	795 Q	1670	47.6%	2.2%
Dibenzofuran	1150	1670	68.9%	1150	1670	68.9%	0.0%
2,6-Dinitrotoluene	1080	1670	64.7%	1080	1670	64.7%	0.0%
2,4-Dinitrotoluene	1110	1670	66.5%	1090	1670	65.3%	1.8%
Diethylphthalate	1050	1670	62.9%	1040	1670	62.3%	1.0%
4-Chlorophenyl-phenylether	1060	1670	63.5%	1040	1670	62.3%	1.9%
Fluorene	1110	1670	66.5%	1100	1670	65.9%	0.9%
4-Nitroaniline	1100	1670	65.9%	1060	1670	63.5%	3.7%
4,6-Dinitro-2-Methylphenol	4170	5000	83.4%	4010	5000	80.2%	3.9%
N-Nitrosodiphenylamine	1010	1670	60.5%	1020	1670	61.1%	1.0%
4-Bromophenyl-phenylether	1100	1670	65.9%	1110	1670	66.5%	0.9%
Hexachlorobenzene	1150	1670	68.9%	1160	1670	69.5%	0.9%
Pentachlorophenol	791	1670	47.4%	795	1670	47.6%	0.5%
Phenanthrene	1090	1670	65.3%	1090	1670	65.3%	0.0%
Carbazole	1010	1670	60.5%	978	1670	58.6%	3.2%
Anthracene	1090	1670	65.3%	1080	1670	64.7%	0.9%
Di-n-Butylphthalate	1110	1670	66.5%	1100	1670	65.9%	0.9%
Fluoranthene	1170	1670	70.1%	1150	1670	68.9%	1.7%
Pyrene	1220	1670	73.1%	1200	1670	71.9%	1.7%
Butylbenzylphthalate	1180	1670	70.7%	1150	1670	68.9%	2.6%
3,3'-Dichlorobenzidine	3650	4270	85.5%	3630	4270	85.0%	0.5%
Benzo(a)anthracene	1240	1670	74.3%	1230	1670	73.7%	0.8%
bis(2-Ethylhexyl)phthalate	1170	1670	70.1%	1170	1670	70.1%	0.0%
Chrysene	1180	1670	70.7%	1170	1670	70.1%	0.9%
Di-n-Octyl phthalate	1080	1670	64.7%	1080	1670	64.7%	0.0%
Benzo(b)fluoranthene	1120	1670	67.1%	1240	1670	74.3%	10.2%
Benzo(k)fluoranthene	1130	1670	67.7%	1030	1670	61.7%	9.3%
Benzo(a)pyrene	1050	1670	62.9%	1050	1670	62.9%	0.0%
Indeno(1,2,3-cd)pyrene	1160	1670	69.5%	1180	1670	70.7%	1.7%
Dibenz(a,h)anthracene	1170	1670	70.1%	1180	1670	70.7%	0.9%
Benzo(g,h,i)perylene	1140	1670	68.3%	1150	1670	68.9%	0.9%
1-Methylnaphthalene	1200	1670	71.9%	1200	1670	71.9%	0.0%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	78.4%	72.0%
2-Fluorobiphenyl	75.6%	70.4%
d14-p-Terphenyl	88.8%	84.4%
d4-1,2-Dichlorobenzene	80.4%	74.4%
d5-Phenol	76.8%	70.7%
2-Fluorophenol	77.9%	73.1%
2,4,6-Tribromophenol	91.5%	84.3%
d4-2-Chlorophenol	75.5%	69.6%

Reported in µg/kg (ppb)
 RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: MB-080610
METHOD BLANK

Lab Sample ID: MB-080610
LIMS ID: 10-18193
Matrix: Soil
Data Release Authorized:
Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: NA
Date Received: NA

Date Extracted: 08/06/10
Date Analyzed: 08/11/10 22:33
Instrument/Analyst: NT6/JZ
GPC Cleanup: No

Sample Amount: 7.50 g-dry-wt
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	330	< 330 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
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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
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Sample ID: MB-080610
 METHOD BLANK

Lab Sample ID: MB-080610
 LIMS ID: 10-18193
 Matrix: Soil
 Date Analyzed: 08/11/10 22:33

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022

CAS Number	Analyte	RL	Result
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	74.0%	2-Fluorobiphenyl	72.8%
d14-p-Terphenyl	86.0%	d4-1,2-Dichlorobenzene	75.2%
d5-Phenol	76.8%	2-Fluorophenol	75.5%
2,4,6-Tribromophenol	87.5%	d4-2-Chlorophenol	74.1%

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

Sample ID: KSC-DP-7-S-3.5-4-100729
SAMPLE

Lab Sample ID: RG52C
 LIMS ID: 10-18193
 Matrix: Soil
 Data Release Authorized: 
 Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022
 Date Sampled: 07/29/10
 Date Received: 07/29/10

Date Extracted: 08/05/10
 Date Analyzed: 08/10/10 17:32
 Instrument/Analyst: ECD5/YZ
 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: 5.00
 Silica Gel: No
 Percent Moisture: 11.1%

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	96.9%
Tetrachlorometaxylene	84.5%

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

Sample ID: KSC-DP-8-S-4.5-5-100729
SAMPLE

Lab Sample ID: RG52D
 LIMS ID: 10-18194
 Matrix: Soil
 Data Release Authorized: *AS*
 Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022
 Date Sampled: 07/29/10
 Date Received: 07/29/10

Date Extracted: 08/05/10
 Date Analyzed: 08/10/10 17:51
 Instrument/Analyst: ECD5/YZ
 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: 5.00
 Silica Gel: No
 Percent Moisture: 11.0%

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	104%
Tetrachlorometaxylene	90.8%

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

Sample ID: KSC-DP-9-S-5.5-6-100729
SAMPLE

Lab Sample ID: RG52E
LIMS ID: 10-18195
Matrix: Soil
Data Release Authorized: *B*
Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted: 08/05/10
Date Analyzed: 08/10/10 18:10
Instrument/Analyst: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisol Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 4.0 mL
Dilution Factor: 5.00
Silica Gel: No
Percent Moisture: 9.9%

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	99.6%
Tetrachlorometaxylene	101%

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

Sample ID: KSC-DP-3-S-7-8-100729
SAMPLE

Lab Sample ID: RG52F
 LIMS ID: 10-18196
 Matrix: Soil
 Data Release Authorized: *MB*
 Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022
 Date Sampled: 07/29/10
 Date Received: 07/29/10

Date Extracted: 08/05/10
 Date Analyzed: 08/10/10 18:29
 Instrument/Analyst: ECD5/YZ
 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: 5.00
 Silica Gel: No
 Percent Moisture: 15.5%

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 µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	102%
Tetrachlorometaxylene	77.8%

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

<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-080510	107%	51-112	93.0%	46-111	0
LCS-080510	106%	51-112	94.8%	46-111	0
LCSD-080510	107%	51-112	93.2%	46-111	0
KSC-DP-7-S-3.5-4-100729	96.9%	42-127	84.5%	50-114	0
KSC-DP-8-S-4.5-5-100729	104%	42-127	90.8%	50-114	0
KSC-DP-9-S-5.5-6-100729	99.6%	42-127	101%	50-114	0
KSC-DP-3-S-7-8-100729	102%	42-127	77.8%	50-114	0

Microwave (MARS) Control Limits
Prep Method: SW3546
Log Number Range: 10-18193 to 10-18196

ORGANICS ANALYSIS DATA SHEET

PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: LCS-080510
LCS/LCSD

Lab Sample ID: LCS-080510
LIMS ID: 10-18193
Matrix: Soil
Data Release Authorized: *AS*
Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 08/05/10

Sample Amount LCS: 12.0 g-dry-wt
LCSD: 12.0 g-dry-wt

Date Analyzed LCS: 08/10/10 16:36
LCSD: 08/10/10 16:55

Final Extract Volume LCS: 4.0 mL
LCSD: 4.0 mL

Instrument/Analyst LCS: ECD5/YZ
LCSD: ECD5/YZ

Dilution Factor LCS: 5.00
LCSD: 5.00

GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisol Cleanup: No

Silica Gel: No
Percent Moisture: NA

Analyte	Spike		LCS	LCSD	Spike		RPD
	LCS	Added-LCS	Recovery		Added-LCSD	Recovery	
Aroclor 1016	199	167	119%	206	167	124%	3.5%
Aroclor 1260	172	167	103%	172	167	103%	0.0%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	106%	107%
Tetrachlorometaxylene	94.8%	93.2%

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: MB-080510
METHOD BLANK

Lab Sample ID: MB-080510
 LIMS ID: 10-18193
 Matrix: Soil
 Data Release Authorized: *RB*
 Reported: 08/11/10

QC Report No: RG52-Landau Associates, Inc.
 Project: Striker
 025195.020.022
 Date Sampled: NA
 Date Received: NA

Date Extracted: 08/05/10
 Date Analyzed: 08/10/10 16:17
 Instrument/Analyst: ECD5/YZ
 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: 5.00
 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	107%
Tetrachlorometaxylene	93.0%

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water


QC Report No: RG52-Landau Associates, Inc.

Project: Striker

Event: 025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Data Release Authorized: 

Reported: 08/13/10

ARI ID	Client ID	Analysis Date	DL	Range	Result
MB-080210 10-18191	Method Blank	08/02/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 100% 101%
RG52A 10-18191	KSC-DP-4-GW-100729	08/02/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 109% 104%
RG52B 10-18192	KSC-DP-9-GW-100729	08/02/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 112% 110%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Soil

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

Event: 025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Data Release Authorized: *MW*

Reported: 08/10/10

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-080210 10-18193	Method Blank	08/02/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.0 U --- 100% 101%
RG52C 10-18193	KSC-DP-7-S-3.5-4-100729	08/02/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.6 U --- 111% 108%
RG52D 10-18194	KSC-DP-8-S-4.5-5-100729	08/02/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.9 U --- 112% 108%
RG52E 10-18195	KSC-DP-9-S-5.5-6-100729	08/02/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.9 U --- 111% 106%
RG52F 10-18196	KSC-DP-3-S-7-8-100729	08/02/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	890 GRO 108% 112%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: RG52
Matrix: Water

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
Event: 025195.020.022

Client ID	TFT	BBZ	TOT OUT
MB-080210	100%	101%	0
LCS-080210	103%	101%	0
LCSD-080210	107%	105%	0
KSC-DP-4-GW-100729	109%	104%	0
KSC-DP-9-GW-100729	112%	110%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 10-18191 to 10-18192

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: RG52
Matrix: Soil

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
Event: 025195.020.022

Client ID	BFB	TFT	BBZ	TOT OUT
MB-080210	NA	100%	101%	0
LCS-080210	NA	103%	101%	0
LCSD-080210	NA	107%	105%	0
KSC-DP-7-S-3.5-4-100729	NA	111%	108%	0
KSC-DP-8-S-4.5-5-100729	NA	112%	108%	0
KSC-DP-9-S-5.5-6-100729	NA	111%	106%	0
KSC-DP-3-S-7-8-100729	NA	108%	112%	0

	LCS/MB LIMITS	QC LIMITS
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 10-18193 to 10-18196

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Page 1 of 1

Sample ID: LCS-080210

LAB CONTROL SAMPLE

Lab Sample ID: LCS-080210

LIMS ID: 10-18191

Matrix: Water

Data Release Authorized: *W*

Reported: 08/10/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

Event: 025195.020.022

Date Sampled: NA

Date Received: NA

Date Analyzed LCS: 08/02/10 07:51

Purge Volume: 5.0 mL

LCS D: 08/02/10 08:15

Instrument/Analyst LCS: PID3/MH

Dilution Factor LCS: 1.0

LCS D: PID3/MH

LCS D: 1.0

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS D	Spike Added-LCS D	LCS D Recovery	RPD
Gasoline Range Hydrocarbons	0.90	1.00	90.0%	0.99	1.00	99.0%	9.5%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCS D
Trifluorotoluene	103%	107%
Bromobenzene	101%	105%

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-080210
LAB CONTROL SAMPLE

Lab Sample ID: LCS-080210
LIMS ID: 10-18193
Matrix: Soil
Data Release Authorized: *MMW*
Reported: 08/10/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
Event: 025195.020.022
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 08/02/10 07:51
LCSD: 08/02/10 08:15
Instrument/Analyst LCS: PID3/MH
LCSD: PID3/MH

Purge Volume: 5.0 mL

Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	44.8	50.0	89.6%	49.4	50.0	98.8%	9.8%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.


TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	103%	107%
Bromobenzene	101%	105%

**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: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

Data Release Authorized: 
Reported: 08/13/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-080310 10-18191	Method Blank HC ID: ---	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 74.5%
RG52A 10-18191	KSC-DP-4-GW-100729 HC ID: ---	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 81.1%
RG52B 10-18192	KSC-DP-9-GW-100729 HC ID: ---	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 97.4%

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.

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: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

Data Release Authorized: *MW*
Reported: 08/09/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-080510 10-18193	Method Blank HC ID: ---	08/05/10	08/06/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 100%
RG52C 10-18193	KSC-DP-7-S-3.5-4-100708/05/10 HC ID: ---	08/06/10	08/06/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.6 11	< 5.6 U < 11 U 104%
RG52D 10-18194	KSC-DP-8-S-4.5-5-100708/05/10 HC ID: ---	08/06/10	08/06/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.6 11	< 5.6 U < 11 U 107%
RG52E 10-18195	KSC-DP-9-S-5.5-6-100708/05/10 HC ID: MOTOR OIL	08/06/10	08/06/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.5 11	< 5.5 U 51 103%
RG52F 10-18196	KSC-DP-3-S-7-8-10072908/05/10 HC ID: DIESEL/RRO	08/06/10	08/06/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.9 12	2000 E 67 NR
RG52F DL 10-18196	KSC-DP-3-S-7-8-10072908/05/10 HC ID: DIESEL	08/06/10	08/06/10 FID3B	1.00 20	Diesel Motor Oil o-Terphenyl	120 240	2000 < 240 U D

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: Water

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-080310	74.5%	0
LCS-080310	82.9%	0
LCSD-080310	84.4%	0
KSC-DP-4-GW-100729	81.1%	0
KSC-DP-9-GW-100729	97.4%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(51-120)	(41-121)

Prep Method: SW3510C
Log Number Range: 10-18191 to 10-18192

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-080510	100%	0
LCS-080510	109%	0
LCSD-080510	109%	0
KSC-DP-7-S-3.5-4-1	104%	0
KSC-DP-8-S-4.5-5-1	107%	0
KSC-DP-9-S-5.5-6-1	103%	0
KSC-DP-3-S-7-8-100	NR	0
KSC-DP-3-S-7-8-100 DL	D	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(63-115)

(49-120)

Prep Method: SW3546
Log Number Range: 10-18193 to 10-18196

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: LCS-080310

Page 1 of 1

LCS/LCSD

Lab Sample ID: LCS-080310

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18191

Project: Striker

Matrix: Water

025195.020.022

Data Release Authorized: *AB*

Date Sampled: 07/29/10

Reported: 08/05/10

Date Received: 07/29/10

Date Extracted LCS/LCSD: 08/03/10

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 08/04/10 20:10

Final Extract Volume LCS: 1.0 mL

LCSD: 08/04/10 20:29

LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS

Dilution Factor LCS: 1.00

LCSD: FID/MS

LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	1.86	3.00	62.0%	1.95	3.00	65.0%	4.7%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	82.9%	84.4%

Results reported in mg/L

RPD calculated using sample concentrations per SW846.



ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: LCS-080510
LCS/LCSD

Lab Sample ID: LCS-080510
LIMS ID: 10-18193
Matrix: Soil
Data Release Authorized: *MMW*
Reported: 08/09/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Date Extracted LCS/LCSD: 08/05/10

Sample Amount LCS: 10.0 g
LCSD: 10.0 g

Date Analyzed LCS: 08/06/10 15:21
LCSD: 08/06/10 15:40

Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

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

Dilution Factor LCS: 1.0
LCSD: 1.0

Range	LCS	Spike		LCS Recovery	LCSD	Spike		LCSD Recovery	RPD
		Added-LCS	Recovery			Added-LCSD	Recovery		
Diesel	128	150	85.3%	134	150	89.3%	4.6%		

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	109%	109%

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

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 07/29/10

ARI Job: RG52
Project: Striker
025195.020.022

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
10-18191-080310MB1	Method Blank	500 mL	1.00 mL	08/03/10
10-18191-080310LCS1	Lab Control	500 mL	1.00 mL	08/03/10
10-18191-080310LCSD1	Lab Control Dup	500 mL	1.00 mL	08/03/10
10-18191-RG52A	KSC-DP-4-GW-100729	500 mL	1.00 mL	08/03/10
10-18192-RG52B	KSC-DP-9-GW-100729	500 mL	1.00 mL	08/03/10

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil
Date Received: 07/29/10

ARI Job: RG52
Project: Striker
025195.020.022

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-18193-080510MB1	Method Blank	10.0 g	1.00 mL	-	08/05/10
10-18193-080510LCS1	Lab Control	10.0 g	1.00 mL	-	08/05/10
10-18193-080510LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	08/05/10
10-18193-RG52C	KSC-DP-7-S-3.5-4-108.93	108.93 g	1.00 mL	D	08/05/10
10-18194-RG52D	KSC-DP-8-S-4.5-5-108.94	108.94 g	1.00 mL	D	08/05/10
10-18195-RG52E	KSC-DP-9-S-5.5-6-109.07	109.07 g	1.00 mL	D	08/05/10
10-18196-RG52F	KSC-DP-3-S-7-8-10078.49	10078.49 g	1.00 mL	D	08/05/10


Basis: D=Dry Weight W=As Received
Diesel Extraction Report

RG52 : 00080

**INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS**

Sample ID: KSC-DP-4-GW-100729
SAMPLE

Page 1 of 1

Lab Sample ID: RG52A
LIMS ID: 10-18191
Matrix: Water
Data Release Authorized: 
Reported: 08/13/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/03/10	200.8	08/10/10	7440-38-2	Arsenic	0.2	9.6	
200.8	08/03/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
200.8	08/03/10	200.8	08/11/10	7440-47-3	Chromium	1	1	U
200.8	08/03/10	200.8	08/10/10	7440-50-8	Copper	0.5	0.5	
200.8	08/03/10	200.8	08/10/10	7439-92-1	Lead	1	1	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.1	0.1	U
200.8	08/03/10	200.8	08/10/10	7440-66-6	Zinc	4	4	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: KSC-DP-9-GW-100729
SAMPLE

Lab Sample ID: RG52B

LIMS ID: 10-18192

Matrix: Water

Data Release Authorized: 

Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/03/10	200.8	08/11/10	7440-38-2	Arsenic	0.5	13.8	
200.8	08/03/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
200.8	08/03/10	200.8	08/11/10	7440-47-3	Chromium	1	2	
200.8	08/03/10	200.8	08/10/10	7440-50-8	Copper	0.5	0.8	
200.8	08/03/10	200.8	08/10/10	7439-92-1	Lead	1	1	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.1	0.1	U
200.8	08/03/10	200.8	08/10/10	7440-66-6	Zinc	4	4	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: KSC-DP-7-S-3.5-4-100729
SAMPLE

Lab Sample ID: RG52C

LIMS ID: 10-18193

Matrix: Soil

Data Release Authorized: 

Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Percent Total Solids: 88.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/06/10	200.8	08/10/10	7440-38-2	Arsenic	0.2	3.0	
3050B	08/06/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	08/06/10	200.8	08/11/10	7440-47-3	Chromium	1	29	
3050B	08/06/10	200.8	08/10/10	7440-50-8	Copper	0.6	22.1	
3050B	08/06/10	200.8	08/10/10	7439-92-1	Lead	1	4	
CLP	08/06/10	7471A	08/09/10	7439-97-6	Mercury	0.02	0.03	
3050B	08/06/10	200.8	08/10/10	7440-66-6	Zinc	4	42	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: KSC-DP-8-S-4.5-5-100729
SAMPLE

Lab Sample ID: RG52D

LIMS ID: 10-18194

Matrix: Soil

Data Release Authorized 

Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Percent Total Solids: 89.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/06/10	200.8	08/10/10	7440-38-2	Arsenic	0.2	1.5	
3050B	08/06/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	08/06/10	200.8	08/11/10	7440-47-3	Chromium	1	29	
3050B	08/06/10	200.8	08/10/10	7440-50-8	Copper	0.5	18.1	
3050B	08/06/10	200.8	08/10/10	7439-92-1	Lead	1	3	
CLP	08/06/10	7471A	08/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	08/06/10	200.8	08/10/10	7440-66-6	Zinc	4	37	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: KSC-DP-9-S-5.5-6-100729
SAMPLE

Lab Sample ID: RG52E

LIMS ID: 10-18195

Matrix: Soil

Data Release Authorized: *AM*

Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Percent Total Solids: 90.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/06/10	200.8	08/10/10	7440-38-2	Arsenic	0.2	1.8	
3050B	08/06/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	08/06/10	200.8	08/11/10	7440-47-3	Chromium	1	21	
3050B	08/06/10	200.8	08/10/10	7440-50-8	Copper	0.5	15.4	
3050B	08/06/10	200.8	08/10/10	7439-92-1	Lead	1	2	
CLP	08/06/10	7471A	08/09/10	7439-97-6	Mercury	0.02	0.03	
3050B	08/06/10	200.8	08/10/10	7440-66-6	Zinc	4	28	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: KSC-DP-3-S-7-8-100729
SAMPLE

Lab Sample ID: RG52F

LIMS ID: 10-18196

Matrix: Soil

Data Release Authorized: 

Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: 07/29/10

Date Received: 07/29/10

Percent Total Solids: 86.1%


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/06/10	200.8	08/10/10	7440-38-2	Arsenic	0.2	2.2	
3050B	08/06/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	08/06/10	200.8	08/11/10	7440-47-3	Chromium	1	26	
3050B	08/06/10	200.8	08/10/10	7440-50-8	Copper	0.5	20.1	
3050B	08/06/10	200.8	08/10/10	7439-92-1	Lead	1	4	
CLP	08/06/10	7471A	08/09/10	7439-97-6	Mercury	0.02	0.03	
3050B	08/06/10	200.8	08/10/10	7440-66-6	Zinc	4	42	

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: RG52LCS
LIMS ID: 10-18191
Matrix: Water
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	23.2	25.0	92.8%	
Cadmium	200.8	24.3	25.0	97.2%	
Chromium	200.8	25.0	25.0	100%	
Copper	200.8	27.5	25.0	110%	
Lead	200.8	26	25	104%	
Mercury	7470A	2.1	2.0	105%	
Zinc	200.8	82	80	102%	

Reported in ug/L

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

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: RG52LCS

LIMS ID: 10-18193

Matrix: Soil

Data Release Authorized: 

Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.

Project: Striker

025195.020.022

Date Sampled: NA

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	200.8	24.4	25.0	97.6%	
Chromium	200.8	25.4	25.0	102%	
Copper	200.8	27.7	25.0	111%	
Lead	200.8	24	25	96.0%	
Mercury	7471A	0.50	0.50	100%	
Zinc	200.8	84	80	105%	

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: METHOD BLANK

Lab Sample ID: RG52MB
LIMS ID: 10-18191
Matrix: Water
Data Release Authorized:
Reported: 08/12/10

QC Report No: RG52-Landau Associates, Inc.
Project: Striker
025195.020.022
Date Sampled: NA
Date Received: NA



Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/03/10	200.8	08/10/10	7440-38-2	Arsenic	0.2	0.2	U
200.8	08/03/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
200.8	08/03/10	200.8	08/10/10	7440-47-3	Chromium	0.5	0.5	U
200.8	08/03/10	200.8	08/10/10	7440-50-8	Copper	0.5	0.5	U
200.8	08/03/10	200.8	08/10/10	7439-92-1	Lead	1	1	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.1	0.1	U
200.8	08/03/10	200.8	08/10/10	7440-66-6	Zinc	4	4	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: RG52MB

QC Report No: RG52-Landau Associates, Inc.

LIMS ID: 10-18193

Project: Striker

Matrix: Soil

025195.020.022

Data Release Authorized: 

Date Sampled: NA

Reported: 08/12/10

Date Received: NA

Percent Total Solids: NA


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/06/10	200.8	08/10/10	7440-38-2	Arsenic	0.2	0.2	U
3050B	08/06/10	200.8	08/10/10	7440-43-9	Cadmium	0.2	0.2	U
3050B	08/06/10	200.8	08/10/10	7440-47-3	Chromium	0.5	0.5	U
3050B	08/06/10	200.8	08/10/10	7440-50-8	Copper	0.5	0.5	U
3050B	08/06/10	200.8	08/10/10	7439-92-1	Lead	1	1	U
CLP	08/06/10	7471A	08/09/10	7439-97-6	Mercury	0.02	0.02	U
3050B	08/06/10	200.8	08/10/10	7440-66-6	Zinc	4	4	U

U-Analyte undetected at given RL

RL-Reporting Limit

SAMPLE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Client ID: KSC-DP-4-GW-100729
ARI ID: 10-18191 RG52A

Analyte	Date Batch	Method	Units	RL	Sample
Hexavalent Chrome	07/30/10 073010#1	SM3500Cr-D	mg/L	0.010	< 0.010 U

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Water
Data Release Authorized
Reported: 08/13/10

A handwritten signature in dark ink, appearing to be 'MS' or similar, written over the printed text.

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Client ID: KSC-DP-9-GW-100729
ARI ID: 10-18192 RG52B

Analyte	Date Batch	Method	Units	RL	Sample
Hexavalent Chrome	07/30/10 073010#1	SM3500Cr-D	mg/L	0.010	0.023

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized *MB*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Client ID: KSC-DP-7-S-3.5-4-100729
ARI ID: 10-18193 RG52C

Analyte	Date	Method	Units	RL	Sample
Hexavalent Chrome	08/10/10 081010#1	SM3500Cr-D	mg/kg	0.445	< 0.445 U
Total Solids	08/04/10 080410#1	EPA 160.3	Percent	0.01	88.90

RL Analytical reporting limit
U Undetected at reported detection limit

Hexavalent Chrome prepared using Method 3060.

SAMPLE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized: *MMB*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Client ID: KSC-DP-8-S-4.5-5-100729
ARI ID: 10-18194 RG52D

Analyte	Date	Method	Units	RL	Sample
Hexavalent Chrome	08/10/10 081010#1	SM3500Cr-D	mg/kg	0.434	< 0.434 U
Total Solids	08/04/10 080410#1	EPA 160.3	Percent	0.01	89.60

RL Analytical reporting limit
U Undetected at reported detection limit

Hexavalent Chrome prepared using Method 3060.

SAMPLE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized: *mb*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Client ID: KSC-DP-9-S-5.5-6-100729
ARI ID: 10-18195 RG52E

Analyte	Date	Method	Units	RL	Sample
Hexavalent Chrome	08/10/10 081010#1	SM3500Cr-D	mg/kg	0.426	< 0.426 U
Total Solids	08/04/10 080410#1	EPA 160.3	Percent	0.01	90.70

RL Analytical reporting limit
U Undetected at reported detection limit

Hexavalent Chrome prepared using Method 3060.

SAMPLE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized: *MB*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Client ID: KSC-DP-3-S-7-8-100729
ARI ID: 10-18196 RG52F


Analyte	Date	Method	Units	RL	Sample
Hexavalent Chrome	08/10/10 081010#1	SM3500Cr-D	mg/kg	0.447	< 0.447 U
Total Solids	08/04/10 080410#1	EPA 160.3	Percent	0.01	86.80

RL Analytical reporting limit
U Undetected at reported detection limit

Hexavalent Chrome prepared using Method 3060.

MS/MSD RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 08/18/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: RG52A Client ID: KSC-DP-4-GW-100729							
Hexavalent Chrome	SM3500Cr-D	07/30/10	mg/L	< 0.010	0.012	0.627	1.9%
Hexavalent Chrome	SM3500Cr-D	07/30/10	mg/L	< 0.010	0.012	0.627	1.9%

MS/MSD RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized: *MB*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: RG52C Client ID: KSC-DP-7-S-3.5-4-100729						
Hexavalent Chrome	08/10/10	mg/kg	< 0.445	10.3	22.1	46.7%
Hexavalent Chrome	08/10/10	mg/kg	< 0.445	718	809	88.7%

REPLICATE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Water
Data Release Authorized: *[Signature]*
Reported: 08/18/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: RG52A Client ID: KSC-DP-4-GW-100729						
Hexavalent Chrome	SM3500Cr-D	07/30/10	mg/L	< 0.010	< 0.010	NA

REPLICATE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized: MB
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: 07/29/10
Date Received: 07/29/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: RG52C Client ID: KSC-DP-7-S-3.5-4-100729					
Hexavalent Chrome	08/10/10	mg/kg	< 0.445	< 0.448	NA
Total Solids	08/04/10	Percent	88.90	87.00	2.2%

METHOD BLANK RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Water
Data Release Authorized: *MB*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank	ID
Hexavalent Chrome	SM3500Cr-D	07/30/10	mg/L	< 0.010 U	

METHOD BLANK RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized *MP*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Hexavalent Chrome	08/10/10	mg/kg	< 0.400 U
Total Solids	08/04/10	Percent	< 0.01 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Water
Data Release Authorized: *NR*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
Hexavalent Chrome ERA #41065	SM3500Cr-D	07/30/10	mg/L	0.642	0.630	101.9%

STANDARD REFERENCE RESULTS-CONVENTIONALS
RG52-Landau Associates, Inc.



Matrix: Soil
Data Release Authorized: *MM*
Reported: 08/13/10

Project: Striker
Event: 025195.020.022
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Soluble Hexavalent Chrome	08/10/10	mg/kg	18.5	20.0	92.5%
Insoluble Hexavalent Chrome	08/10/10	mg/kg	920	944	97.5%
Soil Hexavalent Chrome					



Analytical Resources, Incorporated

Analytical Chemists and Consultants

August 20, 2010

Tim Syverson
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker 0025195.020
ARI Job: RG63 – Second Revision

Dear Tim

Enclosed, please find the original 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 five water samples and one trip blank in good condition on July 30, 2010. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form. Per Landau Associates, samples were allowed to settle and sample aliquot was collected from the clear portion.

The sample was analyzed for Dissolved Metals, Hexavalent Chrome, SVOCs, VOCs, NWTPH-Dx and NWTPH-Gx, as requested on the COC.

The VOC trip blank was analyzed from a compromised vial due to only receiving one vial, and the original attempt at analyzing the trip blank failing due to an autosampler error.

Acetone and 1,2,4-Trichlorobenzene were out of control high in the VOC LCS. They were in control in the LCSD. No further corrective action was required.

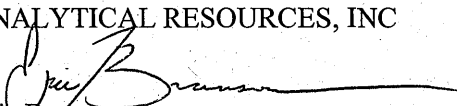
The SVOC CCALs from 08/10/10 and 08/11/10 were out of control low for 2,4-Dinitrophenol. The CCAL from 08/11/10 was additionally out of control low for 4-Nitrophenol. Associated samples with detections for these compounds have been flagged with a Q qualifier.

N-Nitrosodiphenylamine was out of control low in the SVOC LCS and LCSD. No further corrective action was required.

The soluble and insoluble matrix spikes were out of control low for Hexavalent Chrome. All other quality control measures were in control. 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


Eric Branson
Project Manager
-for-

Kelly Bottem
Client Services Manager
(206) 695-6211
kellyb@arilabs.com

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Data Reporting Qualifiers

Effective 7/10/2009

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but \geq the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ($< 20\%$ RSD, $< 20\%$ Drift or minimum RRF).
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte



- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference

Geotechnical Data

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting



RQ63

- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
-

Date 07/30/10
Page 1 of 1

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>0025195.020</u>					Testing Parameters										Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/>					
Project Location/Event <u>Striker Property</u>					<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-Gx</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-Dx</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOC</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Cr6</div> </div>															
Sampler's Name <u>SED/PRR/CFB</u>																				
Project Contact <u>Joe Flaherty (Boehs) / Tim Syverson</u>																				
Send Results To <u>same</u>																				
Sample I.D.	Date	Time	Matrix	No. of Containers	VOCs	NWTPH-Gx	NWTPH-Dx	SVOC	Total Metals	Cr6	Observations/Comments									
KSC-DP-5-GW-100730	7/30/10	0810	H ₂ O	11	X	X	X	X	X	X	X Allow water samples to settle, collect aliquot from clear portion									
KSC-DP-2-GW-100730	7/30/10	0946	H ₂ O	11	X	X	X	X	X	X	X NWTPH-Dx - run acid wash/silica gel cleanup									
KSC-DP-3-GW-100730	7/30/10	1025	H ₂ O	11	X	X	X	X	X	X	run samples standardized to _____ product									
KSC-DP-16-GW-100730	7/30/10	1220	H ₂ O	11	X	X	X	X	X	X	Analyze for EPH if no specific product identified									
KSC-DP-11-GW-100730	7/30/10	1321	H ₂ O	11	X	X	X	X	X	X	VOC/BTEX/VPH (sol): ____ non-preserved ____ preserved w/methanol ____ preserved w/sodium bisulfate ____ Freeze upon receipt									
Trip blanks			water		X	X					X Dissolved metal water samples field filtered Other <u>Arsenic, Cadmium, Chromium, Cr-6, Cu, Pb, Mercury, Zinc</u>									
Special Shipment/Handling or Storage Requirements <u>store at 4°C 2 coolers</u>					Method of Shipment <u>hand delivered</u>															
Relinquished by					Received by					Relinquished by					Received by					
Signature _____					Signature _____					Signature _____					Signature _____					
Printed Name <u>Paul Raymeyer</u>					Printed Name <u>Anika Kulkarni</u>					Printed Name _____					Printed Name _____					
Company <u>Landau Assoc. Inc.</u>					Company <u>ARI</u>					Company _____					Company _____					
Date <u>7/30/10</u> Time <u>345</u>					Date <u>7/30/10</u> Time <u>1515</u>					Date _____ Time _____					Date _____ Time _____					

RQ63 : 00001



Cooler Receipt Form

ARI Client: Landau

Project Name: Striker

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: RG63

Tracking No: _____ (NA)

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 10.6 ± 0.4

If cooler temperature is out of compliance fill out form 00070F

Cooler Accepted by: mm Date: 7/30/10 Time: 1515 Temp Gun ID#: _____

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: _____ (NA)

Was Sample Split by ARI: (NA) YES _____ Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: mm Date: 8/2/10 Time: 1000

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
Only 1 trip blank vial was provided for VOA and Gas analysis.

By: mm Date: 8/2/10

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Cooler Temperature Compliance Form

Cooler#:	Temperature(°C):	Sample ID	Bottle Count	Bottle Type
102	8.4 10.6	ALL SAMPLES OUT OF TEMP COMPLIANCE		
Cooler#:	Temperature(°C):	Sample ID	Bottle Count	Bottle Type
Cooler#:	Temperature(°C):	Sample ID	Bottle Count	Bottle Type
Cooler#:	Temperature(°C):	Sample ID	Bottle Count	Bottle Type

Completed by:

UMM

Date:

8/2/10

Time:

100



Inquiry Number: NONE
 Analysis Requested: 07/30/10
 Contact: Syverson, Tim
 Client: Landau Associates, Inc.
 Logged by: MM
 Sample Set Used: Yes-481
 Validatable Package: No
 Deliverables:

Project #: 0025195.020
 Project: Striker
 Sample Site:
 SDG No:
 Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
10-18374 RG63A	KSC-DP-5-GW-100730						TOT PASS															
10-18375 RG63B	KSC-DP-2-GW-100730						TOT															
10-18376 RG63C	KSC-DP-3-GW-100730						TOT															
10-18377 RG63D	KSC-DP-16-GW-100730						TOT															
10-18378 RG63E	KSC-DP-11-GW-100730						TOT															

RG63: 00007

Checked By MM Date 8/2/10

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-5-GW-100730

Page 1 of 2

SAMPLE

Lab Sample ID: RG63A


QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18374

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: 

Date Sampled: 07/30/10

Reported: 08/12/10

Date Received: 07/30/10

Instrument/Analyst: NT10/PKC

Sample Amount: 10.0 mL

Date Analyzed: 08/11/10 15:13

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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	
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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-5-GW-100730
SAMPLE

Lab Sample ID: RG63A
LIMS ID: 10-18374
Matrix: Water
Date Analyzed: 08/11/10 15:13

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

CAS Number	Analyte	RL	Result	Q
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
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	99.7%
d8-Toluene	100%
Bromofluorobenzene	98.5%
d4-1,2-Dichlorobenzene	104%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-2-GW-100730

Page 1 of 2

SAMPLE

Lab Sample ID: RG63B


QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18375

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: 

Date Sampled: 07/30/10

Reported: 08/12/10

Date Received: 07/30/10

Instrument/Analyst: NT10/PKC
Date Analyzed: 08/11/10 15:39

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	0.2	0.3	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	5.0	< 5.0	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	0.8	
156-59-2	cis-1,2-Dichloroethene	0.2	23	
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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-2-GW-100730
SAMPLE

Lab Sample ID: RG63B
LIMS ID: 10-18375
Matrix: Water
Date Analyzed: 08/11/10 15:39

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

CAS Number	Analyte	RL	Result	Q
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
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	99.7%
d8-Toluene	99.8%
Bromofluorobenzene	98.3%
d4-1,2-Dichlorobenzene	104%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-3-GW-100730

Page 1 of 2

SAMPLE

Lab Sample ID: RG63C


QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18376

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: 

Date Sampled: 07/30/10

Reported: 08/12/10

Date Received: 07/30/10

Instrument/Analyst: NT10/PKC

Sample Amount: 10.0 mL

Date Analyzed: 08/11/10 16:04

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	0.2	0.2	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-3-GW-100730
SAMPLE

Lab Sample ID: RG63C
LIMS ID: 10-18376
Matrix: Water
Date Analyzed: 08/11/10 16:04

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

CAS Number	Analyte	RL	Result	Q
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
110-57-6	trans-1,4-Dichloro-2-butene	1.0	< 1.0	U
108-67-8	1,3,5-Trimethylbenzene	0.2	0.5	
95-63-6	1,2,4-Trimethylbenzene	0.2	2.6	
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	0.3	
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	
99-87-6	4-Isopropyltoluene	0.2	0.3	
104-51-8	n-Butylbenzene	0.2	0.6	
120-82-1	1,2,4-Trichlorobenzene	0.5	< 0.5	U
91-20-3	Naphthalene	0.5	2.1	
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery


d4-1,2-Dichloroethane	101%
d8-Toluene	97.2%
Bromofluorobenzene	98.8%
d4-1,2-Dichlorobenzene	105%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: KSC-DP-16-GW-100730
SAMPLE

Lab Sample ID: RG63D
LIMS ID: 10-18377
Matrix: Water
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Instrument/Analyst: NT10/PKC
Date Analyzed: 08/11/10 16:29

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	0.2	1.8	
75-00-3	Chloroethane	0.2	< 0.2	U
75-09-2	Methylene Chloride	0.5	< 0.5	U
67-64-1	Acetone	5.0	5.8	
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	1.0	
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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-16-GW-100730

Page 2 of 2

SAMPLE

Lab Sample ID: RG63D

QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18377

Project: Striker

Matrix: Water

0025195.020

Date Analyzed: 08/11/10 16:29

CAS Number	Analyte	RL	Result	Q
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
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	99.7%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	104%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-11-GW-100730

Page 1 of 2

SAMPLE

Lab Sample ID: RG63E


QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18378

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: 

Date Sampled: 07/30/10

Reported: 08/12/10

Date Received: 07/30/10

Instrument/Analyst: NT10/PKC

Sample Amount: 10.0 mL

Date Analyzed: 08/11/10 16:54

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-11-GW-100730

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SAMPLE

Lab Sample ID: RG63E

QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18378

Project: Striker

Matrix: Water

0025195.020

Date Analyzed: 08/11/10 16:54

CAS Number	Analyte	RL	Result	Q
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
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	103%
d8-Toluene	98.5%
Bromofluorobenzene	99.7%
d4-1,2-Dichlorobenzene	105%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: TRIP BLANK
SAMPLE

Lab Sample ID: RG63F
LIMS ID: 10-18379
Matrix: Water
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Instrument/Analyst: NT10/PKC
Date Analyzed: 08/11/10 13:33

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: TRIP BLANK
SAMPLE

Page 2 of 2

Lab Sample ID: RG63F

QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18379

Project: Striker

Matrix: Water

0025195.020

Date Analyzed: 08/11/10 13:33

CAS Number	Analyte	RL	Result	Q
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
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	114%
d8-Toluene	97.3%
Bromofluorobenzene	99.3%
d4-1,2-Dichlorobenzene	110%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: RG63-Landau Associates, Inc.
 Project: Striker
 0025195.020

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-081110	Method Blank	10	101%	101%	98.5%	103%	0
LCS-081110	Lab Control	10	104%	101%	105%	104%	0
LCSD-081110	Lab Control Dup	10	104%	99.5%	96.4%	97.9%	0
RG63A	KSC-DP-5-GW-100730	10	99.7%	100%	98.5%	104%	0
RG63B	KSC-DP-2-GW-100730	10	99.7%	99.8%	98.3%	104%	0
RG63C	KSC-DP-3-GW-100730	10	101%	97.2%	98.8%	105%	0
RG63D	KSC-DP-16-GW-100730	10	102%	99.7%	101%	104%	0
RG63E	KSC-DP-11-GW-100730	10	103%	98.5%	99.7%	105%	0
RG63F	TRIP BLANK	10	114%	97.3%	99.3%	110%	0

LCS/MB LIMITS

QC LIMITS

SW8260C

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

70-132
 80-120
 80-120
 80-120

80-143
 80-120
 80-120
 80-120

Prep Method: SW5030B
 Log Number Range: 10-18374 to 10-18379

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-081110

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-081110

QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18374

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 08/12/10

Date Received: NA

Instrument/Analyst LCS: NT10/PKC

Sample Amount LCS: 10.0 mL

LCS: NT10/PKC

LCS: 10.0 mL

Date Analyzed LCS: 08/11/10 12:09

Purge Volume LCS: 10.0 mL

LCS: 08/11/10 12:34

LCS: 10.0 mL

Analyte	LCS	Spike	LCS	LCS	Spike	LCS	RPD
		Added-LCS	Recovery		Added-LCS	Recovery	
Chloromethane	9.7	10.0	97.0%	9.0	10.0	90.0%	7.5%
Bromomethane	11.7	10.0	117%	10.0	10.0	100%	15.7%
Vinyl Chloride	10.2	10.0	102%	9.7	10.0	97.0%	5.0%
Chloroethane	12.5	10.0	125%	9.5	10.0	95.0%	27.3%
Methylene Chloride	9.5	10.0	95.0%	8.9	10.0	89.0%	6.5%
Acetone	66.1	50.0	132%	49.1	50.0	98.2%	29.5%
Carbon Disulfide	10.8	10.0	108%	9.8	10.0	98.0%	9.7%
1,1-Dichloroethene	10.4	10.0	104%	9.6	10.0	96.0%	8.0%
1,1-Dichloroethane	9.9	10.0	99.0%	9.2	10.0	92.0%	7.3%
trans-1,2-Dichloroethene	9.7	10.0	97.0%	9.1	10.0	91.0%	6.4%
cis-1,2-Dichloroethene	9.7	10.0	97.0%	9.0	10.0	90.0%	7.5%
Chloroform	9.7	10.0	97.0%	9.2	10.0	92.0%	5.3%
1,2-Dichloroethane	10.1	10.0	101%	9.6	10.0	96.0%	5.1%
2-Butanone	57.4	50.0	115%	50.7	50.0	101%	12.4%
1,1,1-Trichloroethane	9.8	10.0	98.0%	9.1	10.0	91.0%	7.4%
Carbon Tetrachloride	9.7	10.0	97.0%	9.2	10.0	92.0%	5.3%
Vinyl Acetate	10.2	10.0	102%	9.9	10.0	99.0%	3.0%
Bromodichloromethane	9.9	10.0	99.0%	9.5	10.0	95.0%	4.1%
1,2-Dichloropropane	9.9	10.0	99.0%	9.7	10.0	97.0%	2.0%
cis-1,3-Dichloropropene	9.9	10.0	99.0%	9.7	10.0	97.0%	2.0%
Trichloroethene	9.8	10.0	98.0%	9.3	10.0	93.0%	5.2%
Dibromochloromethane	9.9	10.0	99.0%	9.8	10.0	98.0%	1.0%
1,1,2-Trichloroethane	10.0	10.0	100%	9.7	10.0	97.0%	3.0%
Benzene	10.0	10.0	100%	9.6	10.0	96.0%	4.1%
trans-1,3-Dichloropropene	11.6	10.0	116%	11.4	10.0	114%	1.7%
2-Chloroethylvinylether	9.9	10.0	99.0%	10.3	10.0	103%	4.0%
Bromoform	9.4	10.0	94.0%	10.4	10.0	104%	10.1%
4-Methyl-2-Pentanone (MIBK)	55.2	50.0	110%	53.8	50.0	108%	2.6%
2-Hexanone	52.2	50.0	104%	56.0	50.0	112%	7.0%
Tetrachloroethene	9.7	10.0	97.0%	9.8	10.0	98.0%	1.0%
1,1,2,2-Tetrachloroethane	9.7	10.0	97.0%	10.0	10.0	100%	3.0%
Toluene	10.0	10.0	100%	9.6	10.0	96.0%	4.1%
Chlorobenzene	10.0	10.0	100%	9.7	10.0	97.0%	3.0%
Ethylbenzene	10.0	10.0	100%	9.9	10.0	99.0%	1.0%
Styrene	10.6	10.0	106%	10.0	10.0	100%	5.8%
Trichlorofluoromethane	11.2	10.0	112%	9.6	10.0	96.0%	15.4%
1,1,2-Trichloro-1,2,2-trifluoroethane	10.9	10.0	109%	10.0	10.0	100%	8.6%
m,p-Xylene	21.1	20.0	106%	20.2	20.0	101%	4.4%
o-Xylene	10.5	10.0	105%	9.6	10.0	96.0%	9.0%
1,2-Dichlorobenzene	10.4	10.0	104%	9.6	10.0	96.0%	8.0%
1,3-Dichlorobenzene	10.2	10.0	102%	9.9	10.0	99.0%	3.0%
1,4-Dichlorobenzene	10.0	10.0	100%	9.7	10.0	97.0%	3.0%
Acrolein	55.9	50.0	112%	50.4	50.0	101%	10.3%
Methyl Iodide	10.8	10.0	108%	10.0	10.0	100%	7.7%
Bromoethane	10.4	10.0	104%	9.8	10.0	98.0%	5.9%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-081110

Page 2 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-081110

QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18374

Project: Striker

Matrix: Water

0025195.020

Analyte	Spike			LCS			RPD
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	
Acrylonitrile	11.3	10.0	113%	9.8	10.0	98.0%	14.2%
1,1-Dichloropropene	9.7	10.0	97.0%	9.3	10.0	93.0%	4.2%
Dibromomethane	10.1	10.0	101%	9.6	10.0	96.0%	5.1%
1,1,1,2-Tetrachloroethane	10.5	10.0	105%	9.7	10.0	97.0%	7.9%
1,2-Dibromo-3-chloropropane	10.7	10.0	107%	9.7	10.0	97.0%	9.8%
1,2,3-Trichloropropane	9.5	10.0	95.0%	10.5	10.0	105%	10.0%
trans-1,4-Dichloro-2-butene	10.2	10.0	102%	11.6	10.0	116%	12.8%
1,3,5-Trimethylbenzene	9.9	10.0	99.0%	9.9	10.0	99.0%	0.0%
1,2,4-Trimethylbenzene	10.2	10.0	102%	10.0	10.0	100%	2.0%
Hexachlorobutadiene	12.2	10.0	122%	8.2	10.0	82.0%	39.2%
Ethylene Dibromide	10.1	10.0	101%	9.6	10.0	96.0%	5.1%
Bromochloromethane	9.9	10.0	99.0%	9.2	10.0	92.0%	7.3%
2,2-Dichloropropane	9.8	10.0	98.0%	9.0	10.0	90.0%	8.5%
1,3-Dichloropropane	9.6	10.0	96.0%	10.2	10.0	102%	6.1%
Isopropylbenzene	9.7	10.0	97.0%	10.5	10.0	105%	7.9%
n-Propylbenzene	10.0	10.0	100%	10.6	10.0	106%	5.8%
Bromobenzene	9.1	10.0	91.0%	10.0	10.0	100%	9.4%
2-Chlorotoluene	9.7	10.0	97.0%	10.1	10.0	101%	4.0%
4-Chlorotoluene	9.6	10.0	96.0%	10.2	10.0	102%	6.1%
tert-Butylbenzene	10.1	10.0	101%	9.8	10.0	98.0%	3.0%
sec-Butylbenzene	10.8	10.0	108%	10.0	10.0	100%	7.7%
4-Isopropyltoluene	10.7	10.0	107%	9.8	10.0	98.0%	8.8%
n-Butylbenzene	11.1	10.0	111%	9.8	10.0	98.0%	12.4%
1,2,4-Trichlorobenzene	12.3	10.0	123%	8.6	10.0	86.0%	35.4%
Naphthalene	12.0	10.0	120%	8.8	10.0	88.0%	30.8%
1,2,3-Trichlorobenzene	12.6	10.0	126%	8.1	10.0	81.0%	43.5%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	104%	104%
d8-Toluene	101%	99.5%
Bromofluorobenzene	105%	96.4%
d4-1,2-Dichlorobenzene	104%	97.9%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: MB-081110
METHOD BLANK

Lab Sample ID: MB-081110
LIMS ID: 10-18374
Matrix: Water
Data Release Authorized: *AB*
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT10/PKC
Date Analyzed: 08/11/10 13:00

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: MB-081110
METHOD BLANK

Lab Sample ID: MB-081110
LIMS ID: 10-18374
Matrix: Water
Date Analyzed: 08/11/10 13:00

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

CAS Number	Analyte	RL	Result	Q
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
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	101%
d8-Toluene	101%
Bromofluorobenzene	98.5%
d4-1,2-Dichlorobenzene	103%

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

Sample ID: KSC-DP-5-GW-100730
SAMPLE

Lab Sample ID: RG63A
LIMS ID: 10-18374
Matrix: Water
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Date Extracted: 08/05/10
Date Analyzed: 08/10/10 22:26
Instrument/Analyst: NT6/JZ

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	1.0	< 1.0 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: KSC-DP-5-GW-100730
SAMPLE

Lab Sample ID: RG63A
LIMS ID: 10-18374
Matrix: Water
Date Analyzed: 08/10/10 22:26

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

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	5.0	< 5.0 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	2.0
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 µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.6%	2-Fluorobiphenyl	62.8%
d14-p-Terphenyl	68.8%	d4-1,2-Dichlorobenzene	60.0%
d5-Phenol	64.8%	2-Fluorophenol	62.9%
2,4,6-Tribromophenol	85.6%	d4-2-Chlorophenol	65.3%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-2-GW-100730
SAMPLE

Lab Sample ID: RG63B
LIMS ID: 10-18375
Matrix: Water
Data Release Authorized: *AB*
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Date Extracted: 08/05/10
Date Analyzed: 08/10/10 22:59
Instrument/Analyst: NT6/JZ

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	1.0	< 1.0 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: RG63B
LIMS ID: 10-18375
Matrix: Water
Date Analyzed: 08/10/10 22:59

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

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	5.0	< 5.0 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	66.0%	2-Fluorobiphenyl	63.2%
d14-p-Terphenyl	62.4%	d4-1,2-Dichlorobenzene	58.4%
d5-Phenol	63.2%	2-Fluorophenol	60.0%
2,4,6-Tribromophenol	79.5%	d4-2-Chlorophenol	64.5%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-3-GW-100730
SAMPLE

Lab Sample ID: RG63C
LIMS ID: 10-18376
Matrix: Water
Data Release Authorized: *RB*
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Date Extracted: 08/05/10
Date Analyzed: 08/11/10 14:53
Instrument/Analyst: NT6/JZ

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	1.0	< 1.0 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	1.3
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: KSC-DP-3-GW-100730
SAMPLE

Lab Sample ID: RG63C
LIMS ID: 10-18376
Matrix: Water
Date Analyzed: 08/11/10 14:53

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

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	5.0	< 5.0 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	3.1


Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.0%	2-Fluorobiphenyl	66.4%
d14-p-Terphenyl	86.4%	d4-1,2-Dichlorobenzene	58.8%
d5-Phenol	68.3%	2-Fluorophenol	62.9%
2,4,6-Tribromophenol	85.9%	d4-2-Chlorophenol	66.1%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-16-GW-100730
SAMPLE

Lab Sample ID: RG63D
LIMS ID: 10-18377
Matrix: Water
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Date Extracted: 08/05/10
Date Analyzed: 08/11/10 15:26
Instrument/Analyst: NT6/JZ

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	1.0	< 1.0 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: RG63D
LIMS ID: 10-18377
Matrix: Water
Date Analyzed: 08/11/10 15:26

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

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	5.0	< 5.0 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	72.0%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	82.4%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	70.9%	2-Fluorophenol	67.2%
2,4,6-Tribromophenol	84.3%	d4-2-Chlorophenol	70.1%

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Semivolatiles by SW8270D GC/MS
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Sample ID: KSC-DP-11-GW-100730
SAMPLE

Lab Sample ID: RG63E
LIMS ID: 10-18378
Matrix: Water
Data Release Authorized: 
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Date Extracted: 08/05/10
Date Analyzed: 08/11/10 15:59
Instrument/Analyst: NT6/JZ

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	1.0	< 1.0 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: KSC-DP-11-GW-100730
SAMPLE

Lab Sample ID: RG63E
LIMS ID: 10-18378
Matrix: Water
Date Analyzed: 08/11/10 15:59

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

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	5.0	< 5.0 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	65.2%	2-Fluorobiphenyl	64.8%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	60.8%
d5-Phenol	66.1%	2-Fluorophenol	62.7%
2,4,6-Tribromophenol	84.0%	d4-2-Chlorophenol	64.3%

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: RG63-Landau Associates, Inc.

Project: Striker

0025195.020

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT	OUT
MB-080510	75.6%	67.6%	85.2%	63.6%	75.5%	73.9%	94.9%	75.7%	0	
LCS-080510	76.4%	67.2%	80.8%	67.6%	76.8%	73.9%	87.2%	74.9%	0	
LCSD-080510	74.4%	66.4%	80.8%	64.4%	76.3%	71.5%	87.2%	72.8%	0	
KSC-DP-5-GW-100730	65.6%	62.8%	68.8%	60.0%	64.8%	62.9%	85.6%	65.3%	0	
KSC-DP-2-GW-100730	66.0%	63.2%	62.4%	58.4%	63.2%	60.0%	79.5%	64.5%	0	
KSC-DP-3-GW-100730	68.0%	66.4%	86.4%	58.8%	68.3%	62.9%	85.9%	66.1%	0	
KSC-DP-16-GW-10073	72.0%	68.8%	82.4%	64.4%	70.9%	67.2%	84.3%	70.1%	0	
KSC-DP-11-GW-10073	65.2%	64.8%	72.0%	60.8%	66.1%	62.7%	84.0%	64.3%	0	

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(46-100)	(39-100)
(FBP) = 2-Fluorobiphenyl	(49-100)	(42-100)
(TPH) = d14-p-Terphenyl	(53-119)	(26-114)
(DCB) = d4-1,2-Dichlorobenzene	(38-100)	(32-100)
(PHL) = d5-Phenol	(50-100)	(41-100)
(2FP) = 2-Fluorophenol	(46-100)	(38-100)
(TBP) = 2,4,6-Tribromophenol	(52-123)	(48-118)
(2CP) = d4-2-Chlorophenol	(53-100)	(44-100)

Prep Method: SW3520C

Log Number Range: 10-18374 to 10-18378

FORM-II SW8270

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

Sample ID: LCS-080510
LCS/LCSD

Lab Sample ID: LCS-080510
LIMS ID: 10-18374
Matrix: Water
Data Release Authorized:
Reported: 08/12/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Date Extracted LCS/LCSD: 08/05/10

Sample Amount LCS: 500 mL
LCSD: 500 mL

Date Analyzed LCS: 08/10/10 21:21
LCSD: 08/10/10 21:53

Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL

Instrument/Analyst LCS: NT6/JZ
LCSD: NT6/JZ

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	16.2	25.0	64.8%	16.4	25.0	65.6%	1.2%
Bis-(2-Chloroethyl) Ether	16.2	25.0	64.8%	16.3	25.0	65.2%	0.6%
2-Chlorophenol	15.2	25.0	60.8%	15.3	25.0	61.2%	0.7%
1,3-Dichlorobenzene	10.9	25.0	43.6%	11.1	25.0	44.4%	1.8%
1,4-Dichlorobenzene	10.9	25.0	43.6%	11.1	25.0	44.4%	1.8%
Benzyl Alcohol	48.6	50.0	97.2%	49.0	50.0	98.0%	0.8%
1,2-Dichlorobenzene	11.5	25.0	46.0%	11.7	25.0	46.8%	1.7%
2-Methylphenol	15.4	25.0	61.6%	15.5	25.0	62.0%	0.6%
2,2'-Oxybis(1-Chloropropane)	16.9	25.0	67.6%	17.2	25.0	68.8%	1.8%
4-Methylphenol	31.8	50.0	63.6%	32.4	50.0	64.8%	1.9%
N-Nitroso-Di-N-Propylamine	15.9	25.0	63.6%	15.5	25.0	62.0%	2.5%
Hexachloroethane	10.3	25.0	41.2%	10.4	25.0	41.6%	1.0%
Nitrobenzene	15.1	25.0	60.4%	15.4	25.0	61.6%	2.0%
Isophorone	18.2	25.0	72.8%	18.3	25.0	73.2%	0.5%
2-Nitrophenol	16.0	25.0	64.0%	16.1	25.0	64.4%	0.6%
2,4-Dimethylphenol	8.3	25.0	33.2%	9.3	25.0	37.2%	10.5%
Benzoic Acid	63.6	75.0	84.8%	64.4	75.0	85.9%	1.2%
bis(2-Chloroethoxy) Methane	16.4	25.0	65.6%	16.0	25.0	64.0%	2.5%
2,4-Dichlorophenol	15.8	25.0	63.2%	16.1	25.0	64.4%	1.9%
1,2,4-Trichlorobenzene	11.1	25.0	44.4%	11.3	25.0	45.2%	1.8%
Naphthalene	14.1	25.0	56.4%	14.5	25.0	58.0%	2.8%
4-Chloroaniline	44.9	60.0	74.8%	45.2	60.0	75.3%	0.7%
Hexachlorobutadiene	10.4	25.0	41.6%	10.5	25.0	42.0%	1.0%
4-Chloro-3-methylphenol	17.0	25.0	68.0%	16.8	25.0	67.2%	1.2%
2-Methylnaphthalene	14.8	25.0	59.2%	14.9	25.0	59.6%	0.7%
Hexachlorocyclopentadiene	15.0	75.0	20.0%	16.2	75.0	21.6%	7.7%
2,4,6-Trichlorophenol	15.2	25.0	60.8%	16.6	25.0	66.4%	8.8%
2,4,5-Trichlorophenol	15.9	25.0	63.6%	16.1	25.0	64.4%	1.2%
2-Chloronaphthalene	13.8	25.0	55.2%	13.7	25.0	54.8%	0.7%
2-Nitroaniline	18.0	25.0	72.0%	18.6	25.0	74.4%	3.3%
Dimethylphthalate	15.3	25.0	61.2%	15.7	25.0	62.8%	2.6%
Acenaphthylene	14.3	25.0	57.2%	14.5	25.0	58.0%	1.4%
3-Nitroaniline	50.1	64.0	78.3%	51.7	64.0	80.8%	3.1%
Acenaphthene	14.1	25.0	56.4%	14.6	25.0	58.4%	3.5%
2,4-Dinitrophenol	70.2 Q	75.0	93.6%	73.8 Q	75.0	98.4%	5.0%
4-Nitrophenol	12.9	25.0	51.6%	13.0	25.0	52.0%	0.8%
Dibenzofuran	16.0	25.0	64.0%	16.3	25.0	65.2%	1.9%
2,6-Dinitrotoluene	15.5	25.0	62.0%	16.2	25.0	64.8%	4.4%
2,4-Dinitrotoluene	16.6	25.0	66.4%	17.4	25.0	69.6%	4.7%
Diethylphthalate	15.8	25.0	63.2%	16.3	25.0	65.2%	3.1%
4-Chlorophenyl-phenylether	14.4	25.0	57.6%	14.8	25.0	59.2%	2.7%
Fluorene	15.8	25.0	63.2%	16.2	25.0	64.8%	2.5%
4-Nitroaniline	15.0	25.0	60.0%	15.9	25.0	63.6%	5.8%
4,6-Dinitro-2-Methylphenol	59.7	75.0	79.6%	61.8	75.0	82.4%	3.5%
N-Nitrosodiphenylamine	12.4	25.0	49.6%	12.4	25.0	49.6%	0.0%

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

Sample ID: LCS-080510
LCS/LCSD

Lab Sample ID: LCS-080510
LIMS ID: 10-18374
Matrix: Water
Date Analyzed LCS: 08/10/10 21:21
LCSD: 08/10/10 21:53

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	14.5	25.0	58.0%	14.8	25.0	59.2%	2.0%
Hexachlorobenzene	15.2	25.0	60.8%	15.6	25.0	62.4%	2.6%
Pentachlorophenol	11.8	25.0	47.2%	11.8	25.0	47.2%	0.0%
Phenanthrene	16.1	25.0	64.4%	16.3	25.0	65.2%	1.2%
Carbazole	15.5	25.0	62.0%	16.0	25.0	64.0%	3.2%
Anthracene	15.1	25.0	60.4%	15.4	25.0	61.6%	2.0%
Di-n-Butylphthalate	16.5	25.0	66.0%	16.9	25.0	67.6%	2.4%
Fluoranthene	18.1	25.0	72.4%	18.6	25.0	74.4%	2.7%
Pyrene	17.0	25.0	68.0%	17.5	25.0	70.0%	2.9%
Butylbenzylphthalate	15.5	25.0	62.0%	16.0	25.0	64.0%	3.2%
3,3'-Dichlorobenzidine	39.6	64.0	61.9%	38.8	64.0	60.6%	2.0%
Benzo(a)anthracene	17.4	25.0	69.6%	18.1	25.0	72.4%	3.9%
bis(2-Ethylhexyl)phthalate	16.3	25.0	65.2%	17.7	25.0	70.8%	8.2%
Chrysene	17.4	25.0	69.6%	17.8	25.0	71.2%	2.3%
Di-n-Octyl phthalate	16.1	25.0	64.4%	16.3	25.0	65.2%	1.2%
Benzo(b)fluoranthene	18.5	25.0	74.0%	16.8	25.0	67.2%	9.6%
Benzo(k)fluoranthene	17.3	25.0	69.2%	17.1	25.0	68.4%	1.2%
Benzo(a)pyrene	13.9	25.0	55.6%	14.2	25.0	56.8%	2.1%
Indeno(1,2,3-cd)pyrene	12.1	25.0	48.4%	12.0	25.0	48.0%	0.8%
Dibenz(a,h)anthracene	13.3	25.0	53.2%	13.2	25.0	52.8%	0.8%
Benzo(g,h,i)perylene	10.3	25.0	41.2%	10.3	25.0	41.2%	0.0%
1-Methylnaphthalene	15.2	25.0	60.8%	15.0	25.0	60.0%	1.3%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	76.4%	74.4%
2-Fluorobiphenyl	67.2%	66.4%
d14-p-Terphenyl	80.8%	80.8%
d4-1,2-Dichlorobenzene	67.6%	64.4%
d5-Phenol	76.8%	76.3%
2-Fluorophenol	73.9%	71.5%
2,4,6-Tribromophenol	87.2%	87.2%
d4-2-Chlorophenol	74.9%	72.8%

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

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Page 1 of 2Sample ID: MB-080510
METHOD BLANKLab Sample ID: MB-080510
LIMS ID: 10-18374
Matrix: Water
Data Release Authorized: *VIS*
Reported: 08/20/10QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: NA
Date Received: NADate Extracted: 08/05/10
Date Analyzed: 08/10/10 20:48
Instrument/Analyst: NT6/JZSample 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	1.0	< 1.0 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

Sample ID: MB-080510
 METHOD BLANK

Lab Sample ID: MB-080510
 LIMS ID: 10-18374
 Matrix: Water
 Date Analyzed: 08/10/10 20:48

QC Report No: RG63-Landau Associates, Inc.
 Project: Striker
 0025195.020

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	5.0	< 5.0 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	75.6%	2-Fluorobiphenyl	67.6%
d14-p-Terphenyl	85.2%	d4-1,2-Dichlorobenzene	63.6%
d5-Phenol	75.5%	2-Fluorophenol	73.9%
2,4,6-Tribromophenol	94.9%	d4-2-Chlorophenol	75.7%

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water

QC Report No: RG63-Landau Associates, Inc.

Project: Striker

Event: 0025195.020

Date Sampled: 07/30/10

Date Received: 07/30/10

Data Release Authorized: *MW*

Reported: 08/10/10

ARI ID	Client ID	Analysis Date	DL	Range	Result
MB-080410 10-18374	Method Blank	08/04/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 101% 102%
RG63A 10-18374	KSC-DP-5-GW-100730	08/04/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 100% 101%
RG63B 10-18375	KSC-DP-2-GW-100730	08/04/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 109% 108%
RG63C 10-18376	KSC-DP-3-GW-100730	08/04/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	0.36 GRO 105% 103%
RG63D 10-18377	KSC-DP-16-GW-100730	08/04/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 101% 100%
RG63E 10-18378	KSC-DP-11-GW-100730	08/04/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 102% 99.9%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: RG63
Matrix: Water

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
Event: 0025195.020

<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
MB-080410	101%	102%	0
LCS-080410	102%	101%	0
LCSD-080410	103%	103%	0
KSC-DP-5-GW-100730	100%	101%	0
KSC-DP-2-GW-100730	109%	108%	0
KSC-DP-3-GW-100730	105%	103%	0
KSC-DP-16-GW-10073	101%	100%	0
KSC-DP-11-GW-10073	102%	99.9%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 10-18374 to 10-18378

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-080410
LAB CONTROL SAMPLE

Lab Sample ID: LCS-080410
LIMS ID: 10-18374
Matrix: Water
Data Release Authorized: *WVW*
Reported: 08/10/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
Event: 0025195.020
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 08/04/10 07:47
LCSD: 08/04/10 08:11
Instrument/Analyst LCS: PID3/MH
LCSD: PID3/MH

Purge Volume: 5.0 mL
Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS	Spike	LCS	LCS	Spike	LCS	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
Gasoline Range Hydrocarbons	1.01	1.00	101%	1.00	1.00	100%	1.0%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.


TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	102%	103%
Bromobenzene	101%	103%

**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: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

Data Release Authorized: 
Reported: 08/05/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-080310 10-18374	Method Blank HC ID: ---	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 74.5%
RG63A 10-18374	KSC-DP-5-GW-100730 HC ID: ---	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 91.5%
RG63B 10-18375	KSC-DP-2-GW-100730 HC ID: MOTOR OIL	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U 0.27 93.0%
RG63C 10-18376	KSC-DP-3-GW-100730 HC ID: DRO	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	0.11 < 0.20 U 83.4%
RG63D 10-18377	KSC-DP-16-GW-100730 HC ID: ---	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 95.3%
RG63E 10-18378	KSC-DP-11-GW-100730 HC ID: ---	08/03/10	08/04/10 FID3B	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 94.9%

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.

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-080310	74.5%	0
LCS-080310	82.9%	0
LCSD-080310	84.4%	0
KSC-DP-5-GW-100730	91.5%	0
KSC-DP-2-GW-100730	93.0%	0
KSC-DP-3-GW-100730	83.4%	0
KSC-DP-16-GW-100730	95.3%	0
KSC-DP-11-GW-100730	94.9%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(51-120)

(41-121)

Prep Method: SW3510C
Log Number Range: 10-18374 to 10-18378

FORM-II TPHD

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: LCS-080310
LCS/LCSD

Lab Sample ID: LCS-080310
LIMS ID: 10-18374
Matrix: Water
Data Release Authorized: *AB*
Reported: 08/05/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Date Extracted LCS/LCSD: 08/03/10
Date Analyzed LCS: 08/04/10 20:10
LCSD: 08/04/10 20:29
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	1.86	3.00	62.0%	1.95	3.00	65.0%	4.7%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	82.9%	84.4%

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

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 07/30/10

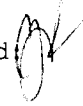
ARI Job: RG63
Project: Striker
0025195.020

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
10-18374-080310MB1	Method Blank	500 mL	1.00 mL	08/03/10
10-18374-080310LCS1	Lab Control	500 mL	1.00 mL	08/03/10
10-18374-080310LCSD1	Lab Control Dup	500 mL	1.00 mL	08/03/10
10-18374-RG63A	KSC-DP-5-GW-100730	500 mL	1.00 mL	08/03/10
10-18375-RG63B	KSC-DP-2-GW-100730	500 mL	1.00 mL	08/03/10
10-18376-RG63C	KSC-DP-3-GW-100730	500 mL	1.00 mL	08/03/10
10-18377-RG63D	KSC-DP-16-GW-100730	500 mL	1.00 mL	08/03/10
10-18378-RG63E	KSC-DP-11-GW-100730	500 mL	1.00 mL	08/03/10

Diesel Extraction Report

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-5-GW-100730
SAMPLE

Lab Sample ID: RG63A
LIMS ID: 10-18374
Matrix: Water
Data Release Authorized 
Reported: 08/11/10

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	08/03/10	6010B	08/10/10	7440-38-2	Arsenic	0.05	0.12	
6010B	08/03/10	6010B	08/10/10	7440-43-9	Cadmium	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7440-47-3	Chromium	0.005	0.005	U
6010B	08/03/10	6010B	08/10/10	7440-50-8	Copper	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7439-92-1	Lead	0.02	0.02	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.0001	0.0001	U
6010B	08/03/10	6010B	08/10/10	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS


Page 1 of 1

Sample ID: KSC-DP-2-GW-100730
SAMPLE

Lab Sample ID: RG63B

LIMS ID: 10-18375

Matrix: Water

Data Release Authorized: 

Reported: 08/11/10

QC Report No: RG63-Landau Associates, Inc.

Project: Striker

0025195.020

Date Sampled: 07/30/10

Date Received: 07/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	08/03/10	6010B	08/10/10	7440-38-2	Arsenic	0.05	0.05	U
6010B	08/03/10	6010B	08/10/10	7440-43-9	Cadmium	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7440-47-3	Chromium	0.005	0.005	U
6010B	08/03/10	6010B	08/10/10	7440-50-8	Copper	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7439-92-1	Lead	0.02	0.02	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.0001	0.0001	U
6010B	08/03/10	6010B	08/10/10	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

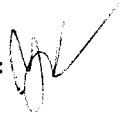
Page 1 of 1

Sample ID: KSC-DP-3-GW-100730
SAMPLE

Lab Sample ID: RG63C

LIMS ID: 10-18376

Matrix: Water

Data Release Authorized: 

Reported: 08/11/10

QC Report No: RG63-Landau Associates, Inc.

Project: Striker

0025195.020

Date Sampled: 07/30/10

Date Received: 07/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	08/03/10	6010B	08/10/10	7440-38-2	Arsenic	0.05	0.05	U
6010B	08/03/10	6010B	08/10/10	7440-43-9	Cadmium	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7440-47-3	Chromium	0.005	0.005	U
6010B	08/03/10	6010B	08/10/10	7440-50-8	Copper	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7439-92-1	Lead	0.02	0.02	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.0001	0.0001	U
6010B	08/03/10	6010B	08/10/10	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS


Page 1 of 1

Sample ID: KSC-DP-16-GW-100730
SAMPLE

Lab Sample ID: RG63D

LIMS ID: 10-18377

Matrix: Water

Data Release Authorized: 

Reported: 08/11/10

QC Report No: RG63-Landau Associates, Inc.

Project: Striker

0025195.020

Date Sampled: 07/30/10

Date Received: 07/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	08/03/10	6010B	08/10/10	7440-38-2	Arsenic	0.05	0.06	
6010B	08/03/10	6010B	08/10/10	7440-43-9	Cadmium	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7440-47-3	Chromium	0.005	0.005	U
6010B	08/03/10	6010B	08/10/10	7440-50-8	Copper	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7439-92-1	Lead	0.02	0.02	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.0001	0.0001	U
6010B	08/03/10	6010B	08/10/10	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

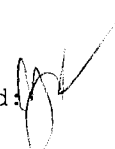
Page 1 of 1

Sample ID: KSC-DP-11-GW-100730
SAMPLE

Lab Sample ID: RG63E

LIMS ID: 10-18378

Matrix: Water

Data Release Authorized: 

Reported: 08/11/10

QC Report No: RG63-Landau Associates, Inc.

Project: Striker

0025195.020

Date Sampled: 07/30/10

Date Received: 07/30/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	08/03/10	6010B	08/10/10	7440-38-2	Arsenic	0.05	0.05	U
6010B	08/03/10	6010B	08/10/10	7440-43-9	Cadmium	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7440-47-3	Chromium	0.005	0.005	U
6010B	08/03/10	6010B	08/10/10	7440-50-8	Copper	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7439-92-1	Lead	0.02	0.02	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.0001	0.0001	U
6010B	08/03/10	6010B	08/10/10	7440-66-6	Zinc	0.01	0.01	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: RG63LCS


QC Report No: RG63-Landau Associates, Inc.

LIMS ID: 10-18374

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: 

Date Sampled: NA

Reported: 08/11/10

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	1.95	2.00	97.5%	
Cadmium	6010B	0.490	0.500	98.0%	
Chromium	6010B	0.493	0.500	98.6%	
Copper	6010B	0.475	0.500	95.0%	
Lead	6010B	1.90	2.00	95.0%	
Mercury	7470A	0.0020	0.0020	100%	
Zinc	6010B	0.49	0.50	98.0%	

Reported in mg/L

N-Control limit not met

Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

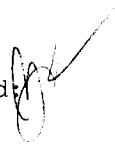
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: RG63MB

LIMS ID: 10-18374

Matrix: Water

Data Release Authorized: 

Reported: 08/11/10

QC Report No: RG63-Landau Associates, Inc.

Project: Striker

0025195.020

Date Sampled: NA

Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	08/03/10	6010B	08/10/10	7440-38-2	Arsenic	0.05	0.05	U
6010B	08/03/10	6010B	08/10/10	7440-43-9	Cadmium	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7440-47-3	Chromium	0.005	0.005	U
6010B	08/03/10	6010B	08/10/10	7440-50-8	Copper	0.002	0.002	U
6010B	08/03/10	6010B	08/10/10	7439-92-1	Lead	0.02	0.02	U
7470A	08/03/10	7470A	08/04/10	7439-97-6	Mercury	0.0001	0.0001	U
6010B	08/03/10	6010B	08/10/10	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
Hexavalent Chrome by Method SM3500Cr-D



Data Release Authorized: *[Signature]*
Reported: 08/10/10
Date Received: 07/30/10
Page 1 of 1

QC Report No: RG63-Landau Associates, Inc.
Project: Striker
0025195.020


Client/ ARI ID	Date Sampled	Matrix	Analysis Date & Batch	RL	Result
KSC-DP-5-GW-100730 RG63A 10-18374	07/30/10	Water	07/30/10 15:45 073010#1	0.010	0.049
KSC-DP-2-GW-100730 RG63B 10-18375	07/30/10	Water	07/30/10 15:45 073010#1	0.010	0.040
KSC-DP-3-GW-100730 RG63C 10-18376	07/30/10	Water	07/30/10 15:45 073010#1	0.010	0.032
KSC-DP-16-GW-100730 RG63D 10-18377	07/30/10	Water	07/30/10 15:45 073010#1	0.010	0.038
KSC-DP-11-GW-100730 RG63E 10-18378	07/30/10	Water	07/30/10 15:45 073010#1	0.010	0.040

Reported in mg/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
RG63-Landau Associates, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 08/10/10

Project: Striker
Event: 0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: RG63A Client ID: KSC-DP-5-GW-100730						
Hexavalent Chrome	07/30/10	mg/L	0.049	0.049	0.627	0.0%
Hexavalent Chrome	07/30/10	mg/L	0.049	0.049	0.627	0.0%

REPLICATE RESULTS-CONVENTIONALS
RG63-Landau Associates, Inc.



Matrix: Water
Data Release Authorized
Reported: 08/10/10


A handwritten signature in black ink, appearing to be a stylized name, located to the right of the matrix information.

Project: Striker
Event: 0025195.020
Date Sampled: 07/30/10
Date Received: 07/30/10

Analyte	Date	Units	Sample	Replicate (s)	RPD/RSD
ARI ID: RG63A Client ID: KSC-DP-5-GW-100730					
Hexavalent Chrome	07/30/10	mg/L	0.049	0.045	8.5%

METHOD BLANK RESULTS-CONVENTIONALS
RG63-Landau Associates, Inc.




Matrix: Water
Data Release Authorized: 
Reported: 08/10/10

Project: Striker
Event: 0025195.020
Date Sampled: NA
Date Received: NA

Analyte	Date/Time	Units	Blank
Hexavalent Chrome	07/30/10 15:45	mg/L	< 0.010 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
RG63-Landau Associates, Inc.



Matrix: Water
Data Release Authorized: 
Reported: 08/10/10

Project: Striker
Event: 0025195.020
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date/Time	Units	SRM	True Value	Recovery
Hexavalent Chrome ERA #41065	07/30/10 15:45	mg/L	0.642	0.630	101.9%



Analytical Resources, Incorporated
Analytical Chemists and Consultants

August 18, 2010

Tim Syverson
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker 025195.020
ARI Job: RI68

Dear Tim,

Enclosed, please find the original Chain-of-Custody (COC) records, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) originally accepted these six water samples in good condition on July 30, 2010 under sample delivery groups (SDGs) RG63 and RG74. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms. Per Landau Associates, samples were allowed to settle and sample aliquot was collected from the clear portion.

The samples were analyzed for Dissolved Arsenic by method 200.8. They were originally analyzed by method 6010B in ARI SDGs RG63 and RG74

There were no other irregularities with the 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

A handwritten signature in black ink, appearing to read "Eric Branson".

Eric Branson
Project Manager
-for-

Kelly Bottem
Client Services Manager
(206) 695-6211
kellyb@arilabs.com
www.arilabs.com



R963

- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
-

Date 07/30/10
 Page 1 of 1

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>0025195.020</u>					Testing Parameters										Turnaround Time				
Project Location/Event <u>Striker Property</u>					<div style="display: flex; justify-content: space-around; font-size: small;"> VOCsNWTPH-GxNWTPH-DxSVOCTotal MetalsCr6 </div>										<input checked="" type="checkbox"/> Standard				
Sampler's Name <u>SED/PRR/CFB</u>															<input type="checkbox"/> Accelerated				
Project Contact <u>Joe Flaherty (Bohns) / Tim Syverson</u>															<input type="checkbox"/>				
Send Results To <u>same</u>																			
Sample I.D.	Date	Time	Matrix	No. of Containers											Observations/Comments				
KSL-DP-5-GW-100730	7/30/10	0810	H ₂ O	11	X	X	X	X	X	X									X Allow water samples to settle, collect aliquot from clear portion
KSL-DP-2-GW-100730	7/30/10	0946	H ₂ O	11	X	X	X	X	X	X									X NWTPH-Dx - run acid wash/silica gel cleanup
KSC-DP-3-GW-100730	7/30/10	1025	H ₂ O	11	X	X	X	X	X	X									
KSL-DP-16-GW-100730	7/30/10	1220	H ₂ O	11	X	X	X	X	X	X									
KSC-DP-11-GW-100730	7/30/10	1321	H ₂ O	11	X	X	X	X	X	X									
Trip blanks			water		X	X													
Special Shipment/Handling or Storage Requirements <u>store at 4°C 2 coolers</u>					Method of Shipment <u>hand delivered</u>														
Relinquished by <u>[Signature]</u>		Received by <u>[Signature]</u>		Relinquished by		Received by													
Signature		Signature		Signature		Signature													
Printed Name <u>Paul Raymick</u>		Printed Name <u>Mikhael Lumban</u>		Printed Name		Printed Name													
Company <u>Landau Assoc. Inc.</u>		Company <u>ARI</u>		Company		Company													
Date <u>7/30/10</u> Time <u>345</u>		Date <u>7/30/10</u> Time <u>1515</u>		Date		Date													



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Landau

Project Name: Striker

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: RG63

Tracking No: _____ (NA)

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 10.6 0.4

If cooler temperature is out of compliance fill out form 00070F

Cooler Accepted by: WMM Date: 7/30/10 Time: 1515 Temp Gun ID#: _____

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: _____ (NA)

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: WMM Date: 8/2/10 Time: 1000

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
Only 1 trip blank vial was provided for VOA and Gas analysis.

By: WMM Date: 8/2/10

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Cooler Temperature Compliance Form

Cooler#:	Temperature(°C):	
Sample ID	Bottle Count	Bottle Type
ALL SAMPLES OUT OF TEMP COMPLIANCE		

Cooler#:	Temperature(°C):	
Sample ID	Bottle Count	Bottle Type

Cooler#:	Temperature(°C):	
Sample ID	Bottle Count	Bottle Type

Cooler#:	Temperature(°C):	
Sample ID	Bottle Count	Bottle Type

Completed by: UMM Date: 8/2/10 Time: 100



Inquiry Number: NONE
 Analysis Requested: 07/30/10
 Contact: Syverson, Tim
 Client: Landau Associates, Inc.
 Logged by: MM
 Sample Set Used: Yes-481
 Validatable Package: No
 Deliverables:

PC: Kelly
 VTSR: 07/30/10

Project #: 0025195.020
 Project: Striker
 Sample Site:
 SDG No:
 Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
10-18374 RG63A	KSC-DP-5-GW-100730						DIS									Y						
10-18375 RG63B	KSC-DP-2-GW-100730						DIS									Y						
10-18376 RG63C	KSC-DP-3-GW-100730						DIS									Y						
10-18377 RG63D	KSC-DP-16-GW-100730						DIS									Y						
10-18378 RG63E	KSC-DP-11-GW-100730						DIS									Y						

Checked By MM Date 8/3/10

RG74

- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____



Date 07/30/10
Page 1 of 1

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>025195.020</u>					Testing Parameters					Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____	
Project Location/Event <u>Striker property</u>					<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOC</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH-Dx</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH-Gx</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOC</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> </div>						
Sampler's Name <u>SED / PRR</u>											
Project Contact <u>Joe Flaherty & Tim Syverson</u>											
Send Results To <u>same</u>											
Sample I.D.	Date	Time	Matrix	No. of Containers	VOC	TPH-Dx	TPH-Gx	SVOC	Total Metals	Observations/Comments	
<u>KSC-DP-15-6W-100730</u>	<u>7/30/10</u>	<u>1610</u>	<u>H2O</u>	<u>11</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>X</u> 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 <u>✓</u> Dissolved metal water samples field filtered Other <u>arsenic, cadmium, chromium, copper, lead, mercury, zinc</u>	
Special Shipment/Handling or Storage Requirements <u>store @ 40C</u>										Method of Shipment <u>hand delivered</u>	
Relinquished by <u>[Signature]</u> Signature <u>Susan Dickerson</u> Printed Name <u>CAI</u> Company Date <u>7/30/10</u> Time <u>1730</u>			Received by <u>[Signature]</u> Signature <u>Jennifer Mitchell</u> Printed Name <u>ARI</u> Company Date <u>7/30/10</u> Time <u>1730</u>			Relinquished by _____ Signature _____ Printed Name _____ Company Date _____ Time _____			Received by _____ Signature _____ Printed Name _____ Company Date _____ Time _____		



Cooler Receipt Form

ARI Client: Striker

Project Name: Striker Property

COC No(s): _____

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: RG74 ^{NA}

Tracking No: _____ ^{NA}

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 3.1

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 70941619

Cooler Accepted by: JM Date: 7/30/10 Time: 1730

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI..... NA

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 8/2/10 Time: 1037

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
 1 trip blank received, not indicated on COC.
 COC reads 11 container sent, but only 10 container sent.
 By: JM Date: 8/2/10

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

PRESERVATION VERIFICATION 08/02/10

Page 1 of 1




ARI Job No: RG74

PC: Kelly
VTSR: 07/30/10

Inquiry Number: NONE
 Analysis Requested: 08/02/10
 Contact: Syverson, Tim
 Client: Landau Associates, Inc.
 Logged by: MM
 Sample Set Used: Yes-481
 Validatable Package: No
 Deliverables:

Project #: 025195.020
 Project: Skriker
 Sample Site:
 SDG No:
 Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
10-18401 RG74A	KSC-DP-15-GW-100730						DIS pass									Y						

Checked By  Date 8/2/10

PRESERVATION VERIFICATION 08/13/10

Page 1 of 1



ARI Job No: RI68

PC: Kelly
VTSR: 08/13/10

Inquiry Number: NONE
Analysis Requested: 08/13/10
Contact: Hooper, Kristin
Client: Landau Associates
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: Yes
Deliverables:


Project #: 0025195.020
Project: Striker
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
10-19830 RI68A	KSC-DP-5-GW-100730						DIS															
10-19831 RI68B	KSC-DP-2-GW-100730						DIS															
10-19832 RI68C	KSC-DP-3-GW-100730						DIS															
10-19833 RI68D	KSC-DP-16-GW-100730						DIS															
10-19834 RI68E	KSC-DP-11-GW-100730						DIS															
10-19835 RI68F	KSC-DP-15-GW-100730						DIS															

Checked By JM Date 8/13/10

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-5-GW-100730
SAMPLE

Lab Sample ID: RI68A
LIMS ID: 10-19830
Matrix: Water
Data Release Authorized: 
Reported: 08/18/10

QC Report No: RI68-Landau Associates
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 08/13/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/16/10	200.8	08/17/10	7440-38-2	Arsenic	0.2	114	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS


Page 1 of 1

Sample ID: KSC-DP-2-GW-100730
SAMPLE

Lab Sample ID: RI68B

LIMS ID: 10-19831

Matrix: Water

Data Release Authorized: 

Reported: 08/18/10

QC Report No: RI68-Landau Associates

Project: Striker

0025195.020

Date Sampled: 07/30/10

Date Received: 08/13/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/16/10	200.8	08/17/10	7440-38-2	Arsenic	0.5	8.1	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: KSC-DP-3-GW-100730

SAMPLE

Lab Sample ID: RI68C


QC Report No: RI68-Landau Associates

LIMS ID: 10-19832

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: 

Date Sampled: 07/30/10

Reported: 08/18/10

Date Received: 08/13/10

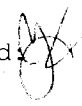
Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/16/10	200.8	08/17/10	7440-38-2	Arsenic	0.2	40.3	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
 Page 1 of 1

Sample ID: KSC-DP-16-GW-100730
 SAMPLE

Lab Sample ID: RI68D
 LIMS ID: 10-19833
 Matrix: Water
 Data Release Authorized: 
 Reported: 08/18/10


QC Report No: RI68-Landau Associates
 Project: Striker
 0025195.020
 Date Sampled: 07/30/10
 Date Received: 08/13/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/16/10	200.8	08/17/10	7440-38-2	Arsenic	0.2	53.3	

U-Analyte undetected at given RL
 RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-11-GW-100730
SAMPLE

Lab Sample ID: RI68E
LIMS ID: 10-19834
Matrix: Water
Data Release Authorized: 
Reported: 08/18/10


QC Report No: RI68-Landau Associates
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 08/13/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/16/10	200.8	08/17/10	7440-38-2	Arsenic	0.2	43.8	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-15-GW-100730
SAMPLE

Lab Sample ID: RI68F
LIMS ID: 10-19835
Matrix: Water
Data Release Authorized: 
Reported: 08/18/10

QC Report No: RI68-Landau Associates
Project: Striker
0025195.020
Date Sampled: 07/30/10
Date Received: 08/13/10

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/16/10	200.8	08/17/10	7440-38-2	Arsenic	0.2	9.1	

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: RI68LCS


QC Report No: RI68-Landau Associates

LIMS ID: 10-19830

Project: Striker

Matrix: Water

0025195.020

Data Release Authorized: 

Date Sampled: NA

Reported: 08/18/10

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT


Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	26.4	25.0	106%	

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: RI68MB
 LIMS ID: 10-19830
 Matrix: Water
 Data Release Authorized: 
 Reported: 08/18/10

QC Report No: RI68-Landau Associates
 Project: Striker
 0025195.020
 Date Sampled: NA
 Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	08/16/10	200.8	08/17/10	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
 RL-Reporting Limit



Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 5, 2010

Kathryn Hartley
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker 025195.030
ARI Job: RU86

Dear Kathryn,

Enclosed, please find the original Chain-of-Custody (COC) records, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted one soil sample and a trip blank in good condition on November 3, 2010 under sample delivery group (SDGs) RU86. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms.

The samples were analyzed for NWTPH-Dx and NWTPH-Gx, as requested on the COC.

The NWTPH-Dx LCS is out of control high. The associated sample is non-detect and no action was taken.

There were no other irregularities with the 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
www.arilabs.com



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
-

RUGLE

Date 11/3/10

Page 1 of 1

Chain-of-Custody Record

Project Name <u>DIESEL GENERATOR SOIL REMOVAL</u> Project No. <u>025195.020</u>					Testing Parameters										Turnaround Time <input type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input checked="" type="checkbox"/> <u>24 HR</u>				
Project Location/Event <u>KEET, WA / CONFIRMATION SAMPLING</u>					<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-G</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-Dx</div> </div>														
Sampler's Name <u>DYLAN FRAZER</u>																			
Project Contact <u>KATHRYN HARTLEY, JOE FLAHERTY (BEING)</u>																			
Send Results To <u>" "</u>																			
Sample I.D.	Date	Time	Matrix	No. of Containers													Observations/Comments		
<u>GEN-BOT-E (5.0-5.5)</u>	<u>11/3/10</u>	<u>1400</u>	<u>SOIL</u>	<u>4</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion		
<u>TRIP BLANKS</u>	<u>-/a</u>	<u>-/a</u>	<u>H₂O</u>	<u>2</u>	<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/> NWTPH-Dx - 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 type="checkbox"/> preserved w/sodium bisulfate		
																	<input type="checkbox"/> Freeze upon receipt		
																	<input type="checkbox"/> Dissolved metal water samples field filtered		
																	Other <u>NWTPH-G SAMPLED BY 5035</u>		
Special Shipment/Handling or Storage Requirements <u>STORE BELOW 4°C</u>										Method of Shipment <u>DROP OFF AT ARI</u>									
Relinquished by					Received by					Relinquished by					Received by				
Signature <u>Dylan Frazer</u>					Signature <u>A. Volgardsen</u>					Signature _____					Signature _____				
Printed Name <u>DYLAN FRAZER</u>					Printed Name <u>A. Volgardsen</u>					Printed Name _____					Printed Name _____				
Company <u>LAJ</u>					Company <u>ARI</u>					Company _____					Company _____				
Date <u>11/3/10</u> Time <u>1500</u>					Date <u>11/3/10</u> Time <u>1500</u>					Date _____ Time _____					Date _____ Time _____				



Cooler Receipt Form

ARI Client: Landatt Boeing
 COC No(s): _____ (NA)
 Assigned ARI Job No: RUBle

Project Name: AV Strike V Diesel Generator Soil Removal
 Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other: _____
 Tracking No: _____ (NA)

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)
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 9.1
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 909411619

Cooler Accepted by: AV Date: 11/3/10 Time: 1500

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? ... Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... NA YES (NO)
 Were all VOC vials free of air bubbles? NA YES (NO)
 Was sufficient amount of sample sent in each bottle? YES (NO)
 Date VOC Trip Blank was made at ARI NA 10/29/10
 Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: AV Date: 11/3/10 Time: 1530

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



Cooler Temperature Compliance Form

RUBLE

Cooler#: <u>1</u>		Temperature(°C): <u>9.1</u>	
Sample ID	Bottle Count	Bottle Type	
<i>Samples out of temp compliance.</i>			

Cooler#: _____		Temperature(°C): _____	
Sample ID	Bottle Count	Bottle Type	

Cooler#: _____		Temperature(°C): _____	
Sample ID	Bottle Count	Bottle Type	

Cooler#: _____		Temperature(°C): _____	
Sample ID	Bottle Count	Bottle Type	

Completed by: AV Date: 11/3/10 Time: 1535

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Soil


QC Report No: RU86-The Boeing Company

Project: Striker

Event: 025195.030

Date Sampled: 11/03/10

Date Received: 11/03/10

Data Release Authorized: 

Reported: 11/04/10

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-110410 10-28441	Method Blank	11/04/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.0 U --- 94.9% 96.2%
RU86A 10-28441	GEN-BOT-E(5.0-5.5)	11/04/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	31 GRO 97.4% 98.9%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water


QC Report No: RU86-The Boeing Company

Project: Striker

Event: 025195.030

Date Sampled: 11/03/10

Date Received: 11/03/10

Data Release Authorized: 

Reported: 11/04/10

ARI ID	Client ID	Analysis Date	DL	Range	Result
RU86B	Trip Blank	11/04/10	1.0	Gasoline	< 0.25 U
10-28442		PID3		HC ID	---
				Trifluorotoluene	96.8%
				Bromobenzene	96.3%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: RU86
Matrix: Soil

QC Report No: RU86-The Boeing Company
Project: Striker
Event: 025195.030

<u>Client ID</u>	<u>BFB</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
MB-110410	NA	94.9%	96.2%	0
LCS-110410	NA	93.2%	95.1%	0
LCSD-110410	NA	90.3%	91.4%	0
GEN-BOT-E(5.0-5.5)	NA	97.4%	98.9%	0

	LCS/MB LIMITS	QC LIMITS
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 10-28441 to 10-28441

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: RU86
Matrix: Water

QC Report No: RU86-The Boeing Company
Project: Striker
Event: 025195.030

<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
Trip Blank	96.8%	96.3%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 10-28442 to 10-28442

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Page 1 of 1

Sample ID: LCS-110410

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110410

LIMS ID: 10-28441

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/04/10

QC Report No: RU86-The Boeing Company

Project: Striker

Event: 025195.030

Date Sampled: NA

Date Received: NA

Date Analyzed LCS: 11/04/10 07:37

LCS: 11/04/10 08:01

Instrument/Analyst LCS: PID3/MH

LCS: PID3/MH

Purge Volume: 5.0 mL

Sample Amount LCS: 100 mg-dry-wt

LCS: 100 mg-dry-wt

Analyte	LCS	Spike	LCS	LCS	LCS	Spike	LCS	RPD
		Added-LCS	Recovery			Added-LCS	Recovery	
Gasoline Range Hydrocarbons	47.6	50.0	95.2%	51.6	50.0	103%	8.1%	

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.


TPHG Surrogate Recovery

	LCS	LCS
Trifluorotoluene	93.2%	90.3%
Bromobenzene	95.1%	91.4%

**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: RU86-The Boeing Company
Project: Striker
025195.030

Data Release Authorized: 
Reported: 11/05/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-110310	Method Blank	11/03/10	11/04/10	1.00	Diesel	5.0	< 5.0 U
10-28441	HC ID: ---		FID9	1.0	Motor Oil o-Terphenyl	10	< 10 U 110%
RU86A	GEN-BOT-E(5.0-5.5)	11/03/10	11/04/10	1.00	Diesel	6.8	< 6.8 U
10-28441	HC ID: ---		FID9	1.0	Motor Oil o-Terphenyl	14	< 14 U 74.1%

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: RU86-The Boeing Company
Project: Striker
025195.030

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-110310	110%	0
LCS-110310	117%	0
GEN-BOT-E(5.0-5.5)	74.1%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(59-134)	(43-137)

Prep Method: SW3546
Log Number Range: 10-28441 to 10-28441

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: LCS-110310

Page 1 of 1

LAB CONTROL

Lab Sample ID: LCS-110310

QC Report No: RU86-The Boeing Company

LIMS ID: 10-28441

Project: Striker

Matrix: Soil

025195.030

Data Release Authorized: *RB*

Date Sampled: 11/03/10

Reported: 11/05/10

Date Received: 11/03/10

Date Extracted: 11/03/10

Sample Amount: 10.0 g

Date Analyzed: 11/04/10 15:54

Final Extract Volume: 1.0 mL

Instrument/Analyst: FID/MS

Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	174	150	116%

TPHD Surrogate Recovery

o-Terphenyl 117%

Results reported in mg/kg

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil
Date Received: 11/03/10

ARI Job: RU86
Project: Striker
025195.030

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-28441-110310MB1	Method Blank	10.0 g	1.00 mL	-	11/03/10
10-28441-110310LCS1	Lab Control	10.0 g	1.00 mL	-	11/03/10
10-28441-RU86A	GEN-BOT-E(5.0-5.5)	7.38 g	1.00 mL	D	11/03/10



Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 8, 2010

Kathryn Hartley
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RECEIVED

NOV 12 2010

LANDAU ASSOCIATES, INC.

RE: Project: Striker 025195.030
ARI Job: RV07

Dear Kathryn,

Enclosed, please find the original Chain-of-Custody (COC) records, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted three soil samples and a trip blank in good condition on November 4, 2010 under sample delivery group (SDGs) RV07. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms.

The samples were analyzed for NWTPH-Dx and NWTPH-Gx, as requested on the COC.

The NWTPH-Dx LCS and LCSD are outside of the current control limits high. No further action was taken.

There were no other irregularities with the 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
www.arilabs.com

Page 1 of 12



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____

RN07

Date 11/4/10

Page 1 of 1

Chain-of-Custody Record

Project Name <u>DIESEL GENERATOR SOIL REMOVAL</u> Project No. <u>025195, 030</u>						Testing Parameters										Turnaround Time			
Project Location/Event <u>KENT, WA / CONFIRMATION SAMPLING</u>						<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-G</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NWTPH-Dx</div> </div>										<input type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input checked="" type="checkbox"/> <u>24 HR</u>			
Sampler's Name <u>DYLAN FRAZER</u>																			
Project Contact <u>KATHRIN HARTLEY, JOE FLAHERTY</u>																			
Send Results To _____																			
Sample I.D.	Date	Time	Matrix	No. of Containers												Observations/Comments			
<u>GEN-SW-N1 (9.0-9.5)</u>	<u>11/4/10</u>	<u>1210</u>	<u>SOIL</u>	<u>4</u>	<u>X</u>	<u>X</u>											<u>X</u> Allow water samples to settle, collect aliquot from clear portion		
<u>GEN-BOT-C (15.0-15.5)</u>	<u>11/4/10</u>	<u>1315</u>	<u>SOIL</u>	<u>4</u>	<u>X</u>	<u>X</u>											<u>X</u> NWTPH-Dx - run acid wash/silica gel cleanup		
<u>GEN-SW-NE (10.0-10.5)</u>	<u>11/4/10</u>	<u>1430</u>	<u>SOIL</u>	<u>4</u>	<u>X</u>	<u>X</u>													
<u>TRIP BLANKS</u>	<u>11/3/10</u>	<u>n/c</u>	<u>H₂O</u>	<u>2</u>	<u>X</u>												<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 type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt <input type="checkbox"/> Dissolved metal water samples field filtered Other <u>NWTPH-G COLLECTED BY JDB35</u>		
Special Shipment/Handling or Storage Requirements <u>STORE BELOW 4°C</u>										Method of Shipment <u>DROP OFF AT ARI</u>									
Relinquished by <u>Dylan Frazer</u> Signature <u>DYLAN FRAZER</u> Printed Name <u>LAI</u> Company Date <u>11/4/10</u> Time <u>1545</u>					Received by <u>A. Volgardsen</u> Signature <u>ARI</u> Printed Name Company Date <u>11/4/10</u> Time <u>1545</u>					Relinquished by Signature Printed Name Company Date _____ Time _____					Received by Signature Printed Name Company Date _____ Time _____				

RN07:00002



Cooler Receipt Form

ARI Client: Boeing
COC No(s): _____ (NA)
Assigned ARI Job No: RVO7

Project Name: Striker
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Tracking No: _____ (NA)

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
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 5.7
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619

Cooler Accepted by: AV Date: 11/4/10 Time: 1545
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? ... (Bubble Wrap) (Wet Ice) (Gel Packs) (Baggies) Foam Block Paper Other: _____
Was sufficient ice used (if appropriate)? NA (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 the number of containers listed on COC match with the number of containers received? (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 sheet, excluding VOCs)... (NA) YES NO
Were all VOC vials free of air bubbles? NA (YES) NO
Was sufficient amount of sample sent in each bottle? (YES) NO
Date VOC Trip Blank was made at ARI..... NA 11/3/10
Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: AV Date: 11/4/10 Time: 1644
**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____


			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

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: RV07-The Boeing Company
Project: Striker
025195.030

Data Release Authorized: 
Reported: 11/08/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-110510 10-28508	Method Blank HC ID: ---	11/05/10	11/05/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 110%
RV07A 10-28508	GEN-SW-N1(9.0-9.5) HC ID: ---	11/05/10	11/05/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	6.7 13	< 6.7 U < 13 U 100%
RV07B 10-28509	GEN-BOT-C(15.0-15.5) HC ID: ---	11/05/10	11/05/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	6.8 14	< 6.8 U < 14 U 107%
RV07C 10-28510	GEN-SW-NE(10.0-10.5) HC ID: DRO	11/05/10	11/05/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	6.9 14	50 < 14 U 105%

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: RV07-The Boeing Company
Project: Striker
025195.030

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-110510	110%	0
LCS-110510	118%	0
LCSD-110510	116%	0
GEN-SW-N1 (9.0-9.5)	100%	0
GEN-BOT-C (15.0-15.	107%	0
GEN-SW-NE (10.0-10.	105%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(OTER) = o-Terphenyl	(59-134)	(43-137)

Prep Method: SW3546
Log Number Range: 10-28508 to 10-28510

ORGANICS ANALYSIS DATA SHEET
 NWTPHD by GC/FID-Silica and Acid Cleaned
 Page 1 of 1

Sample ID: LCS-110510
 LCS/LCSD

Lab Sample ID: LCS-110510
 LIMS ID: 10-28508
 Matrix: Soil
 Data Release Authorized: *AB*
 Reported: 11/08/10

QC Report No: RV07-The Boeing Company
 Project: Striker
 025195.030
 Date Sampled: 11/04/10
 Date Received: 11/04/10

Date Extracted LCS/LCSD: 11/05/10

Sample Amount LCS: 10.0 g
 LCSD: 10.0 g

Date Analyzed LCS: 11/05/10 18:39
 LCSD: 11/05/10 19:00

Final Extract Volume LCS: 1.0 mL
 LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MH
 LCSD: FID/MH

Dilution Factor LCS: 1.0
 LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	172	150	115%	171	150	114%	0.6%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	118%	116%

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

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil
Date Received: 11/04/10

ARI Job: RV07
Project: Striker
025195.030

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-28508-110510MB1	Method Blank	10.0 g	1.00 mL	-	11/05/10
10-28508-110510LCS1	Lab Control	10.0 g	1.00 mL	-	11/05/10
10-28508-110510LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	11/05/10
10-28508-RV07A	GEN-SW-N1(9.0-9.5)	7.51 g	1.00 mL	D	11/05/10
10-28509-RV07B	GEN-BOT-C(15.0-15.57)	32 g	1.00 mL	D	11/05/10
10-28510-RV07C	GEN-SW-NE(10.0-10.57)	28 g	1.00 mL	D	11/05/10


Basis: D=Dry Weight W=As Received
Diesel Extraction Report

RV07: 00007

ORGANICS ANALYSIS DATA SHEET
 TPHG by Method NWTPHG
 Matrix: Soil



QC Report No: RV07-The Boeing Company
 Project: Striker
 Event: 025195.030
 Date Sampled: 11/04/10
 Date Received: 11/04/10

Data Release Authorized: 
 Reported: 11/08/10

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-110510 10-28508	Method Blank	11/05/10 PID3	Dry	Gasoline	< 2.5 U
				HC ID	---
				Trifluorotoluene	90.8%
				Bromobenzene	93.7%
RV07A 10-28508	GEN-SW-N1(9.0-9.5)	11/05/10 PID3	Dry	Gasoline	< 7.1 U
				HC ID	---
				Trifluorotoluene	93.6%
				Bromobenzene	95.2%
RV07B 10-28509	GEN-BOT-C(15.0-15.5)	11/05/10 PID3	Dry	Gasoline	< 9.2 U
				HC ID	---
				Trifluorotoluene	95.1%
				Bromobenzene	98.2%
RV07C 10-28510	GEN-SW-NE(10.0-10.5)	11/05/10 PID3	Dry	Gasoline	34
				HC ID	GRO
				Trifluorotoluene	93.4%
				Bromobenzene	95.7%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: RV07
Matrix: Soil

QC Report No: RV07-The Boeing Company
Project: Striker
Event: 025195.030

<u>Client ID</u>	<u>BFB</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
MB-110510	NA	90.8%	93.7%	0
LCS-110510	NA	96.1%	97.1%	0
LCSD-110510	NA	98.6%	102%	0
GEN-SW-N1(9.0-9.5)	NA	93.6%	95.2%	0
GEN-BOT-C(15.0-15.5)	NA	95.1%	98.2%	0
GEN-SW-NE(10.0-10.5)	NA	93.4%	95.7%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 10-28508 to 10-28510

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: RV07
Matrix: Water

QC Report No: RV07-The Boeing Company
Project: Striker
Event: 025195.030

<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
Trip Blanks	97.1%	97.0%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 10-28511 to 10-28511

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Page 1 of 1



Sample ID: LCS-110510

LAB CONTROL SAMPLE

Lab Sample ID: LCS-110510

LIMS ID: 10-28508

Matrix: Soil

Data Release Authorized: *AB*

Reported: 11/08/10

QC Report No: RV07-The Boeing Company

Project: Striker

Event: 025195.030

Date Sampled: NA

Date Received: NA

Date Analyzed LCS: 11/05/10 11:02

Purge Volume: 5.0 mL

LCSD: 11/05/10 11:26

Instrument/Analyst LCS: PID3/MH

Sample Amount LCS: 100 mg-dry-wt

LCSD: PID3/MH

LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	45.6	50.0	91.2%	45.4	50.0	90.8%	0.4%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	96.1%	98.6%
Bromobenzene	97.1%	102%



ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water

QC Report No: RV07-The Boeing Company

Project: Striker

Event: 025195.030

Date Sampled: 11/04/10

Date Received: 11/04/10

Data Release Authorized: *B*

Reported: 11/08/10

ARI ID	Client ID	Analysis Date	DL	Range	Result
RV07D	Trip Blanks	11/05/10	1.0	Gasoline	< 0.25 U
10-28511		PID3		HC ID	---
				Trifluorotoluene	97.1%
				Bromobenzene	97.0%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.



Analytical Resources, Incorporated
Analytical Chemists and Consultants

RECEIVED

NOV 12 2010

LANDAU ASSOCIATES, INC.

November 8, 2010

Kathryn Hartley
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker 025195.030
ARI Job: RV18

Dear Kathryn,

Enclosed, please find the original Chain-of-Custody (COC) records, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted four soil samples and a trip blank in good condition on November 5, 2010 under sample delivery group (SDGs) RV18. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms.

The samples were analyzed for NWTPH-Dx and NWTPH-Gx, as requested on the COC.

There were no irregularities with the 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
www.arilabs.com

Page 1 of 12

RUIB

- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____



Date 11/5/10
 Page 1 of 1

Chain-of-Custody Record

Project Name Diesel Generator Soil Removal Project No. 025195, 030
 Project Location/Event KENT, WA / CONFIRMATION SAMPLING
 Sampler's Name DYLAN RAZER
 Project Contact KATHRYN HARTLEY / JOE PLATEAU
 Send Results To " / "

Testing Parameters

Turnaround Time
 Standard
 Accelerated
 24 HR

Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-G	NWTPH-Dx	Testing Parameters	Observations/Comments
GEN-BOT-W (7.5-8.0)	11/5/10	1000	SOIL	4	X	X		<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion
GEN-SW-W (10.0-10.5)	11/5/10	1210	SOIL	4	X	X		
GEN-SW-S1 (10.0-10.5)	11/5/10	1130	SOIL	4	X	X		<input checked="" type="checkbox"/> NWTPH-Dx - run acid wash/silica gel cleanup
GEN-BOT-SW (9.5-10.0)	11/5/10	1210	SOIL	4	X	X		
TAP BLANKS	11/3/10	7/6	H ₂ O	2	X			<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 type="checkbox"/> preserved w/sodium bisulfate
								<input type="checkbox"/> Freeze upon receipt
								<input type="checkbox"/> Dissolved metal water samples field filtered
								Other <u>NWTPH-G collected in 5035A</u>

Special Shipment/Handling or Storage Requirements STORE BELOW 4°C Method of Shipment DROP OFF - FT AB-1

Relinquished by
 Signature [Signature]
 Printed Name DYLAN RAZER
 Company LANDAU
 Date 11/5/10 Time 1300

Received by
 Signature [Signature]
 Printed Name A. Volgardsen
 Company ARI
 Date 11/5/10 Time 1300

Relinquished by
 Signature _____
 Printed Name _____
 Company _____
 Date _____ Time _____

Received by
 Signature _____
 Printed Name _____
 Company _____
 Date _____ Time _____

RUIB: 00002



Cooler Receipt Form

ARI Client: Beeng
 COC No(s): _____ (NA)
 Assigned ARI Job No: RV18

Project Name: Strker
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ (NA)

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
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 5.9
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619

Cooler Accepted by: AV Date: 11/5/10 Time: 1300
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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... NA YES NO
 Were all VOC vials free of air bubbles? NA YES NO
 Was sufficient amount of sample sent in each bottle? YES NO
 Date VOC Trip Blank was made at ARI..... NA 11/3/10
 Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____
 Samples Logged by: MM Date: 11/5/10 Time: 1343

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Soil

Data Release Authorized: *[Signature]*
 Reported: 11/08/10



QC Report No: RV18-Landau Associates
 Project: Diesel Generator Removal
 Event: 025195.030
 Date Sampled: 11/05/10
 Date Received: 11/05/10

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-110610 10-28598	Method Blank	11/06/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.0 U --- 93.9% 99.6%
RV18A 10-28598	GEN-BOT-W(7.5-8.0)	11/06/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 12 U --- 96.8% 98.0%
RV18B 10-28599	GEN-SW-W(10.0-10.5)	11/06/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 7.7 U --- 99.0% 97.7%
RV18C 10-28600	GEN-SW-S1(10.0-10.5)	11/06/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 7.8 U --- 99.1% 100%
RV18D 10-28601	GEN-BOT-SW(9.5-10.0)	11/06/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 8.2 U --- 99.1% 101%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: RV18
Matrix: Water

QC Report No: RV18-Landau Associates
Project: Diesel Generator Removal
Event: 025195.030

<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
TRIP BLANKS	102%	103%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 10-28602 to 10-28602

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water

Data Release Authorized: *[Signature]*
Reported: 11/08/10

QC Report No: RV18-Landau Associates
Project: Diesel Generator Removal
Event: 025195.030
Date Sampled: 11/05/10
Date Received: 11/05/10



ARI ID	Client ID	Analysis Date	DL	Range	Result
RV18E 10-28602	TRIP BLANKS	11/06/10 PID3	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 102% 103%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: RV18
Matrix: Soil

QC Report No: RV18-Landau Associates
Project: Diesel Generator Removal
Event: 025195.030

<u>Client ID</u>	<u>BFB</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT</u>	<u>OUT</u>
MB-110610	NA	93.9%	99.6%	0	
LCS-110610	NA	96.7%	99.0%	0	
LCSD-110610	NA	95.7%	102%	0	
GEN-BOT-W(7.5-8.0)	NA	96.8%	98.0%	0	
GEN-SW-W(10.0-10.5)	NA	99.0%	97.7%	0	
GEN-SW-S1(10.0-10.5)	NA	99.1%	100%	0	
GEN-BOT-SW(9.5-10.0)	NA	99.1%	101%	0	

	LCS/MB LIMITS	QC LIMITS
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 10-28598 to 10-28601

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-110610
LAB CONTROL SAMPLE

Lab Sample ID: LCS-110610
LIMS ID: 10-28598
Matrix: Soil
Data Release Authorized: *AS*
Reported: 11/08/10

QC Report No: RV18-Landau Associates
Project: Diesel Generator Removal
Event: 025195.030
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 11/06/10 16:44
LCS: 11/06/10 17:08
Instrument/Analyst LCS: PID3/MH
LCS: PID3/MH

Purge Volume: 5.0 mL
Sample Amount LCS: 100 mg-dry-wt
LCS: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCS	LCS Recovery	RPD
Gasoline Range Hydrocarbons	46.0	50.0	92.0%	46.8	50.0	93.6%	1.7%	

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCS
Trifluorotoluene	96.7%	95.7%
Bromobenzene	99.0%	102%



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: RV18-Landau Associates
 Project: Diesel Generator Removal
 025195.030

Data Release Authorized: *AB*
 Reported: 11/08/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-110610 10-28598	Method Blank HC ID: ---	11/06/10	11/06/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 103%
RV18A 10-28598	GEN-BOT-W(7.5-8.0) HC ID: ---	11/06/10	11/06/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	7.1 14	< 7.1 U < 14 U 92.0%
RV18B 10-28599	GEN-SW-W(10.0-10.5) HC ID: ---	11/06/10	11/06/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	6.8 14	< 6.8 U < 14 U 89.6%
RV18C 10-28600	GEN-SW-S1(10.0-10.5) HC ID: ---	11/06/10	11/06/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	6.9 14	< 6.9 U < 14 U 94.1%
RV18D 10-28601	GEN-BOT-SW(9.5-10.0) HC ID: ---	11/06/10	11/06/10 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	6.9 14	< 6.9 U < 14 U 96.6%

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: RV18-Landau Associates
Project: Diesel Generator Removal
025195.030

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-110610	103%	0
LCS-110610	111%	0
LCSD-110610	106%	0
GEN-BOT-W(7.5-8.0)	92.0%	0
GEN-SW-W(10.0-10.5)	89.6%	0
GEN-SW-S1(10.0-10.	94.1%	0
GEN-BOT-SW(9.5-10.	96.6%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(59-134)

(43-137)

Prep Method: SW3546
Log Number Range: 10-28598 to 10-28601

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil
Date Received: 11/05/10

ARI Job: RV18
Project: Diesel Generator Removal
025195.030

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-28598-110610MB1	Method Blank	10.0 g	1.00 mL	-	11/06/10
10-28598-110610LCS1	Lab Control	10.0 g	1.00 mL	-	11/06/10
10-28598-110610LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	11/06/10
10-28598-RV18A	GEN-BOT-W(7.5-8.0)	7.08 g	1.00 mL	D	11/06/10
10-28599-RV18B	GEN-SW-W(10.0-10.5)	7.31 g	1.00 mL	D	11/06/10
10-28600-RV18C	GEN-SW-S1(10.0-10.5)	7.28 g	1.00 mL	D	11/06/10
10-28601-RV18D	GEN-BOT-SW(9.5-10.0)	7.27 g	1.00 mL	D	11/06/10

Basis: D=Dry Weight W=As Received
Diesel Extraction Report

RV18:00011



ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Sample ID: LCS-110610

LCS/LCSD

Lab Sample ID: LCS-110610

LIMS ID: 10-28598

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 11/08/10

QC Report No: RV18-Landau Associates

Project: Diesel Generator Removal

025195.030

Date Sampled: 11/05/10

Date Received: 11/05/10

Date Extracted LCS/LCSD: 11/06/10

Sample Amount LCS: 10.0 g

LCSD: 10.0 g

Date Analyzed LCS: 11/06/10 18:30

Final Extract Volume LCS: 1.0 mL

LCSD: 11/06/10 18:51

LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MH

Dilution Factor LCS: 1.0

LCSD: FID/MH

LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	158	150	105%	152	150	101%	3.9%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	111%	106%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.



Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 9, 2010

Kathryn Hartley
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker 025195.030
ARI Job: RV42

Dear Kathryn,

Enclosed, please find the original Chain-of-Custody (COC) records, sample receipt documentation, and final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted one soil sample and a trip blank in good condition on November 8, 2010 under sample delivery group (SDGs) RV42. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms.

The samples were analyzed for NWTPH-Dx and NWTPH-Gx, as requested on the COC.

There were no irregularities with the 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
www.arilabs.com



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____

RV42

Date 11/8/10

Page 1 of 1

Chain-of-Custody Record

Project Name DIESEL GENERATOR SOIL REMOVAL Project No. 025195.030

Project Location/Event KENT, WA / CONFIRMATION SAMPLING

Sampler's Name DYLAN FRAZER

Project Contact KATHARINE HARLEY / JOE PLATSKY

Send Results To " / "

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters												Observations/Comments	
					NWTPH-G	NWTPH-Dx												
GEN-SW-S (10.0-10.5)	11/8/10	1200	SOIL	4	X	X												X Allow water samples to settle, collect aliquot from clear portion
TOP BLANKS		1/2	H ₂ O	2	X													X NWTPH-Dx - run acid wash/silica gel cleanup

Turnaround Time
 Standard
 Accelerated
 24 HR

Special Shipment/Handling or Storage Requirements: STORE BELOW 40C Method of Shipment: DROP OFF AT AQ

Relinquished by Signature: <u>[Signature]</u> Printed Name: <u>DYLAN FRAZER</u> Company: <u>LANDAU</u> Date: <u>11/8/10</u> Time: <u>1305</u>	Received by Signature: <u>[Signature]</u> Printed Name: <u>A. Volgardsen</u> Company: <u>AQ</u> Date: <u>11/8/10</u> Time: <u>1305</u>	Relinquished by Signature: _____ Printed Name: _____ Company: _____ Date: _____ Time: _____	Received by Signature: _____ Printed Name: _____ Company: _____ Date: _____ Time: _____
--	---	--	--



Cooler Receipt Form

ARI Client: Boeing
 COC No(s): _____ (NA)
 Assigned ARI Job No: RV42

Project Name: Striker
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ NA

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 4.9
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 909211019

Cooler Accepted by: AV Date: 11/8/10 Time: 1305

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... (NA) YES NO
 Were all VOC vials free of air bubbles? NA YES NO
 Was sufficient amount of sample sent in each bottle? YES NO
 Date VOC Trip Blank was made at ARI..... NA 10/1/10
 Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: AV Date: 11/8/10 Time: 1320

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

TB = 1pb


By: AV Date: 11/8/10

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Soil

Data Release Authorized: 
Reported: 11/10/10

QC Report No: RV42-The Boeing Company

Project: Striker

Event: 025195.030

Date Sampled: 11/08/10

Date Received: 11/08/10

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-110910 10-28699	Method Blank	11/09/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.0 U --- 95.5% 99.9%
RV42A 10-28699	GEN-SW-S(10.0-10.5)	11/09/10 PID3	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	29 GRO 101% 103%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water


QC Report No: RV42-The Boeing Company

Project: Striker

Event: 025195.030

Date Sampled: 11/08/10

Date Received: 11/08/10

Data Release Authorized: 

Reported: 11/09/10

ARI ID	Client ID	Analysis Date	DL	Range	Result
RV42B	Trip Blanks	11/09/10	1.0	Gasoline	< 0.25 U
10-28700		PID3		HC ID	---
				Trifluorotoluene	101%
				Bromobenzene	101%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: RV42
Matrix: Soil

QC Report No: RV42-The Boeing Company
Project: Striker
Event: 025195.030

<u>Client ID</u>	<u>BFB</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
MB-110910	NA	95.5%	99.9%	0
LCS-110910	NA	98.1%	99.1%	0
LCSD-110910	NA	99.0%	101%	0
GEN-SW-S(10.0-10.5)	NA	101%	103%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 10-28699 to 10-28699

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: RV42
Matrix: Water

QC Report No: RV42-The Boeing Company
Project: Striker
Event: 025195.030


<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT</u>	<u>OUT</u>
Trip Blanks	101%	101%		0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 10-28700 to 10-28700

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
 Page 1 of 1

Sample ID: LCS-110910
LAB CONTROL SAMPLE

Lab Sample ID: LCS-110910
 LIMS ID: 10-28699
 Matrix: Soil
 Data Release Authorized: 
 Reported: 11/09/10

QC Report No: RV42-The Boeing Company
 Project: Striker
 Event: 025195.030
 Date Sampled: NA
 Date Received: NA

Date Analyzed LCS: 11/09/10 07:56
 LCSD: 11/09/10 08:21
 Instrument/Analyst LCS: PID3/MH
 LCSD: PID3/MH

Purge Volume: 5.0 mL
 Sample Amount LCS: 100 mg-dry-wt
 LCSD: 100 mg-dry-wt

Analyte	LCS	Spike	LCS	LCSD	Spike	LCS	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
Gasoline Range Hydrocarbons	48.2	50.0	96.4%	50.1	50.0	100%	3.9%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	98.1%	99.0%
Bromobenzene	99.1%	101%

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: RV42-The Boeing Company

Project: Striker

025195.030

Data Release Authorized: *B*
Reported: 11/10/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-110810	Method Blank	11/08/10	11/09/10	1.00	Diesel	5.0	< 5.0 U
10-28699	HC ID: ---		FID3B	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		106%
RV42A	GEN-SW-S(10.0-10.5)	11/08/10	11/09/10	1.00	Diesel	6.9	< 6.9 U
10-28699	HC ID: ---		FID3B	1.0	Motor Oil	14	< 14 U
					o-Terphenyl		81.6%

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: RV42-The Boeing Company
Project: Striker
025195.030

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-110810	106%	0
LCS-110810	114%	0
GEN-SW-S(10.0-10.5	81.6%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(59-134)	(43-137)

Prep Method: SW3546
Log Number Range: 10-28699 to 10-28699

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Sample ID: LCS-110810

Page 1 of 1

LAB CONTROL

Lab Sample ID: LCS-110810

QC Report No: RV42-The Boeing Company

LIMS ID: 10-28699

Project: Striker

Matrix: Soil

025195.030

Data Release Authorized: *AB*

Date Sampled: 11/08/10

Reported: 11/09/10

Date Received: 11/08/10

Date Extracted: 11/08/10

Sample Amount: 10.0 g

Date Analyzed: 11/09/10 09:41

Final Extract Volume: 1.0 mL

Instrument/Analyst: FID/MS

Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	129	150	86.0%

TPHD Surrogate Recovery

o-Terphenyl	114%
-------------	------

Results reported in mg/kg

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil
Date Received: 11/08/10

ARI Job: RV42
Project: Striker
025195.030

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-28699-110810MB1	Method Blank	10.0 g	1.00 mL	-	11/08/10
10-28699-110810LCS1	Lab Control	10.0 g	1.00 mL	-	11/08/10
10-28699-RV42A	GEN-SW-S(10.0-10.5)	7.26 g	1.00 mL	D	11/08/10



Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 11, 2011

Kathryn Hartley
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker, 025195.003.032
ARI Job: SG42

Dear Kathryn,

Enclosed, please find the original and revised Chain-of-Custody (COC) records, sample receipt documentation, email documentation, and the final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted nine water samples, ten soil samples, and a trip blank on January 26, 2011 under sample delivery group (SDG) SG42. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms. Select samples were placed on hold pending further instructions. Per Landau Associates, samples were allowed to settle and sample volume was collected from the clear portion.

The samples were analyzed for Total and Dissolved Arsenic, VOCs, NWTPH-Gx, and NWTPH-Dx, as requested.

The VOC continuing calibration (CCAL) analyzed on January 28, 2011 was outside the 20% control limit high for Acrolein, 2-Butanone, and 2-Hexanone. All results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

The VOC LCS and LCSD percent recoveries Methyl Iodide of were outside the control limits high for **LCS-013011**. The LCSD percent recovery of Methyl Iodide and the LCS/LCSD percent recoveries of 2-Hexanone and Acrolein were outside the control limits high for **LCS-012811**. No corrective action was taken.

Several VOC matrix spike and matrix spike duplicate percent recoveries were outside the advisory control limits for sample **KSC-DP-21-GW-110126**. No corrective action is required for matrix QC.

There were no other analytical complications noted.

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


Cheronne Oreiro
Project Manager

-For-
Kelly Bottem
Client Services Manager
(206) 695-6211
kellyb@arilabs.com
www.arilabs.com

- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____



Date 1/26/2011
Page 1 of 2

Chain-of-Custody Record

Project Name Striker Project No. 025195.003 032

Project Location/Event Kent, WA / Phase II Supplemental

Sampler's Name PRR / SED

Project Contact Tim Syverson, Kathryn Hartley, Joe Flaherty

Send Results To " " " (Boeing)
Anne Halvorsen

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters										Observations/Comments			
					Arsenic	VOCs	TPH-Dx	TPH-G										
KSC-DP-31-GW-110126	1/26/11	0920	H ₂ O	1	X													X Allow water samples to settle, collect aliquot from clear portion
KSC-DP-32-GW-110126		0955	H ₂ O	1	X													X NWTPH-Dx - run acid wash/silica gel cleanup
KSC-DP-33-GW-110126		1020	H ₂ O	1	X													
KSC-DP-21-GW-110126		1120	H ₂ O	3		X												
KSC-DP-31-S-5-6-110126		0850	Soil	1	X													___ run samples standardized to _____ product
KSC-DP-32-S-3.5-4.5-110126		0910	Soil	1	X													___ Analyze for EPH if no specific product identified
KSC-DP-33-S-7.5-7.5-110126		0935	Soil	1	X													VOC/BTEX/VPH (soil):
KSC-DP-21-S-0-0.5-110126		1040	Soil	3		X												___ non-preserved
KSC-DP-21-S-3-3.5-110126		1045	Soil	3		X												___ preserved w/methanol
KSC-DP-21-S-2.5-3-110126		1050	Soil	3														___ preserved w/sodium bisulfate
KSC-DP-25b-S-4.5-5-110126		1310	Soil	4			X	X										___ Freeze upon receipt
KSC-DP-25b-S-7-8-110126		1315	Soil	4			X	X										✓ Dissolved metal water samples field filtered
KSC-DP-24-S-6-7-110126		1400	Soil	4			X	X										Other Archive Samples not marked for analysis
KSC-DP-24-S-8-9-110126		1405	Soil	3														
KSC-DP-22-GW-110126		1515	H ₂ O	5	X		X	X										
KSC-DP-23-GW-110126		1540	H ₂ O	5	X		X	X										
KSC-DP-24-GW-110126		1430	H ₂ O	5	X		X	X										
KSC-DP-25b-GW-110126		1340	H ₂ O	5	X		X	X										

Special Shipment/Handling or Storage Requirements on ice Method of Shipment deliver to ARI


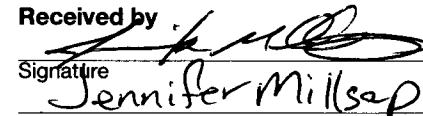
Relinquished by Signature <u>Paul Rymaker</u> Printed Name <u>CAI</u> Company Date <u>1/26/11</u> Time <u>1650</u>	Received by Signature <u>Jennifer Millsap</u> Printed Name <u>ARI</u> Company Date <u>1/26/11</u> Time <u>1650</u>	Relinquished by Signature Printed Name Company Date _____ Time _____	Received by Signature Printed Name Company Date _____ Time _____
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- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____

Date 1/26/2011
Page 2 of 2

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>025195.030032</u>					Testing Parameters										Turnaround Time <input type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____				
Project Location/Event <u>Kent, WA / Phase II Supplemental</u>					VOCs														
Sampler's Name <u>PRR/SEO</u>																			
Project Contact <u>Tim Syverson, Kathryn Hartley, Joe Flaherty</u>																			
Send Results To <u>"", "", "", Anne Halvorsen</u>																			
Sample I.D.	Date	Time	Matrix	No. of Containers											Observations/Comments				
<u>TB</u>	<u>1/20/11</u>			<u>2</u>											<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion <input checked="" type="checkbox"/> 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 _____				
<u>BSC-DR-25-GW-110126</u>	<u>1/26/11</u>	<u>1300</u>	<u>H₂O</u>	<u>5</u>															
Special Shipment/Handling or Storage Requirements <u>On ice</u>					Method of Shipment <u>Refrigerated</u>														
Relinquished by					Received by					Relinquished by					Received by				
Signature 					Signature 					Signature _____					Signature _____				
Printed Name <u>Paul Ryznar</u>					Printed Name <u>Jennifer Millsap</u>					Printed Name _____					Printed Name _____				
Company <u>CAE</u>					Company <u>ART</u>					Company _____					Company _____				
Date <u>1/26/11</u> Time <u>1050</u>					Date <u>1/26/11</u> Time <u>1650</u>					Date _____ Time _____					Date _____ Time _____				



Cooler Receipt Form

ARI Client: Landau

Project Name: Striker

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: SG42

Tracking No: _____ NA

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 6.0 5.0

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619

Cooler Accepted by: JM Date: 1/26/11 Time: 1650

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? JM YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI..... NA 1/26/11

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 1/27/11 Time: 1000

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
<u>KSC-DP-25B-GW-110126</u>	<u>KSC-DP-25b-GW-110126</u>		
<p>Additional Notes, Discrepancies, & Resolutions: <u>KSC-DP-23-GW-110126 - sm in 1 of 2.</u> <u>TB = sm in 2 of 2</u> <u>2 - SOB1 preserved vials + 1 - HCl preserved vial received for samples KSC-DP-21-S-0-C.S-110126</u> <u>KSC-DP-21-S-3-3-5-110126 + KSC-DP-21-S-2.5-3-110126.</u> <u>Cannot use HCl vial for analysis, should be preserved with MeOH.</u></p>			
By: <u>JM</u> Date: <u>1/27/11</u>			
<p>Small Air Bubbles ~2mm</p>	<p>Peabubbles 2-4 mm</p>	<p>LARGE Air Bubbles > 4 mm</p>	<p>Small → "sm"</p> <p>Peabubbles → "pb"</p> <p>Large → "lg"</p> <p>Headspace → "hs"</p>

PRESERVATION VERIFICATION 01/27/11

Page 1 of 1



ARI Job No: SG42

Inquiry Number: NONE
 Analysis Requested: 01/27/11
 Contact: Syverson, Tim
 Client: Landau Associates, Inc.
 Logged by: JM
 Sample Set Used: Yes-481
 Validatable Package: No
 Deliverables:

PC: Kelly
 VTSR: 01/26/11

Project #: 025195.003.032
 Project: Striker
 Sample Site:
 SDG No:
 Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
11-1693 SG42A	KSC-DP-31-GW-110126						DIS									Y						
11-1694 SG42B	KSC-DP-32-GW-110126						DIS									Y						
11-1695 SG42C	KSC-DP-33-GW-110126						DIS									Y						
11-1697 SG42E	KSC-DP-22-GW-110126						DIS									Y						
11-1698 SG42F	KSC-DP-23-GW-110126						DIS									Y						
11-1699 SG42G	KSC-DP-24-GW-110126						DIS									Y						
11-1700 SG42H	KSC-DP-25b-GW-110126						DIS									Y						

Checked By JM Date 1/27/11

Subject: Striker - revised COC sg42
From: "Kathryn Hartley" <khartley@landauinc.com>
Date: Fri, 28 Jan 2011 11:13:33 -0800
To: Kelly Bottem <kellyb@arilabs.com>
CC: "Tim Syverson" <tsyverson@landauinc.com>, Paul Raymaker <praymaker@landauinc.com>, Susan Dickerson <SDickerson@landauinc.com>

Kelly,

Per the attached revised COC, please archive sample KSC-DP-21-S-0-0.5-110126 and please analyze the trip blank for TPH-G in addition to VOCs.

Please confirm that you received this request and let me know if you have any questions.

Thanks,
Kathryn

Kathryn F. Hartley " Senior Project Scientist
Landau Associates, Inc.
130 2nd Ave. S, Edmonds, WA 98020
425.778.0907 " direct 425.329.0268 " cell 425.248.7520
khartley@landauinc.com " www.landauinc.com

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Content-Description: Striker_COC_sg42_rev012811.pdf
Striker_COC_sg42_rev012811.pdf **Content-Type:** application/pdf
Content-Encoding: base64

- Seattle/Edmonds (425) 778-0907
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- Portland (503) 542-1080
- _____

Added by KFM 1/26/11



Date 1/26/2011
Page 1 of 2

Chain-of-Custody Record

Project Name <u>Striker</u>		Project No. <u>025195.003.032</u>		Testing Parameters				Turnaround Time	
Project Location/Event <u>Kent, WA / Phase II Supplemental</u>		Sampler's Name <u>PRR / SED</u>		Arsenic VOCs TPH-Dx TPH-G				<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____	
Project Contact <u>Tim Syverson, Kathryn Hartley, Joe Flaherty</u>								Send Results To _____	
Send Results To _____		* <u>Anna Halvorsen</u>							
Sample I.D.	Date	Time	Matrix	No. of Containers					Observations/Comments
KSC-DP-31-GW-110126	1/26/11	0920	H ₂ O	1	X				X Allow water samples to settle, collect aliquot from clear portion
KSC-DP-32-GW-110126		0955	H ₂ O	1	X				X NWTPH-Dx - run acid wash/silica gel cleanup
KSC-DP-33-GW-110126		1020	H ₂ O	1	X				
KSC-DP-21-GW-110126		1120	H ₂ O	3		X			
KSC-DP-31-S-5-6-110126		0850	Soil	1	X				____ run samples standardized to _____ product
KSC-DP-32-S-3.5-4.5-110126		0910	Soil	1	X				____ Analyze for EPH if no specific product identified
KSC-DP-33-S-1.5-2.5-110126		0935	Soil	1	X				VOC/BTEX/VPH (soil):
KSC-DP-21-S-0-0.5-110126		1040	Soil	3		X			____ non-preserved
KSC-DP-21-S-3-3.5-110126		1045	Soil	3		X			____ preserved w/methanol
KSC-DP-21-S-2.5-3-110126		1050	Soil	3					____ preserved w/sodium bisulfate
KSC-DP-25b-S-4.5-5-110126		1310	Soil	1			X	X	____ Freeze upon receipt
KSC-DP-25b-S-7-8-110126		1315	Soil	1			X	X	✓ Dissolved metal water samples field filtered
KSC-DP-24-S-6-7-110126		1400	Soil	4			X	X	Other <u>Archive Samples not marked for analysis</u>
KSC-DP-24-S-8-9-110126		1405	Soil	3					
KSC-DP-22-GW-110126		1515	H ₂ O	5	X	X	X		
KSC-DP-23-GW-110126		1540	H ₂ O	5	X	X	X		
KSC-DP-24-GW-110126		1430	H ₂ O	5	X	X	X		
KSC-DP-25b-GW-110126		1300	H ₂ O	5	X	X	X		
Special Shipment/Handling or Storage Requirements		on <u>ice</u>				Method of Shipment <u>deliver to ARI</u>			
Relinquished by		Received by		Relinquished by		Received by			
Signature _____		Signature _____		Signature _____		Signature _____			
Printed Name <u>Paul Rymaker</u>		Printed Name <u>Jennifer Millsap</u>		Printed Name _____		Printed Name _____			
Company <u>CAI</u>		Company <u>ARI</u>		Company _____		Company _____			
Date <u>1/26/11</u> Time <u>1650</u>		Date <u>1/26/11</u> Time <u>1650</u>		Date _____ Time _____		Date _____ Time _____			



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____

Date 1/26/2011
Page 2 of 2

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>025195.032032</u>					Testing Parameters					Turnaround Time <input type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____		
Project Location/Event <u>Kent, WA / Phase II Supplemental</u>					VOCs							
Sampler's Name <u>PRR/SED</u>												
Project Contact <u>Tim Syversen, Kathryn Hartley, Joe Flaherty</u>												
Send Results To <u>"", "", "", Anne Halvorsen</u>												
Sample I.D.	Date	Time	Matrix	No. of Containers						Observations/Comments		
<u>TB</u>	<u>1/20/11</u>			<u>2</u>	<u>7</u>	<u>8</u>						<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion
<u>PSC-DR-25-GW-110126</u>	<u>1/26/11</u>	<u>1300</u>	<u>H₂O</u>	<u>5</u>								<input checked="" type="checkbox"/> NWTPH-Dx - 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 type="checkbox"/> Dissolved metal water samples field filtered
												Other _____
Special Shipment/Handling or Storage Requirements <u>On ice</u>					Method of Shipment <u>Priority</u>							
Relinquished by <u>[Signature]</u> Signature <u>Tom L. Rayner</u> Printed Name <u>CAF</u> Company Date <u>1/26/11</u> Time <u>1650</u>			Received by <u>[Signature]</u> Signature <u>Jennifer Millsap</u> Printed Name <u>ART</u> Company Date <u>1/26/11</u> Time <u>1650</u>			Relinquished by Signature Printed Name Company Date _____ Time _____			Received by Signature Printed Name Company Date _____ Time _____			

Subject: RE: SG59 - Confirmation
From: "Kathryn Hartley" <khartley@landauinc.com>
Date: Fri, 28 Jan 2011 14:19:10 -0800
To: Eric Branson <eric@arilabs.com>
CC: Kelly Bottem <kellyb@arilabs.com>

Eric,

That is correct. We do not want to run the 0-0.5 sample (which is why additional sample was not collected). The 2.5-3 sample should be placed on hold and the 2.5-3 sample should be run for VOCs. The samples should have the same number. Everything looks correct.

I sent the attached revised COC to Kelly this morning as well. Please note that we are requesting analysis of the trip blank submitted 1/26/11 for TPH-G in addition to VOCs.

Let me know if you have any additional questions.

Thank you,
Kathryn

Kathryn F. Hartley * Senior Project Scientist
Landau Associates, Inc.
130 2nd Ave. S, Edmonds, WA 98020
425.778.0907 * direct 425.329.0268 * cell 425.248.7520
khartley@landauinc.com * www.landauinc.com

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From: Eric Branson [<mailto:eric@arilabs.com>]
Sent: Friday, January 28, 2011 1:39 PM
To: Kathryn Hartley
Cc: Kelly Bottem
Subject: SG59 - Confirmation

Kathryn,

Can you take a look at this? To be honest, having not processed the paperwork from the first job myself, this is pretty confusing to me. It seems that the sample we didn't receive additional volume for is KSC-DP-21-S-0-0.5-110126. Hopefully that is the sample you didn't plan on running VOCs on. 21-S-2.5-3 is the sample we received VOC volume for, but is only on hold. 21-3-3.5 is the sample we we received additional volume for and is being run.

Resamples on 01/27 have 01/27 as the sample date, but retain the -110126 sample suffix to match the previously received volume.

Let me know if anything looks out of place before I give final approval to process the samples. Thanks.

-Eric-

--

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: KSC-DP-21-GW-110126
SAMPLE

Lab Sample ID: SG42D
LIMS ID: 11-1696
Matrix: Water
Data Release Authorized:
Reported: 02/11/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: 01/26/11
Date Received: 01/26/11

Instrument/Analyst: NT5/PAB
Date Analyzed: 01/28/11 14:36

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	2.4	
67-64-1	Acetone	5.0	970	E
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	5.0	240	Q
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	0.8	
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	0.8	
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)	5.0	40	
591-78-6	2-Hexanone	5.0	26	Q
127-18-4	Tetrachloroethene	0.2	0.2	
79-34-5	1,1,2,2-Tetrachloroethane	0.2	< 0.2	U
108-88-3	Toluene	0.2	1.6	
108-90-7	Chlorobenzene	0.2	< 0.2	U
100-41-4	Ethylbenzene	0.2	0.3	
100-42-5	Styrene	0.2	3.0	
75-69-4	Trichlorofluoromethane	0.2	0.6	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	3.4	
179601-23-1	m,p-Xylene	0.4	0.7	
95-47-6	o-Xylene	0.2	0.4	
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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-21-GW-110126

Page 2 of 2

SAMPLE

Lab Sample ID: SG42D

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1696

Project: Striker

Matrix: Water

025195.003.032

Date Analyzed: 01/28/11 14:36

CAS Number	Analyte	RL	Result	Q
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
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	0.4	
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	1.9	
87-61-6	1,2,3-Trichlorobenzene	0.5	< 0.5	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	94.9%
d8-Toluene	99.9%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	98.9%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-21-GW-110126

Page 1 of 2

DILUTION

Lab Sample ID: SG42D

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1696

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: *MW*

Date Sampled: 01/26/11

Reported: 02/02/11

Date Received: 01/26/11

Instrument/Analyst: NT5/PAB

Sample Amount: 1.00 mL

Date Analyzed: 01/30/11 14:08

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	5.0	< 5.0	U
74-83-9	Bromomethane	10	< 10	U
75-01-4	Vinyl Chloride	2.0	< 2.0	U
75-00-3	Chloroethane	2.0	< 2.0	U
75-09-2	Methylene Chloride	5.0	< 5.0	U
67-64-1	Acetone	50	980	
75-15-0	Carbon Disulfide	2.0	< 2.0	U
75-35-4	1,1-Dichloroethene	2.0	< 2.0	U
75-34-3	1,1-Dichloroethane	2.0	< 2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	< 2.0	U
156-59-2	cis-1,2-Dichloroethene	2.0	< 2.0	U
67-66-3	Chloroform	2.0	< 2.0	U
107-06-2	1,2-Dichloroethane	2.0	< 2.0	U
78-93-3	2-Butanone	50	220	
71-55-6	1,1,1-Trichloroethane	2.0	< 2.0	U
56-23-5	Carbon Tetrachloride	2.0	< 2.0	U
108-05-4	Vinyl Acetate	10	< 10	U
75-27-4	Bromodichloromethane	2.0	< 2.0	U
78-87-5	1,2-Dichloropropane	2.0	< 2.0	U
10061-01-5	cis-1,3-Dichloropropene	2.0	< 2.0	U
79-01-6	Trichloroethene	2.0	< 2.0	U
124-48-1	Dibromochloromethane	2.0	< 2.0	U
79-00-5	1,1,2-Trichloroethane	2.0	< 2.0	U
71-43-2	Benzene	2.0	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	< 2.0	U
110-75-8	2-Chloroethylvinylether	10	< 10	U
75-25-2	Bromoform	2.0	< 2.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	50	< 50	U
591-78-6	2-Hexanone	50	< 50	U
127-18-4	Tetrachloroethene	2.0	< 2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	2.0	< 2.0	U
108-88-3	Toluene	2.0	< 2.0	U
108-90-7	Chlorobenzene	2.0	< 2.0	U
100-41-4	Ethylbenzene	2.0	< 2.0	U
100-42-5	Styrene	2.0	< 2.0	U
75-69-4	Trichlorofluoromethane	2.0	< 2.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	2.9	
179601-23-1	m,p-Xylene	4.0	< 4.0	U
95-47-6	o-Xylene	2.0	< 2.0	U
95-50-1	1,2-Dichlorobenzene	2.0	< 2.0	U
541-73-1	1,3-Dichlorobenzene	2.0	< 2.0	U
106-46-7	1,4-Dichlorobenzene	2.0	< 2.0	U
107-02-8	Acrolein	50	< 50	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-21-GW-110126
DILUTION

Lab Sample ID: SG42D
LIMS ID: 11-1696
Matrix: Water
Date Analyzed: 01/30/11 14:08

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	10	< 10	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	10	< 10	U
563-58-6	1,1-Dichloropropene	2.0	< 2.0	U
74-95-3	Dibromomethane	2.0	< 2.0	U
630-20-6	1,1,1,2-Tetrachloroethane	2.0	< 2.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	< 5.0	U
110-57-6	trans-1,4-Dichloro-2-butene	10	< 10	U
108-67-8	1,3,5-Trimethylbenzene	2.0	< 2.0	U
95-63-6	1,2,4-Trimethylbenzene	2.0	< 2.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	2.0	< 2.0	U
74-97-5	Bromochloromethane	2.0	< 2.0	U
594-20-7	2,2-Dichloropropane	2.0	< 2.0	U
142-28-9	1,3-Dichloropropane	2.0	< 2.0	U
98-82-8	Isopropylbenzene	2.0	< 2.0	U
103-65-1	n-Propylbenzene	2.0	< 2.0	U
108-86-1	Bromobenzene	2.0	< 2.0	U
95-49-8	2-Chlorotoluene	2.0	< 2.0	U
106-43-4	4-Chlorotoluene	2.0	< 2.0	U
98-06-6	tert-Butylbenzene	2.0	< 2.0	U
135-98-8	sec-Butylbenzene	2.0	< 2.0	U
99-87-6	4-Isopropyltoluene	2.0	< 2.0	U
104-51-8	n-Butylbenzene	2.0	< 2.0	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 µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	97.6%
d8-Toluene	99.2%
Bromofluorobenzene	93.6%
d4-1,2-Dichlorobenzene	99.4%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: TB
SAMPLE

Lab Sample ID: SG42P

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1708

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: *WV*

Date Sampled: 01/26/11

Reported: 02/02/11

Date Received: 01/26/11

Instrument/Analyst: NT5/PAB

Sample Amount: 10.0 mL

Date Analyzed: 01/28/11 15:04

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: TB
SAMPLE

Lab Sample ID: SG42P
LIMS ID: 11-1708
Matrix: Water
Date Analyzed: 01/28/11 15:04

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

CAS Number	Analyte	RL	Result	Q
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
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	96.1%
d8-Toluene	98.5%
Bromofluorobenzene	93.3%
d4-1,2-Dichlorobenzene	98.5%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: SG42-Landau Associates, Inc.
 Project: Striker
 025195.003.032

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-013011	Method Blank	10	97.9%	96.3%	93.6%	98.5%	0
LCS-013011	Lab Control	10	96.6%	98.0%	96.1%	96.9%	0
LCSD-013011	Lab Control Dup	10	95.2%	98.3%	97.5%	96.4%	0
SG42D	KSC-DP-21-GW-110126	10	94.9%	99.9%	101%	98.9%	0
SG42DDL	KSC-DP-21-GW-110126	10	97.6%	99.2%	93.6%	99.4%	0
SG42DMS	KSC-DP-21-GW-110126	10	96.5%	98.5%	97.8%	98.0%	0
SG42DMSD	KSC-DP-21-GW-110126	10	95.1%	98.2%	101%	97.5%	0
MB-012811	Method Blank	10	109%	99.8%	98.0%	96.0%	0
LCS-012811	Lab Control	10	105%	100%	104%	96.1%	0
LCSD-012811	Lab Control Dup	10	105%	101%	102%	96.1%	0
SG42P	TB	10	96.1%	98.5%	93.3%	98.5%	0

LCS/MB LIMITS

QC LIMITS

SW8260C

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

80-120
 80-120
 80-120
 80-120

80-120
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 80-120

Prep Method: SW5030B
 Log Number Range: 11-1696 to 11-1708

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: KSC-DP-21-GW-110126
MATRIX SPIKE

Lab Sample ID: SG42D
LIMS ID: 11-1696
Matrix: Water
Data Release Authorized: *SM*
Reported: 02/02/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: 01/26/11
Date Received: 01/26/11

Instrument/Analyst MS: NT5/PAB
MSD: NT5/PAB
Date Analyzed MS: 01/30/11 18:13
MSD: 01/30/11 18:40

Sample Amount MS: 1.00 mL
MSD: 1.00 mL
Purge Volume MS: 10.0 mL
MSD: 10.0 mL

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Chloromethane	< 5.0 U	84.9	100	84.9%	89.3	100	89.3%	5.1%
Bromomethane	< 10.0 U	101	100	101%	107	100	107%	5.8%
Vinyl Chloride	< 2.0 U	90.2	100	90.2%	94.7	100	94.7%	4.9%
Chloroethane	< 2.0 U	101	100	101%	108	100	108%	6.7%
Methylene Chloride	< 5.0 U	107	100	107%	107	100	107%	0.0%
Acetone	975	1550	500	115%	1580	500	121%	1.9%
Carbon Disulfide	< 2.0 U	98.4	100	98.4%	96.3	100	96.3%	2.2%
1,1-Dichloroethene	< 2.0 U	105	100	105%	99.8	100	99.8%	5.1%
1,1-Dichloroethane	< 2.0 U	98.4	100	98.4%	99.6	100	99.6%	1.2%
trans-1,2-Dichloroethene	< 2.0 U	97.8	100	97.8%	99.9	100	99.9%	2.1%
cis-1,2-Dichloroethene	< 2.0 U	101	100	101%	102	100	102%	1.0%
Chloroform	< 2.0 U	98.2	100	98.2%	99.3	100	99.3%	1.1%
1,2-Dichloroethane	< 2.0 U	95.6	100	95.6%	97.9	100	97.9%	2.4%
2-Butanone	224	796	500	114%	814	500	118%	2.2%
1,1,1-Trichloroethane	< 2.0 U	97.7	100	97.7%	97.9	100	97.9%	0.2%
Carbon Tetrachloride	< 2.0 U	97.3	100	97.3%	97.1	100	97.1%	0.2%
Vinyl Acetate	< 10.0 U	92.1	100	92.1%	99.0	100	99.0%	7.2%
Bromodichloromethane	< 2.0 U	97.3	100	97.3%	98.4	100	98.4%	1.1%
1,2-Dichloropropane	< 2.0 U	96.1	100	96.1%	98.0	100	98.0%	2.0%
cis-1,3-Dichloropropene	< 2.0 U	98.3	100	98.3%	100	100	100%	1.7%
Trichloroethene	< 2.0 U	97.5	100	97.5%	96.5	100	96.5%	1.0%
Dibromochloromethane	< 2.0 U	98.3	100	98.3%	98.9	100	98.9%	0.6%
1,1,2-Trichloroethane	< 2.0 U	103	100	103%	104	100	104%	1.0%
Benzene	2.0	105	100	103%	106	100	104%	0.9%
trans-1,3-Dichloropropene	< 2.0 U	101	100	101%	101	100	101%	0.0%
2-Chloroethylvinylether	< 10.0 U	83.4	100	83.4%	82.1	100	82.1%	1.6%
Bromoform	< 2.0 U	100	100	100%	97.6	100	97.6%	2.4%
4-Methyl-2-Pentanone (MIBK)	< 50.0 U	646	500	129%	676	500	135%	4.5%
2-Hexanone	< 50.0 U	644	500	129%	678	500	136%	5.1%
Tetrachloroethene	< 2.0 U	91.7	100	91.7%	90.7	100	90.7%	1.1%
1,1,2,2-Tetrachloroethane	< 2.0 U	102	100	102%	103	100	103%	1.0%
Toluene	< 2.0 U	103	100	103%	102	100	102%	1.0%
Chlorobenzene	< 2.0 U	102	100	102%	102	100	102%	0.0%
Ethylbenzene	< 2.0 U	101	100	101%	101	100	101%	0.0%
Styrene	< 2.0 U	112	100	112%	112	100	112%	0.0%
Trichlorofluoromethane	< 2.0 U	97.2	100	97.2%	94.9	100	94.9%	2.4%
1,1,2-Trichloro-1,2,2-trifl	2.9	99.9	100	97.0%	101	100	98.1%	1.1%
m,p-Xylene	< 4.0 U	215	200	108%	213	200	106%	0.9%
o-Xylene	< 2.0 U	104	100	104%	105	100	105%	1.0%
1,2-Dichlorobenzene	< 2.0 U	101	100	101%	99.6	100	99.6%	1.4%
1,3-Dichlorobenzene	< 2.0 U	100	100	100%	98.1	100	98.1%	1.9%
1,4-Dichlorobenzene	< 2.0 U	100	100	100%	98.0	100	98.0%	2.0%
Acrolein	< 50.0 U	594	500	119%	632	500	126%	6.2%
Methyl Iodide	< 10.0 U	130	100	130%	131	100	131%	0.8%
Bromoethane	< 2.0 U	111	100	111%	107	100	107%	3.7%
Acrylonitrile	< 10.0 U	97.0	100	97.0%	101	100	101%	4.0%
1,1-Dichloropropene	< 2.0 U	96.6	100	96.6%	98.1	100	98.1%	1.5%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-21-GW-110126
MATRIX SPIKE

Lab Sample ID: SG42D
LIMS ID: 11-1696
Matrix: Water

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Dibromomethane	< 2.0 U	97.7	100	97.7%	97.6	100	97.6%	0.1%
1,1,1,2-Tetrachloroethane	< 2.0 U	102	100	102%	101	100	101%	1.0%
1,2-Dibromo-3-chloropropane	< 5.0 U	99.9	100	99.9%	101	100	101%	1.1%
1,2,3-Trichloropropane	< 5.0 U	103	100	103%	103	100	103%	0.0%
trans-1,4-Dichloro-2-butene	< 10.0 U	97.7	100	97.7%	90.1	100	90.1%	8.1%
1,3,5-Trimethylbenzene	< 2.0 U	105	100	105%	103	100	103%	1.9%
1,2,4-Trimethylbenzene	< 2.0 U	106	100	106%	104	100	104%	1.9%
Hexachlorobutadiene	< 5.0 U	91.1	100	91.1%	90.7	100	90.7%	0.4%
Ethylene Dibromide	< 2.0 U	100	100	100%	102	100	102%	2.0%
Bromochloromethane	< 2.0 U	101	100	101%	95.4	100	95.4%	5.7%
2,2-Dichloropropane	< 2.0 U	90.3	100	90.3%	89.8	100	89.8%	0.6%
1,3-Dichloropropane	< 2.0 U	97.5	100	97.5%	100	100	100%	2.5%
Isopropylbenzene	< 2.0 U	105	100	105%	104	100	104%	1.0%
n-Propylbenzene	< 2.0 U	102	100	102%	101	100	101%	1.0%
Bromobenzene	< 2.0 U	98.2	100	98.2%	95.0	100	95.0%	3.3%
2-Chlorotoluene	< 2.0 U	102	100	102%	101	100	101%	1.0%
4-Chlorotoluene	< 2.0 U	105	100	105%	102	100	102%	2.9%
tert-Butylbenzene	< 2.0 U	104	100	104%	103	100	103%	1.0%
sec-Butylbenzene	< 2.0 U	105	100	105%	103	100	103%	1.9%
4-Isopropyltoluene	< 2.0 U	106	100	106%	105	100	105%	0.9%
n-Butylbenzene	< 2.0 U	103	100	103%	102	100	102%	1.0%
1,2,4-Trichlorobenzene	< 5.0 U	99.6	100	99.6%	99.9	100	99.9%	0.3%
Naphthalene	< 5.0 U	119	100	119%	124	100	124%	4.1%
1,2,3-Trichlorobenzene	< 5.0 U	111	100	111%	113	100	113%	1.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.
Recoveries calculated from secondary analysis.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-21-GW-110126

Page 1 of 2

MATRIX SPIKE

Lab Sample ID: SG42D

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1696

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: *MMW*

Date Sampled: 01/26/11

Reported: 02/02/11

Date Received: 01/26/11

Instrument/Analyst: NT5/PAB

Sample Amount: 1.00 mL

Date Analyzed: 01/30/11 18:13

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	5.0	---	
74-83-9	Bromomethane	10	---	
75-01-4	Vinyl Chloride	2.0	---	
75-00-3	Chloroethane	2.0	---	
75-09-2	Methylene Chloride	5.0	---	
67-64-1	Acetone	50	---	
75-15-0	Carbon Disulfide	2.0	---	
75-35-4	1,1-Dichloroethene	2.0	---	
75-34-3	1,1-Dichloroethane	2.0	---	
156-60-5	trans-1,2-Dichloroethene	2.0	---	
156-59-2	cis-1,2-Dichloroethene	2.0	---	
67-66-3	Chloroform	2.0	---	
107-06-2	1,2-Dichloroethane	2.0	---	
78-93-3	2-Butanone	50	---	
71-55-6	1,1,1-Trichloroethane	2.0	---	
56-23-5	Carbon Tetrachloride	2.0	---	
108-05-4	Vinyl Acetate	10	---	
75-27-4	Bromodichloromethane	2.0	---	
78-87-5	1,2-Dichloropropane	2.0	---	
10061-01-5	cis-1,3-Dichloropropene	2.0	---	
79-01-6	Trichloroethene	2.0	---	
124-48-1	Dibromochloromethane	2.0	---	
79-00-5	1,1,2-Trichloroethane	2.0	---	
71-43-2	Benzene	2.0	---	
10061-02-6	trans-1,3-Dichloropropene	2.0	---	
110-75-8	2-Chloroethylvinylether	10	---	
75-25-2	Bromoform	2.0	---	
108-10-1	4-Methyl-2-Pentanone (MIBK)	50	---	
591-78-6	2-Hexanone	50	---	
127-18-4	Tetrachloroethene	2.0	---	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	---	
108-88-3	Toluene	2.0	---	
108-90-7	Chlorobenzene	2.0	---	
100-41-4	Ethylbenzene	2.0	---	
100-42-5	Styrene	2.0	---	
75-69-4	Trichlorofluoromethane	2.0	---	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	---	
179601-23-1	m,p-Xylene	4.0	---	
95-47-6	o-Xylene	2.0	---	
95-50-1	1,2-Dichlorobenzene	2.0	---	
541-73-1	1,3-Dichlorobenzene	2.0	---	
106-46-7	1,4-Dichlorobenzene	2.0	---	
107-02-8	Acrolein	50	---	

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-21-GW-110126
MATRIX SPIKE

Lab Sample ID: SG42D
LIMS ID: 11-1696
Matrix: Water
Date Analyzed: 01/30/11 18:13

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	10	---	
74-96-4	Bromoethane	2.0	---	
107-13-1	Acrylonitrile	10	---	
563-58-6	1,1-Dichloropropene	2.0	---	
74-95-3	Dibromomethane	2.0	---	
630-20-6	1,1,1,2-Tetrachloroethane	2.0	---	
96-12-8	1,2-Dibromo-3-chloropropane	5.0	---	
96-18-4	1,2,3-Trichloropropane	5.0	---	
110-57-6	trans-1,4-Dichloro-2-butene	10	---	
108-67-8	1,3,5-Trimethylbenzene	2.0	---	
95-63-6	1,2,4-Trimethylbenzene	2.0	---	
87-68-3	Hexachlorobutadiene	5.0	---	
106-93-4	Ethylene Dibromide	2.0	---	
74-97-5	Bromochloromethane	2.0	---	
594-20-7	2,2-Dichloropropane	2.0	---	
142-28-9	1,3-Dichloropropane	2.0	---	
98-82-8	Isopropylbenzene	2.0	---	
103-65-1	n-Propylbenzene	2.0	---	
108-86-1	Bromobenzene	2.0	---	
95-49-8	2-Chlorotoluene	2.0	---	
106-43-4	4-Chlorotoluene	2.0	---	
98-06-6	tert-Butylbenzene	2.0	---	
135-98-8	sec-Butylbenzene	2.0	---	
99-87-6	4-Isopropyltoluene	2.0	---	
104-51-8	n-Butylbenzene	2.0	---	
120-82-1	1,2,4-Trichlorobenzene	5.0	---	
91-20-3	Naphthalene	5.0	---	
87-61-6	1,2,3-Trichlorobenzene	5.0	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	96.5%
d8-Toluene	98.5%
Bromofluorobenzene	97.8%
d4-1,2-Dichlorobenzene	98.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: KSC-DP-21-GW-110126
MATRIX SPIKE DUP

Lab Sample ID: SG42D

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1696

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: *WV*

Date Sampled: 01/26/11

Reported: 02/02/11

Date Received: 01/26/11

Instrument/Analyst: NT5/PAB

Sample Amount: 1.00 mL

Date Analyzed: 01/30/11 18:40

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	5.0	---	
74-83-9	Bromomethane	10	---	
75-01-4	Vinyl Chloride	2.0	---	
75-00-3	Chloroethane	2.0	---	
75-09-2	Methylene Chloride	5.0	---	
67-64-1	Acetone	50	---	
75-15-0	Carbon Disulfide	2.0	---	
75-35-4	1,1-Dichloroethene	2.0	---	
75-34-3	1,1-Dichloroethane	2.0	---	
156-60-5	trans-1,2-Dichloroethene	2.0	---	
156-59-2	cis-1,2-Dichloroethene	2.0	---	
67-66-3	Chloroform	2.0	---	
107-06-2	1,2-Dichloroethane	2.0	---	
78-93-3	2-Butanone	50	---	
71-55-6	1,1,1-Trichloroethane	2.0	---	
56-23-5	Carbon Tetrachloride	2.0	---	
108-05-4	Vinyl Acetate	10	---	
75-27-4	Bromodichloromethane	2.0	---	
78-87-5	1,2-Dichloropropane	2.0	---	
10061-01-5	cis-1,3-Dichloropropene	2.0	---	
79-01-6	Trichloroethene	2.0	---	
124-48-1	Dibromochloromethane	2.0	---	
79-00-5	1,1,2-Trichloroethane	2.0	---	
71-43-2	Benzene	2.0	---	
10061-02-6	trans-1,3-Dichloropropene	2.0	---	
110-75-8	2-Chloroethylvinylether	10	---	
75-25-2	Bromoform	2.0	---	
108-10-1	4-Methyl-2-Pentanone (MIBK)	50	---	
591-78-6	2-Hexanone	50	---	
127-18-4	Tetrachloroethene	2.0	---	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	---	
108-88-3	Toluene	2.0	---	
108-90-7	Chlorobenzene	2.0	---	
100-41-4	Ethylbenzene	2.0	---	
100-42-5	Styrene	2.0	---	
75-69-4	Trichlorofluoromethane	2.0	---	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	---	
179601-23-1	m,p-Xylene	4.0	---	
95-47-6	o-Xylene	2.0	---	
95-50-1	1,2-Dichlorobenzene	2.0	---	
541-73-1	1,3-Dichlorobenzene	2.0	---	
106-46-7	1,4-Dichlorobenzene	2.0	---	
107-02-8	Acrolein	50	---	

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: KSC-DP-21-GW-110126
MATRIX SPIKE DUP

Lab Sample ID: SG42D
LIMS ID: 11-1696
Matrix: Water
Date Analyzed: 01/30/11 18:40

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	10	---	
74-96-4	Bromoethane	2.0	---	
107-13-1	Acrylonitrile	10	---	
563-58-6	1,1-Dichloropropene	2.0	---	
74-95-3	Dibromomethane	2.0	---	
630-20-6	1,1,1,2-Tetrachloroethane	2.0	---	
96-12-8	1,2-Dibromo-3-chloropropane	5.0	---	
96-18-4	1,2,3-Trichloropropane	5.0	---	
110-57-6	trans-1,4-Dichloro-2-butene	10	---	
108-67-8	1,3,5-Trimethylbenzene	2.0	---	
95-63-6	1,2,4-Trimethylbenzene	2.0	---	
87-68-3	Hexachlorobutadiene	5.0	---	
106-93-4	Ethylene Dibromide	2.0	---	
74-97-5	Bromochloromethane	2.0	---	
594-20-7	2,2-Dichloropropane	2.0	---	
142-28-9	1,3-Dichloropropane	2.0	---	
98-82-8	Isopropylbenzene	2.0	---	
103-65-1	n-Propylbenzene	2.0	---	
108-86-1	Bromobenzene	2.0	---	
95-49-8	2-Chlorotoluene	2.0	---	
106-43-4	4-Chlorotoluene	2.0	---	
98-06-6	tert-Butylbenzene	2.0	---	
135-98-8	sec-Butylbenzene	2.0	---	
99-87-6	4-Isopropyltoluene	2.0	---	
104-51-8	n-Butylbenzene	2.0	---	
120-82-1	1,2,4-Trichlorobenzene	5.0	---	
91-20-3	Naphthalene	5.0	---	
87-61-6	1,2,3-Trichlorobenzene	5.0	---	

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	95.1%
d8-Toluene	98.2%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	97.5%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-012811

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-012811

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1708

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: *WVW*

Date Sampled: NA

Reported: 02/02/11

Date Received: NA

Instrument/Analyst LCS: NT5/PAB

Sample Amount LCS: 10.0 mL

LCS D: NT5/PAB

LCS D: 10.0 mL

Date Analyzed LCS: 01/28/11 10:20

Purge Volume LCS: 10.0 mL

LCS D: 01/28/11 10:47

LCS D: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS D	Spike Added-LCS D	LCS D Recovery	RPD
Chloromethane	10.2	10.0	102%	10.4	10.0	104%	1.9%
Bromomethane	10.9	10.0	109%	11.3	10.0	113%	3.6%
Vinyl Chloride	10.6	10.0	106%	10.8	10.0	108%	1.9%
Chloroethane	11.8	10.0	118%	12.0	10.0	120%	1.7%
Methylene Chloride	10.5	10.0	105%	10.6	10.0	106%	0.9%
Acetone	53.3	50.0	107%	54.5	50.0	109%	2.2%
Carbon Disulfide	11.0	10.0	110%	11.1	10.0	111%	0.9%
1,1-Dichloroethene	9.9	10.0	99.0%	10.2	10.0	102%	3.0%
1,1-Dichloroethane	10.6	10.0	106%	10.5	10.0	105%	0.9%
trans-1,2-Dichloroethene	10.0	10.0	100%	9.8	10.0	98.0%	2.0%
cis-1,2-Dichloroethene	10.3	10.0	103%	10.4	10.0	104%	1.0%
Chloroform	10.1	10.0	101%	10.2	10.0	102%	1.0%
1,2-Dichloroethane	9.3	10.0	93.0%	9.8	10.0	98.0%	5.2%
2-Butanone	58.1 Q	50.0	116%	59.3 Q	50.0	119%	2.0%
1,1,1-Trichloroethane	9.9	10.0	99.0%	10.0	10.0	100%	1.0%
Carbon Tetrachloride	9.2	10.0	92.0%	9.2	10.0	92.0%	0.0%
Vinyl Acetate	10.8	10.0	108%	11.2	10.0	112%	3.6%
Bromodichloromethane	9.6	10.0	96.0%	9.8	10.0	98.0%	2.1%
1,2-Dichloropropane	10.1	10.0	101%	10.4	10.0	104%	2.9%
cis-1,3-Dichloropropene	10.3	10.0	103%	10.6	10.0	106%	2.9%
Trichloroethene	9.1	10.0	91.0%	9.3	10.0	93.0%	2.2%
Dibromochloromethane	9.4	10.0	94.0%	9.5	10.0	95.0%	1.1%
1,1,2-Trichloroethane	9.8	10.0	98.0%	9.9	10.0	99.0%	1.0%
Benzene	10.1	10.0	101%	10.3	10.0	103%	2.0%
trans-1,3-Dichloropropene	10.1	10.0	101%	10.2	10.0	102%	1.0%
2-Chloroethylvinylether	9.3	10.0	93.0%	9.8	10.0	98.0%	5.2%
Bromoform	9.6	10.0	96.0%	9.8	10.0	98.0%	2.1%
4-Methyl-2-Pentanone (MIBK)	56.4	50.0	113%	57.9	50.0	116%	2.6%
2-Hexanone	60.9 Q	50.0	122%	61.8 Q	50.0	124%	1.5%
Tetrachloroethene	8.6	10.0	86.0%	8.7	10.0	87.0%	1.2%
1,1,2,2-Tetrachloroethane	10.1	10.0	101%	10.2	10.0	102%	1.0%
Toluene	9.6	10.0	96.0%	9.9	10.0	99.0%	3.1%
Chlorobenzene	9.8	10.0	98.0%	9.9	10.0	99.0%	1.0%
Ethylbenzene	9.7	10.0	97.0%	9.9	10.0	99.0%	2.0%
Styrene	10.8	10.0	108%	10.6	10.0	106%	1.9%
Trichlorofluoromethane	9.6	10.0	96.0%	9.9	10.0	99.0%	3.1%
1,1,2-Trichloro-1,2,2-trifluoroethane	9.9	10.0	99.0%	10.0	10.0	100%	1.0%
m,p-Xylene	20.3	20.0	102%	20.2	20.0	101%	0.5%
o-Xylene	10.0	10.0	100%	10.1	10.0	101%	1.0%
1,2-Dichlorobenzene	9.4	10.0	94.0%	9.6	10.0	96.0%	2.1%
1,3-Dichlorobenzene	9.5	10.0	95.0%	9.6	10.0	96.0%	1.0%
1,4-Dichlorobenzene	9.5	10.0	95.0%	9.6	10.0	96.0%	1.0%
Acrolein	65.4 Q	50.0	131%	65.8 Q	50.0	132%	0.6%
Methyl Iodide	12.0	10.0	120%	12.1	10.0	121%	0.8%
Bromoethane	10.6	10.0	106%	10.9	10.0	109%	2.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Page 2 of 2

Sample ID: LCS-012811

LAB CONTROL SAMPLE

Lab Sample ID: LCS-012811

LIMS ID: 11-1708

Matrix: Water

QC Report No: SG42-Landau Associates, Inc.

Project: Striker

025195.003.032

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrylonitrile	10.9	10.0	109%	10.8	10.0	108%	0.9%
1,1-Dichloropropene	10.1	10.0	101%	10.3	10.0	103%	2.0%
Dibromomethane	9.6	10.0	96.0%	9.7	10.0	97.0%	1.0%
1,1,1,2-Tetrachloroethane	9.6	10.0	96.0%	9.7	10.0	97.0%	1.0%
1,2-Dibromo-3-chloropropane	9.2	10.0	92.0%	9.4	10.0	94.0%	2.2%
1,2,3-Trichloropropane	10.0	10.0	100%	10.1	10.0	101%	1.0%
trans-1,4-Dichloro-2-butene	9.6	10.0	96.0%	9.8	10.0	98.0%	2.1%
1,3,5-Trimethylbenzene	10.6	10.0	106%	10.7	10.0	107%	0.9%
1,2,4-Trimethylbenzene	10.7	10.0	107%	10.8	10.0	108%	0.9%
Hexachlorobutadiene	8.2	10.0	82.0%	8.7	10.0	87.0%	5.9%
Ethylene Dibromide	9.6	10.0	96.0%	9.8	10.0	98.0%	2.1%
Bromochloromethane	9.3	10.0	93.0%	9.4	10.0	94.0%	1.1%
2,2-Dichloropropane	10.1	10.0	101%	10.1	10.0	101%	0.0%
1,3-Dichloropropane	10.1	10.0	101%	10.1	10.0	101%	0.0%
Isopropylbenzene	10.7	10.0	107%	10.8	10.0	108%	0.9%
n-Propylbenzene	10.5	10.0	105%	10.6	10.0	106%	0.9%
Bromobenzene	9.2	10.0	92.0%	9.4	10.0	94.0%	2.2%
2-Chlorotoluene	10.6	10.0	106%	10.7	10.0	107%	0.9%
4-Chlorotoluene	10.7	10.0	107%	10.8	10.0	108%	0.9%
tert-Butylbenzene	10.3	10.0	103%	10.4	10.0	104%	1.0%
sec-Butylbenzene	9.1	10.0	91.0%	9.1	10.0	91.0%	0.0%
4-Isopropyltoluene	10.5	10.0	105%	10.6	10.0	106%	0.9%
n-Butylbenzene	10.8	10.0	108%	10.9	10.0	109%	0.9%
1,2,4-Trichlorobenzene	9.0	10.0	90.0%	9.2	10.0	92.0%	2.2%
Naphthalene	10.0	10.0	100%	10.4	10.0	104%	3.9%
1,2,3-Trichlorobenzene	9.2	10.0	92.0%	9.4	10.0	94.0%	2.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	105%	105%
d8-Toluene	100%	101%
Bromofluorobenzene	104%	102%
d4-1,2-Dichlorobenzene	96.1%	96.1%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-013011

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-013011

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1696

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: *WV*

Date Sampled: NA

Reported: 02/02/11

Date Received: NA

Instrument/Analyst LCS: NT5/PAB

Sample Amount LCS: 10.0 mL

LCS: NT5/PAB

LCS: 10.0 mL

Date Analyzed LCS: 01/30/11 11:56

Purge Volume LCS: 10.0 mL

LCS: 01/30/11 12:23

LCS: 10.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCS	LCS Recovery	RPD
Chloromethane	8.8	10.0	88.0%	8.7	10.0	87.0%	1.1%
Bromomethane	10.3	10.0	103%	10.7	10.0	107%	3.8%
Vinyl Chloride	9.3	10.0	93.0%	9.4	10.0	94.0%	1.1%
Chloroethane	10.4	10.0	104%	10.5	10.0	105%	1.0%
Methylene Chloride	10.2	10.0	102%	10.0	10.0	100%	2.0%
Acetone	46.0	50.0	92.0%	45.2	50.0	90.4%	1.8%
Carbon Disulfide	10.5	10.0	105%	10.8	10.0	108%	2.8%
1,1-Dichloroethene	10.8	10.0	108%	10.1	10.0	101%	6.7%
1,1-Dichloroethane	9.8	10.0	98.0%	9.9	10.0	99.0%	1.0%
trans-1,2-Dichloroethene	9.9	10.0	99.0%	9.9	10.0	99.0%	0.0%
cis-1,2-Dichloroethene	10.2	10.0	102%	10.0	10.0	100%	2.0%
Chloroform	9.8	10.0	98.0%	9.8	10.0	98.0%	0.0%
1,2-Dichloroethane	9.5	10.0	95.0%	9.7	10.0	97.0%	2.1%
2-Butanone	47.4	50.0	94.8%	47.7	50.0	95.4%	0.6%
1,1,1-Trichloroethane	9.9	10.0	99.0%	9.8	10.0	98.0%	1.0%
Carbon Tetrachloride	9.7	10.0	97.0%	9.7	10.0	97.0%	0.0%
Vinyl Acetate	9.1	10.0	91.0%	9.2	10.0	92.0%	1.1%
Bromodichloromethane	9.6	10.0	96.0%	9.7	10.0	97.0%	1.0%
1,2-Dichloropropane	9.4	10.0	94.0%	9.7	10.0	97.0%	3.1%
cis-1,3-Dichloropropene	10.1	10.0	101%	10.2	10.0	102%	1.0%
Trichloroethene	9.6	10.0	96.0%	9.6	10.0	96.0%	0.0%
Dibromochloromethane	9.7	10.0	97.0%	9.8	10.0	98.0%	1.0%
1,1,2-Trichloroethane	9.8	10.0	98.0%	9.8	10.0	98.0%	0.0%
Benzene	10.2	10.0	102%	10.3	10.0	103%	1.0%
trans-1,3-Dichloropropene	9.8	10.0	98.0%	10.0	10.0	100%	2.0%
2-Chloroethylvinylether	8.6	10.0	86.0%	8.7	10.0	87.0%	1.2%
Bromoform	10.1	10.0	101%	10.0	10.0	100%	1.0%
4-Methyl-2-Pentanone (MIBK)	50.6	50.0	101%	51.1	50.0	102%	1.0%
2-Hexanone	50.8	50.0	102%	51.4	50.0	103%	1.2%
Tetrachloroethene	9.4	10.0	94.0%	9.5	10.0	95.0%	1.1%
1,1,2,2-Tetrachloroethane	9.8	10.0	98.0%	9.6	10.0	96.0%	2.1%
Toluene	10.0	10.0	100%	10.1	10.0	101%	1.0%
Chlorobenzene	10.2	10.0	102%	10.2	10.0	102%	0.0%
Ethylbenzene	10.2	10.0	102%	10.2	10.0	102%	0.0%
Styrene	11.2	10.0	112%	11.3	10.0	113%	0.9%
Trichlorofluoromethane	9.8	10.0	98.0%	10.0	10.0	100%	2.0%
1,1,2-Trichloro-1,2,2-trifluoroethane	10.2	10.0	102%	9.7	10.0	97.0%	5.0%
m,p-Xylene	21.6	20.0	108%	21.6	20.0	108%	0.0%
o-Xylene	10.4	10.0	104%	10.3	10.0	103%	1.0%
1,2-Dichlorobenzene	10.3	10.0	103%	10.1	10.0	101%	2.0%
1,3-Dichlorobenzene	10.3	10.0	103%	10.3	10.0	103%	0.0%
1,4-Dichlorobenzene	10.3	10.0	103%	10.3	10.0	103%	0.0%
Acrolein	58.8	50.0	118%	59.4	50.0	119%	1.0%
Methyl Iodide	13.0	10.0	130%	13.1	10.0	131%	0.8%
Bromoethane	11.1	10.0	111%	10.6	10.0	106%	4.6%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Page 2 of 2

Sample ID: LCS-013011

LAB CONTROL SAMPLE

Lab Sample ID: LCS-013011

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1696

Project: Striker

Matrix: Water

025195.003.032

Analyte	LCS			LCSD			RPD
	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	
Acrylonitrile	8.8	10.0	88.0%	8.8	10.0	88.0%	0.0%
1,1-Dichloropropene	9.9	10.0	99.0%	10.0	10.0	100%	1.0%
Dibromomethane	9.5	10.0	95.0%	9.5	10.0	95.0%	0.0%
1,1,1,2-Tetrachloroethane	10.0	10.0	100%	10.0	10.0	100%	0.0%
1,2-Dibromo-3-chloropropane	8.6	10.0	86.0%	9.0	10.0	90.0%	4.5%
1,2,3-Trichloropropane	9.7	10.0	97.0%	9.8	10.0	98.0%	1.0%
trans-1,4-Dichloro-2-butene	10.8	10.0	108%	10.8	10.0	108%	0.0%
1,3,5-Trimethylbenzene	11.0	10.0	110%	10.9	10.0	109%	0.9%
1,2,4-Trimethylbenzene	11.1	10.0	111%	11.1	10.0	111%	0.0%
Hexachlorobutadiene	9.4	10.0	94.0%	9.5	10.0	95.0%	1.1%
Ethylene Dibromide	9.7	10.0	97.0%	9.7	10.0	97.0%	0.0%
Bromochloromethane	10.1	10.0	101%	10.1	10.0	101%	0.0%
2,2-Dichloropropane	9.7	10.0	97.0%	9.6	10.0	96.0%	1.0%
1,3-Dichloropropane	9.6	10.0	96.0%	9.7	10.0	97.0%	1.0%
Isopropylbenzene	11.0	10.0	110%	11.0	10.0	110%	0.0%
n-Propylbenzene	10.8	10.0	108%	10.7	10.0	107%	0.9%
Bromobenzene	10.0	10.0	100%	9.9	10.0	99.0%	1.0%
2-Chlorotoluene	10.6	10.0	106%	10.6	10.0	106%	0.0%
4-Chlorotoluene	10.9	10.0	109%	10.8	10.0	108%	0.9%
tert-Butylbenzene	10.7	10.0	107%	10.7	10.0	107%	0.0%
sec-Butylbenzene	11.0	10.0	110%	11.0	10.0	110%	0.0%
4-Isopropyltoluene	11.1	10.0	111%	11.1	10.0	111%	0.0%
n-Butylbenzene	10.8	10.0	108%	10.9	10.0	109%	0.9%
1,2,4-Trichlorobenzene	9.6	10.0	96.0%	9.8	10.0	98.0%	2.1%
Naphthalene	10.1	10.0	101%	10.2	10.0	102%	1.0%
1,2,3-Trichlorobenzene	10.0	10.0	100%	10.2	10.0	102%	2.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	96.6%	95.2%
d8-Toluene	98.0%	98.3%
Bromofluorobenzene	96.1%	97.5%
d4-1,2-Dichlorobenzene	96.9%	96.4%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: MB-013011
METHOD BLANK

Lab Sample ID: MB-013011
LIMS ID: 11-1696
Matrix: Water
Data Release Authorized: *MMW*
Reported: 02/02/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PAB
Date Analyzed: 01/30/11 13:14

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: MB-013011
METHOD BLANK

Lab Sample ID: MB-013011
LIMS ID: 11-1696
Matrix: Water
Date Analyzed: 01/30/11 13:14

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

CAS Number	Analyte	RL	Result	Q
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
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	97.9%
d8-Toluene	96.3%
Bromofluorobenzene	93.6%
d4-1,2-Dichlorobenzene	98.5%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 2

Sample ID: MB-012811
METHOD BLANK

Lab Sample ID: MB-012811

QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1708

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: *WW*

Date Sampled: NA

Reported: 02/02/11

Date Received: NA

Instrument/Analyst: NT5/PAB

Sample Amount: 10.0 mL

Date Analyzed: 01/28/11 11:14

Purge Volume: 10.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.5	< 0.5	U
74-83-9	Bromomethane	1.0	< 1.0	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	5.0	< 5.0	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	5.0	< 5.0	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)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 2 of 2

Sample ID: MB-012811
METHOD BLANK

Lab Sample ID: MB-012811
LIMS ID: 11-1708
Matrix: Water
Date Analyzed: 01/28/11 11:14

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

CAS Number	Analyte	RL	Result	Q
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
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	109%
d8-Toluene	99.8%
Bromofluorobenzene	98.0%
d4-1,2-Dichlorobenzene	96.0%

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water


QC Report No: SG42-Landau Associates, Inc.

Project: Striker

Event: 025195.003.032

Date Sampled: 01/26/11

Date Received: 01/26/11

Data Release Authorized: 

Reported: 02/07/11

ARI ID	Client ID	Analysis Date	DL	Range	Result
MB-020211 11-1697	Method Blank	02/02/11 PID2	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.10 U --- 94.4% 94.4%
SG42E 11-1697	KSC-DP-22-GW-110126	02/02/11 PID2	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.10 U --- 98.5% 96.9%
SG42F 11-1698	KSC-DP-23-GW-110126	02/02/11 PID2	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.10 U --- 99.6% 96.3%
SG42G 11-1699	KSC-DP-24-GW-110126	02/02/11 PID2	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	0.35 GRO 97.7% 94.3%
SG42H 11-1700	KSC-DP-25b-GW-110126	02/02/11 PID2	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	0.38 GRO 98.2% 94.8%
SG42P 11-1708	TB	02/02/11 PID2	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.10 U --- 101% 98.8%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: SG42
Matrix: Water

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
Event: 025195.003.032

<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
MB-020211	94.4%	94.4%	0
LCS-020211	98.2%	99.9%	0
LCSD-020211	98.5%	98.9%	0
KSC-DP-22-GW-11012	98.5%	96.9%	0
KSC-DP-23-GW-11012	99.6%	96.3%	0
KSC-DP-24-GW-11012	97.7%	94.3%	0
KSC-DP-25b-GW-1101	98.2%	94.8%	0
TB	101%	98.8%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 11-1697 to 11-1708

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-020211
LAB CONTROL SAMPLE

Lab Sample ID: LCS-020211
LIMS ID: 11-1697
Matrix: Water
Data Release Authorized: *AS*
Reported: 02/07/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
Event: 025195.003.032
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 02/02/11 06:37
LCSD: 02/02/11 07:05
Instrument/Analyst LCS: PID2/MH
LCSD: PID2/MH

Purge Volume: 5.0 mL

Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	1.00	1.00	100%	0.99	1.00	99.0%	1.0%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	98.2%	98.5%
Bromobenzene	99.9%	98.9%

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water


QC Report No: SG42-Landau Associates, Inc.

Project: Striker

Event: 025195.003.032

Date Sampled: 01/26/11

Date Received: 01/26/11

Data Release Authorized: 
Reported: 02/08/11

ARI ID	Client ID	Analysis Date	DL	Range	Result
SG42P	TB	02/02/11	1.0	Gasoline	< 0.10 U
11-1708		PID2		HC ID	---
				Trifluorotoluene	101%
				Bromobenzene	98.8%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: SG42
Matrix: Water

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
Event: 025195.003.032

<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
TB	101%	98.8%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 11-1708 to 11-1708

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Soil


QC Report No: SG42-Landau Associates, Inc.

Project: Striker

Event: 025195.003.032

Date Sampled: 01/26/11

Date Received: 01/26/11

Data Release Authorized: 

Reported: 02/08/11

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-020211 11-1706	Method Blank	02/02/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.0 U --- 94.4% 94.4%
SG42N 11-1706	KSC-DP-25b-S-4.5-5-110126	02/02/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	56 GRO 98.9% 108%
SG42O 11-1707	KSC-DP-24-S-6-7-110126	02/02/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	790 GRO 95.1% 110%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: SG42
Matrix: Soil

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
Event: 025195.003.032

<u>Client ID</u>	<u>BFB</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT</u>	<u>OUT</u>
MB-020211	NA	94.4%	94.4%	0	
LCS-020211	NA	98.2%	99.9%	0	
LCSD-020211	NA	98.5%	98.9%	0	
KSC-DP-25b-S-4.5-5-1101	NA	98.9%	108%	0	
KSC-DP-24-S-6-7-110126	NA	95.1%	110%	0	

	LCS/MB LIMITS	QC LIMITS
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 11-1706 to 11-1707

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Page 1 of 1


Sample ID: LCS-020211

LAB CONTROL SAMPLE

Lab Sample ID: LCS-020211

LIMS ID: 11-1706

Matrix: Soil

Data Release Authorized: 

Reported: 02/08/11

QC Report No: SG42-Landau Associates, Inc.

Project: Striker

Event: 025195.003.032

Date Sampled: NA

Date Received: NA

Date Analyzed LCS: 02/02/11 06:37

Purge Volume: 5.0 mL

LCSD: 02/02/11 07:05

Instrument/Analyst LCS: PID2/MH

Sample Amount LCS: 100 mg-dry-wt

LCSD: PID2/MH

LCSD: 100 mg-dry-wt

Analyte	LCS	Spike	LCS	LCSD	Spike	LCSD	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
Gasoline Range Hydrocarbons	50.2	50.0	100%	49.5	50.0	99.0%	1.4%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	98.2%	98.5%
Bromobenzene	99.9%	98.9%

**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: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

Data Release Authorized: *MS*
Reported: 02/02/11

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-012811 11-1697	Method Blank HC ID: ---	01/28/11	02/01/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.20	< 0.10 U < 0.20 U 79.8%
SG42E 11-1697	KSC-DP-22-GW-110126 HC ID: ---	01/28/11	02/02/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.11 0.22	< 0.11 U < 0.22 U 84.7%
SG42F 11-1698	KSC-DP-23-GW-110126 HC ID: ---	01/28/11	02/02/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.10 0.21	< 0.10 U < 0.21 U 77.6%
SG42G 11-1699	KSC-DP-24-GW-110126 HC ID: ---	01/28/11	02/02/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.11 0.21	< 0.11 U < 0.21 U 74.7%
SG42H 11-1700	KSC-DP-25b-GW-110126 HC ID: DIESEL	01/28/11	02/02/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	0.11 0.21	0.20 < 0.21 U 78.5%

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.

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-012811	79.8%	0
LCS-012811	83.3%	0
LCSD-012811	83.4%	0
KSC-DP-22-GW-110126	84.7%	0
KSC-DP-23-GW-110126	77.6%	0
KSC-DP-24-GW-110126	74.7%	0
KSC-DP-25b-GW-110126	78.5%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(53-123)

(49-118)

Prep Method: SW3510C
Log Number Range: 11-1697 to 11-1700

ORGANICS ANALYSIS DATA SHEET
 NWTPHD by GC/FID-Silica and Acid Cleaned
 Page 1 of 1

Sample ID: LCS-012811
 LCS/LCSD

Lab Sample ID: LCS-012811
 LIMS ID: 11-1697
 Matrix: Water
 Data Release Authorized:
 Reported: 02/02/11

QC Report No: SG42-Landau Associates, Inc.
 Project: Striker
 025195.003.032
 Date Sampled: 01/26/11
 Date Received: 01/26/11

Date Extracted LCS/LCSD: 01/28/11

Sample Amount LCS: 500 mL
 LCSD: 500 mL

Date Analyzed LCS: 02/01/11 20:37

Final Extract Volume LCS: 1.0 mL

LCSD: 02/01/11 20:59

LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS

Dilution Factor LCS: 1.00

LCSD: FID/MS

LCSD: 1.00

Range	LCS	Spike	LCS	LCSD	Spike	LCSD	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
Diesel	2.26	3.00	75.3%	2.21	3.00	73.7%	2.2%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	83.3%	83.4%

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

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Water
Date Received: 01/26/11


ARI Job: SG42
Project: Striker
025195.003.032

ARI ID	Client ID	Samp Amt	Final Vol	Prep Date
11-1697-012811MB1	Method Blank	500 mL	1.00 mL	01/28/11
11-1697-012811LCS1	Lab Control	500 mL	1.00 mL	01/28/11
11-1697-012811LCSD1	Lab Control Dup	500 mL	1.00 mL	01/28/11
11-1697-SG42E	KSC-DP-22-GW-110126	460 mL	1.00 mL	01/28/11
11-1698-SG42F	KSC-DP-23-GW-110126	480 mL	1.00 mL	01/28/11
11-1699-SG42G	KSC-DP-24-GW-110126	470 mL	1.00 mL	01/28/11
11-1700-SG42H	KSC-DP-25b-GW-110126	470 mL	1.00 mL	01/28/11

**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: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

Data Release Authorized: 
Reported: 02/03/11

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-012811 11-1706	Method Blank HC ID: ---	01/28/11	01/31/11 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 99.6%
SG42N 11-1706	KSC-DP-25b-S-4.5-5-1101/28/11 HC ID: DIESEL/MOTOR OIL	02/01/11	02/01/11 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.9 12	670 E 43 NR
SG42N DL 11-1706	KSC-DP-25b-S-4.5-5-1101/28/11 HC ID: DIESEL	02/02/11	02/02/11 FID9	1.00 5.0	Diesel Motor Oil o-Terphenyl	29 59	560 < 59 U 72.4%
SG42O 11-1707	KSC-DP-24-S-6-7-1101201/28/11 HC ID: DIESEL	02/01/11	02/01/11 FID4A	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.7 11	7.0 < 11 U 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.

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-012811	99.6%	0
LCS-012811	98.2%	0
LCSD-012811	102%	0
KSC-DP-25b-S-4.5-5	NR	0
KSC-DP-25b-S-4.5-5 DL	72.4%	0
KSC-DP-24-S-6-7-11	97.3%	0

LCS/MB LIMITS QC LIMITS

(OTER) = o-Terphenyl

(59-134)

(43-137)

Prep Method: SW3546
Log Number Range: 11-1706 to 11-1707

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned

Page 1 of 1

Sample ID: LCS-012811

LCS/LCSD

Lab Sample ID: LCS-012811

LIMS ID: 11-1706

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 02/11/11

QC Report No: SG42-Landau Associates, Inc.

Project: Striker

025195.003.032

Date Sampled: 01/26/11

Date Received: 01/26/11

Date Extracted LCS/LCSD: 01/28/11

Sample Amount LCS: 10.0 g

LCSD: 10.0 g

Date Analyzed LCS: 02/01/11 00:16

Final Extract Volume LCS: 1.0 mL

LCSD: 02/01/11 00:39

LCSD: 1.0 mL

Instrument/Analyst LCS: FID/MS

Dilution Factor LCS: 1.0

LCSD: FID/MS

LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	134	150	89.3%	146	150	97.3%	8.6%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	98.2%	102%

Results reported in mg/kg

RPD calculated using sample concentrations per SW846.

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT


Matrix: Soil
Date Received: 01/26/11

ARI Job: SG42
Project: Striker
025195.003.032

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
11-1706-012811MB1	Method Blank	10.0 g	1.00 mL	-	01/28/11
11-1706-012811LCS1	Lab Control	10.0 g	1.00 mL	-	01/28/11
11-1706-012811LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	01/28/11
11-1706-SG42N	KSC-DP-25b-S-4.5-5-8.522g		1.00 mL	D	01/28/11
11-1707-SG42O	KSC-DP-24-S-6-7-1108.82 g		1.00 mL	D	01/28/11

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-31-GW-110126
SAMPLE

Lab Sample ID: SG42A
LIMS ID: 11-1693
Matrix: Water
Data Release Authorized: 
Reported: 02/03/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: 01/26/11
Date Received: 01/26/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	65.4	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-32-GW-110126
SAMPLE

Lab Sample ID: SG42B


QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1694

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: 

Date Sampled: 01/26/11

Reported: 02/03/11


Date Received: 01/26/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	2.8	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-33-GW-110126
SAMPLE

Lab Sample ID: SG42C
LIMS ID: 11-1695
Matrix: Water
Data Release Authorized: 
Reported: 02/03/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: 01/26/11
Date Received: 01/26/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	0.3	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

DISSOLVED METALS

Page 1 of 1

Sample ID: KSC-DP-22-GW-110126

SAMPLE

Lab Sample ID: SG42E


QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1697

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized 

Date Sampled: 01/26/11

Reported: 02/03/11

Date Received: 01/26/11


Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	66.0	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-23-GW-110126
SAMPLE

Lab Sample ID: SG42F
LIMS ID: 11-1698
Matrix: Water
Data Release Authorized: 
Reported: 02/03/11

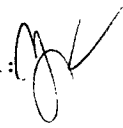
QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: 01/26/11
Date Received: 01/26/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	66.7	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-24-GW-110126
SAMPLE

Lab Sample ID: SG42G
LIMS ID: 11-1699
Matrix: Water
Data Release Authorized: 
Reported: 02/03/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: 01/26/11
Date Received: 01/26/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	2.7	

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: KSC-DP-25b-GW-110126
SAMPLE

Lab Sample ID: SG42H
LIMS ID: 11-1700
Matrix: Water
Data Release Authorized
Reported: 02/03/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: 01/26/11
Date Received: 01/26/11



Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	71.6	

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: SG42LCS


QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1693

Project: Striker

Matrix: Water

025195.003.032

Data Release Authorized: 

Date Sampled: NA

Reported: 02/03/11

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.0	25.0	100%	


Reported in $\mu\text{g/L}$

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: SG42MB
LIMS ID: 11-1693
Matrix: Water
Data Release Authorized: 
Reported: 02/03/11

QC Report No: SG42-Landau Associates, Inc.
Project: Striker
025195.003.032
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/01/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: KSC-DP-31-S-5-6-110126

SAMPLE

Lab Sample ID: SG42I


QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1701

Project: Striker

Matrix: Soil

025195.003.032

Data Release Authorized: 

Date Sampled: 01/26/11

Reported: 02/03/11

Date Received: 01/26/11

Percent Total Solids: 80.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/31/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	4.3	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: KSC-DP-32-S-3.5-4.5-110126
SAMPLE

Lab Sample ID: SG42J


QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1702

Project: Striker

Matrix: Soil

025195.003.032

Data Release Authorized: 

Date Sampled: 01/26/11

Reported: 02/03/11

Date Received: 01/26/11

Percent Total Solids: 79.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/31/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	7.7	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Sample ID: KSC-DP-33-S-1.5-2.5-110126
SAMPLE

Lab Sample ID: SG42K


QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1703

Project: Striker

Matrix: Soil

025195.003.032

Data Release Authorized: 

Date Sampled: 01/26/11

Reported: 02/03/11

Date Received: 01/26/11

Percent Total Solids: 70.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/31/11	200.8	02/02/11	7440-38-2	Arsenic	0.3	8.6	

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: SG42LCS

LIMS ID: 11-1701

Matrix: Soil

Data Release Authorized: 

Reported: 02/03/11

QC Report No: SG42-Landau Associates, Inc.

Project: Striker

025195.003.032

Date Sampled: NA

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	25.6	25.0	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: SG42MB


QC Report No: SG42-Landau Associates, Inc.

LIMS ID: 11-1701

Project: Striker

Matrix: Soil

025195.003.032

Data Release Authorized: 

Date Sampled: NA

Reported: 02/03/11

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/31/11	200.8	02/02/11	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL

RL-Reporting Limit



Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 18, 2011

Kathryn Hartley
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Striker, 025195.003.032
ARI Job: SJ32

Dear Kathryn,

Enclosed, please find the original and revised Chain-of-Custody (COC) records, sample receipt documentation, email documentation, and the final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted nine water samples, ten soil samples, and a trip blank on January 26, 2011 originally under sample delivery group (SDG) SG42. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms. Select samples were placed on hold pending further instructions. Per Landau Associates, samples were allowed to settle and sample volume was collected from the clear portion.

The samples were originally analyzed for Total and Dissolved Arsenic, VOCs, NWTPH-Gx, and NWTPH-Dx, as requested and reported under SG42.

On 2/16/11 at the request of Landau Associates, select samples were analyzed for NWTP-Gx outside of the method recommended holding time.

There were no analytical complications noted.

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

A handwritten signature in blue ink, appearing to read "Kelly Bottem".

Kelly Bottem
Client Services Manager
(206) 695-6211
kellyb@arilabs.com
www.arilabs.com



Cooler Receipt Form

ARI Client: Landau
 COC No(s): _____ (NA)
 Assigned ARI Job No: SG42

Project Name: Striker
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ NA

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
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 6.0 5.0
 If cooler temperature is out of compliance fill out form 00070F
 Cooler Accepted by: JM Date: 1/26/11 Time: 1650 Temp Gun ID#: 90941619

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA 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 the number of containers listed on COC match with the number of containers received? 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 sheet, excluding VOCs)... NA YES NO
 Were all VOC vials free of air bubbles? NA YES NO
 Was sufficient amount of sample sent in each bottle? YES NO
 Date VOC Trip Blank was made at ARI..... NA 1/26/11
 Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 1/27/11 Time: 1000

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
<u>KSC-DP-25B-GW-110126</u>	<u>KSC-DP-25b-GW-110126</u>		

Additional Notes, Discrepancies, & Resolutions:
KSC-DP-23-GW-110126 - sm in 1 of 2.
TB = sm in 2 of 2
2 - SOB1 preserved vials + 1 - HCl preserved vial received for samples KSC-DP-21-S-0-0.5-110126
KSC-DP-21-S-3-3.5-110126 + KSC-DP-21-S-2.5-3-110126
Cannot use HCl vial for analysis, should be preserved with MeOH.

By: JM Date: 1/27/11

Small Air Bubbles -2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
Small → "sm"	Peabubbles → "pb"	Large → "lg"
Headspace → "hs"		



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
-

added by KFH 1/28/11
 added by PRR 2/1/11

Date 1/26/2011
 Page 1 of 2

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>025195.003.032</u>					Testing Parameters					Turnaround Time	
Project Location/Event <u>Kent, WA / Phase II Supplemental</u>					Arsenic VOCs TPH-Dx TPH-G					<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/>	
Sampler's Name <u>PRR / SED</u>											
Project Contact <u>Tim Syverson, Kathryn Hartley, Joe Flaherty</u>											
Send Results To <u>" " " (Boeing)</u>											
* <u>Anne Halvorsen</u>											
Sample I.D.	Date	Time	Matrix	No. of Containers							Observations/Comments
KSC-DP-31-6W-110126	1/26/11	0920	H ₂ O	1	X						X Allow water samples to settle, collect aliquot from clear portion
KSC-DP-32-6W-110126		0955	H ₂ O	1	X						X NWTPH-Dx - run acid wash/silica gel cleanup
KSC-DP-33-6W-110126		1020	H ₂ O	1	X						
KSC-DP-21-6W-110126		1120	H ₂ O	3		X					
KSC-DP-31-S-5-6-110126		0850	Soil	1	X						run samples standardized to product
KSC-DP-32-S-3.5-4.5-110126		0910	Soil	1	X						Analyze for EPH if no specific product identified
KSC-DP-33-S-4.5-7.5-110126		0935	Soil	1	X						VOC/BTEX/VPH (soil):
KSC-DP-21-S-0-0.5-110126		1040	Soil	3		X					non-preserved
KSC-DP-21-S-3-3.5-110126		1045	Soil	3		X					preserved w/methanol
KSC-DP-21-S-2.5-3-110126		1050	Soil	3							preserved w/sodium bisulfate
KSC-DP-25b-5-4.5-5-110126		1310	Soil	4			X	X			Freeze upon receipt
KSC-DP-25b-5-7-8-110126		1315	Soil	4							Freeze upon receipt
KSC-DP-24-S-6-7-110126		1400	Soil	4			X	X			✓ Dissolved metal water samples field filtered
KSC-DP-24-S-8-9-110126		1405	Soil	3							Other Archive Samples not checked for analysis
KSC-DP-22-6W-110126		1515	H ₂ O	5	X		X	X			
KSC-DP-23-6W-110126		1540	H ₂ O	5	X		X	X			
KSC-DP-24-6W-110126		1430	H ₂ O	5	X		X	X			
KSC-DP-25b-6W-110126		1340	H ₂ O	5	X		X	X			
Special Shipment/Handling or Storage Requirements <u>on ice</u>					Method of Shipment <u>deliver to ARI</u>						
Relinquished by <u>[Signature]</u>			Received by <u>[Signature]</u>			Relinquished by			Received by		
Signature <u>Paul Rymaker</u>			Signature <u>Jennifer Millsap</u>			Signature			Signature		
Printed Name <u>Paul Rymaker</u>			Printed Name <u>Jennifer Millsap</u>			Printed Name			Printed Name		
Company <u>LA I</u>			Company <u>ARI</u>			Company			Company		
Date <u>1/26/11</u> Time <u>1650</u>			Date <u>1/26/11</u> Time <u>1650</u>			Date			Time		

2011
1/28/11

PRR
2/1/11



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- _____

Date 1/26/2011
Page 2 of 2

Chain-of-Custody Record

Project Name <u>Striker</u> Project No. <u>025195.032032</u>					Testing Parameters					Turnaround Time	
Project Location/Event <u>Kent, WA / Phase II Supplemental</u>					<div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;"> VOCs TPAIC </div>					<input type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input type="checkbox"/> _____	
Sampler's Name <u>RRR/SED</u>											
Project Contact <u>Tim Syversen, Kathryn Hartney, Joe Flaherty</u>											
Send Results To <u>"", "", "", Anna Helversen</u>											
Sample I.D.	Date	Time	Matrix	No. of Containers							Observations/Comments
<u>TB</u>	<u>1/26/11</u>			<u>2</u>	<u>X</u>						<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion <input checked="" type="checkbox"/> NWT/PH-Dx - 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 type="checkbox"/> Dissolved metal water samples field filtered Other _____
<u>PSC-09-25-GW-110126</u>	<u>1/26/11</u>	<u>1300</u>	<u>H₂O</u>	<u>5</u>							
Special Shipment/Handling or Storage Requirements <u>On ice</u>										Method of Shipment <u>Revised</u>	
Relinquished by			Received by			Relinquished by			Received by		
Signature <u>[Signature]</u>			Signature <u>[Signature]</u>			Signature _____			Signature _____		
Printed Name <u>Paul Ruyter</u>			Printed Name <u>Jennifer Millsap</u>			Printed Name _____			Printed Name _____		
Company <u>CAE</u>			Company <u>ART</u>			Company _____			Company _____		
Date <u>1/26/11</u> Time <u>1650</u>			Date <u>1/26/11</u> Time <u>1650</u>			Date _____ Time _____			Date _____ Time _____		

Sample ID Cross Reference Report



ARI Job No: SJ32
Client: The Boeing Company
Project Event: 025195.003.032
Project Name: Striker

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. KSC-DP-24-S-8-9-110126	SJ32A	11-3378	Soil	01/26/11 14:05	01/26/11 16:50

Printed 02/16/11

Subject: Additional Analysis for Boeing Striker
From: Paul Raymaker <praymaker@landauinc.com>
Date: Wed, 16 Feb 2011 13:21:07 -0800
To: Kelly Bottem <kellyb@arilabs.com>
CC: "Kathryn Hartley" <khartley@landauinc.com>

Kelly-

Attached is a revised COC from the Boeing Striker job. We are requesting sample KSC-DP-24-S-8-9-110126 be analyzed for TPH-G. We are aware that the sample is beyond hold time however we would still like it analyzed. Please let me know if you have any questions.

Thank you,

Paul Raymaker " Senior Staff Geologist
Landau Associates, Inc.

130 2nd Ave. S, Edmonds, WA 98020
425.778.0907 " fax 425.778.6409 " direct 425.329.0289
praymaker@landauinc.com " www.landauinc.com

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Content-Description: Striker_COC_012611_rev021611.pdf

Striker_COC_012611_rev021611.pdf **Content-Type:** application/pdf

Content-Encoding: base64

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Soil


QC Report No: SJ32-The Boeing Company

Project: Striker

Event: 025195.003.032

Date Sampled: 01/26/11

Date Received: 01/26/11

Data Release Authorized: 

Reported: 02/18/11

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-021711 11-3378	Method Blank	02/17/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.0 U --- 91.9% 90.5%
SJ32A 11-3378	KSC-DP-24-S-8-9-110126	02/17/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	23 GRO 98.5% 96.6%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: SJ32
Matrix: Soil

QC Report No: SJ32-The Boeing Company
Project: Striker
Event: 025195.003.032

<u>Client ID</u>	<u>BFB</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
MB-021711	NA	91.9%	90.5%	0
LCS-021711	NA	98.3%	98.5%	0
LCSD-021711	NA	92.0%	91.5%	0
KSC-DP-24-S-8-9-110126	NA	98.5%	96.6%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 11-3378 to 11-3378

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-021711
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021711
LIMS ID: 11-3378
Matrix: Soil
Data Release Authorized: *AS*
Reported: 02/18/11

QC Report No: SJ32-The Boeing Company
Project: Striker
Event: 025195.003.032
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 02/17/11 07:03
LCSD: 02/17/11 07:32
Instrument/Analyst LCS: PID2/MH
LCSD: PID2/MH

Purge Volume: 5.0 mL
Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	47.0	50.0	94.0%	42.4	50.0	84.8%	10.3%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	98.3%	92.0%
Bromobenzene	98.5%	91.5%



Analytical Resources, Incorporated

Analytical Chemists and Consultants

May 31, 2011

Tim Syverson
Landau Associates
130 Second Avenue South
Edmonds, WA 98020

RE: Project: Boeing Space Center 025195.004
ARI Job: SX92

Dear Tim,

Enclosed, please find the original and revised Chain-of-Custody (COC) records, sample receipt documentation, email documentation, and the final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted nine soil samples and three water samples and a trip blank on May 20, 2011 under sample delivery group (SDG) SX92. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Forms. Select samples were placed on hold pending further instructions. Select samples were placed on hold pending further instructions.

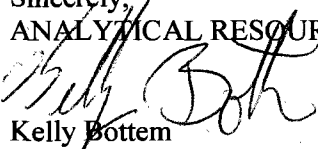
The samples were analyzed for EPH, VPH, VOCs, NWTPH-Gx, PAHs, Total Metals and NWTPH-Dx, as requested on the COC.

The VOCs 5/24/11 CCAL is out of control high for Methyl Iodide. All associated samples that contain analyte have been flagged with a "Q" qualifier.

There were no other analytical complications noted.

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
www.arilabs.com



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
-

SK92

Date 5/20/11

Page 1 of 1

Chain-of-Custody Record

Project Name <u>Boeing Spine Canal - Area 11 West</u> Project No. <u>025195.004</u> Project Location/Event <u>KEST, WA / ADDITIONAL INVESTIGATION</u> Sampler's Name <u>Dylan Frater</u> Project Contact <u>Tim Swanson</u> Send Results To <u>Tim Swanson, Julie Halverson</u>					Testing Parameters										Turnaround Time <input type="checkbox"/> Standard <input type="checkbox"/> Accelerated <input checked="" type="checkbox"/> <u>48 HR</u>	
Sample I.D.	Date	Time	Matrix	No. of Containers	TPH-G*	TPH-D*	EPH	VPH	VOCs	MTBE	PAHs	LEAD*	ARCHIVE	Observations/Comments		
KSC-DP-24a-S-2-3-110520	5/20/11	0955	Soil	10									X	X Allow water samples to settle, collect aliquot from clear portion		
KSC-DP-24a-S-6-7-110520		0945	Soil	10	X	X	X	X	X	X	X	X				
KSC-DP-24a-S-9-10-110520		0925	Soil	10	X	X	X	X	X	X	X	X		X NWTPH-Dx - run acid wash/silica gel cleanup		
KSC-DP-24c-S-1-2-110520		1025	Soil	10									X			
KSC-DP-24c-S-8-9-110520		1040	Soil	10									X	run samples standardized to _____ product		
KSC-DP-24c-GW-110520		1115	H ₂ O	14									X	Analyze for EPH if no specific product identified		
KSC-DP-24d-S-2-3-110520		1210	Soil	10									X	VOC/BTEX/VPH (soil): non-preserved X preserved w/methanol X preserved w/sodium bisulfate Freeze upon receipt		
KSC-DP-24d-S-8-5-9-5-110520		1225	Soil	10									X			
KSC-DP-24d-GW-110520		1250	H ₂ O	14									X			
KSC-DP-24b-S-9-10-110520		1330	Soil	10									X			
KSC-DP-24b-S-11-12-110520		1345	Soil	10									X			
KSC-DP-24b-GW-110520		1415	H ₂ O	14									X	Freeze upon receipt		
TRIP BLANKS	n/a	-/a	H ₂ O	2	X				X					X Dissolved metal water samples field filtered		
														Other <u>* Dissolved Lead in H₂O (Field Filtered)</u>		

Special Shipment/Handling or Storage Requirements <u>ON ICE</u>		Method of Shipment <u>DROP OFF AT LAB</u>	
Relinquished by Signature <u>[Signature]</u> Printed Name <u>Dylan Frater</u> Company <u>LANDAU</u> Date <u>5/20/11</u> Time <u>1730</u>		Received by Signature <u>[Signature]</u> Printed Name <u>A. Vobardsen</u> Company <u>ARU</u> Date <u>5/20/11</u> Time <u>1730</u>	
Relinquished by Signature _____ Printed Name _____ Company _____ Date _____ Time _____		Received by Signature _____ Printed Name _____ Company _____ Date _____ Time _____	



Cooler Receipt Form

ARI Client: Boeing

Project Name: Space Center

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: SX92

Tracking No: _____ (NA)

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 3.5 3.4 14.8

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619

Cooler Accepted by: AV Date: 5/20/11 Time: 17:30

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? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA (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 the number of containers listed on COC match with the number of containers received? (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 sheet, excluding VOCs)... (NA) YES NO

Were all VOC vials free of air bubbles? NA (YES) NO

Was sufficient amount of sample sent in each bottle? (YES) NO

Date VOC Trip Blank was made at ARI..... NA 5/19/11

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: AV Date: 5/21/11 Time: 8:35

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Samples on this job came out of in temp compliance coolers.

By: AV Date: 5/21/11

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Sample ID Cross Reference Report



ARI Job No: SX92
Client: The Boeing Company
Project Event: 025195.004
Project Name: Boeing Space Center

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. KSC-DP-24a-S-6-7-110520	SX92A	11-11455	Soil	05/20/11 09:45	05/20/11 17:30
2. KSC-DP-24a-S-9-10-110520	SX92B	11-11456	Soil	05/20/11 09:25	05/20/11 17:30
3. KSC-DP-24a-S-6-7-110520	SX92C	11-11457	Soil	05/20/11 09:45	05/20/11 17:30
4. KSC-DP-24a-S-9-10-110520	SX92D	11-11458	Soil	05/20/11 09:25	05/20/11 17:30
5. Trip Blanks	SX92E	11-11459	Water	05/20/11	05/20/11 17:30

Printed 05/21/11

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-24a-S-6-7-110520

Page 1 of 2

SAMPLE

Lab Sample ID: SX92A


QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized: 

Date Sampled: 05/20/11

Reported: 05/25/11

Date Received: 05/20/11

Instrument/Analyst: FINN5/PAB

Sample Amount: 4.71 g-dry-wt

Date Analyzed: 05/24/11 22:11

Purge Volume: 5.0 mL

Moisture: 16.2%

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	18	
67-64-1	Acetone	5.3	39	
75-15-0	Carbon Disulfide	1.1	1.1	
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	1.9	
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	1.3	
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	67	
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
179601-23-1	m,p-Xylene	1.1	99	
95-47-6	o-Xylene	1.1	9.6	
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	53	< 53	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

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Sample ID: KSC-DP-24a-S-6-7-110520

SAMPLE

Lab Sample ID: SX92A

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Date Analyzed: 05/24/11 22:11

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.1	< 1.1	U
74-96-4	Bromoethane	2.1	< 2.1	U
107-13-1	Acrylonitrile	5.3	< 5.3	U
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	5.3	< 5.3	U
96-18-4	1,2,3-Trichloropropane	2.1	< 2.1	U
110-57-6	trans-1,4-Dichloro-2-butene	5.3	< 5.3	U
108-67-8	1,3,5-Trimethylbenzene	1.1	48	
95-63-6	1,2,4-Trimethylbenzene	1.1	250	ES
87-68-3	Hexachlorobutadiene	5.3	< 5.3	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	26	
103-65-1	n-Propylbenzene	1.1	57	
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	15	
99-87-6	4-Isopropyltoluene	1.1	14	
104-51-8	n-Butylbenzene	1.1	42	M
120-82-1	1,2,4-Trichlorobenzene	5.3	< 5.3	U
91-20-3	Naphthalene	5.3	260	E
87-61-6	1,2,3-Trichlorobenzene	5.3	< 5.3	U
1634-04-4	Methyl tert-Butyl Ether	1.1	< 1.1	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	114%
d8-Toluene	101%
Bromofluorobenzene	104%
d4-1,2-Dichlorobenzene	100%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-24a-S-6-7-110520

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REANALYSIS

Lab Sample ID: SX92A

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized:

Date Sampled: 05/20/11

Reported: 05/25/11

Date Received: 05/20/11

Instrument/Analyst: FINN5/PAB

Sample Amount: 70.7 mg-dry-wt

Date Analyzed: 05/25/11 11:37

Purge Volume: 5.0 mL

Moisture: 16.2%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	71	< 71	U
74-83-9	Bromomethane	71	< 71	U
75-01-4	Vinyl Chloride	71	< 71	U
75-00-3	Chloroethane	71	< 71	U
75-09-2	Methylene Chloride	140	< 140	U
67-64-1	Acetone	350	< 350	U
75-15-0	Carbon Disulfide	71	< 71	U
75-35-4	1,1-Dichloroethene	71	< 71	U
75-34-3	1,1-Dichloroethane	71	< 71	U
156-60-5	trans-1,2-Dichloroethene	71	< 71	U
156-59-2	cis-1,2-Dichloroethene	71	< 71	U
67-66-3	Chloroform	71	< 71	U
107-06-2	1,2-Dichloroethane	71	< 71	U
78-93-3	2-Butanone	350	< 350	U
71-55-6	1,1,1-Trichloroethane	71	< 71	U
56-23-5	Carbon Tetrachloride	71	< 71	U
108-05-4	Vinyl Acetate	350	< 350	U
75-27-4	Bromodichloromethane	71	< 71	U
78-87-5	1,2-Dichloropropane	71	< 71	U
10061-01-5	cis-1,3-Dichloropropene	71	< 71	U
79-01-6	Trichloroethene	71	< 71	U
124-48-1	Dibromochloromethane	71	< 71	U
79-00-5	1,1,2-Trichloroethane	71	< 71	U
71-43-2	Benzene	71	< 71	U
10061-02-6	trans-1,3-Dichloropropene	71	< 71	U
110-75-8	2-Chloroethylvinylether	350	< 350	U
75-25-2	Bromoform	71	< 71	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	350	< 350	U
591-78-6	2-Hexanone	350	< 350	U
127-18-4	Tetrachloroethene	71	< 71	U
79-34-5	1,1,2,2-Tetrachloroethane	71	< 71	U
108-88-3	Toluene	71	< 71	U
108-90-7	Chlorobenzene	71	< 71	U
100-41-4	Ethylbenzene	71	110	
100-42-5	Styrene	71	< 71	U
75-69-4	Trichlorofluoromethane	71	< 71	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	140	< 140	U
179601-23-1	m,p-Xylene	71	200	
95-47-6	o-Xylene	71	< 71	U
95-50-1	1,2-Dichlorobenzene	71	< 71	U
541-73-1	1,3-Dichlorobenzene	71	< 71	U
106-46-7	1,4-Dichlorobenzene	71	< 71	U
107-02-8	Acrolein	3,500	< 3,500	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-24a-S-6-7-110520

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REANALYSIS

Lab Sample ID: SX92A

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Date Analyzed: 05/25/11 11:37

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	71	< 71	U
74-96-4	Bromoethane	140	< 140	U
107-13-1	Acrylonitrile	350	< 350	U
563-58-6	1,1-Dichloropropene	71	< 71	U
74-95-3	Dibromomethane	71	< 71	U
630-20-6	1,1,1,2-Tetrachloroethane	71	< 71	U
96-12-8	1,2-Dibromo-3-chloropropane	350	< 350	U
96-18-4	1,2,3-Trichloropropane	140	< 140	U
110-57-6	trans-1,4-Dichloro-2-butene	350	< 350	U
108-67-8	1,3,5-Trimethylbenzene	71	85	
95-63-6	1,2,4-Trimethylbenzene	71	460	
87-68-3	Hexachlorobutadiene	350	< 350	U
106-93-4	Ethylene Dibromide	71	< 71	U
74-97-5	Bromochloromethane	71	< 71	U
594-20-7	2,2-Dichloropropane	71	< 71	U
142-28-9	1,3-Dichloropropane	71	< 71	U
98-82-8	Isopropylbenzene	71	< 71	U
103-65-1	n-Propylbenzene	71	88	
108-86-1	Bromobenzene	71	< 71	U
95-49-8	2-Chlorotoluene	71	< 71	U
106-43-4	4-Chlorotoluene	71	< 71	U
98-06-6	tert-Butylbenzene	71	< 71	U
135-98-8	sec-Butylbenzene	71	< 71	U
99-87-6	4-Isopropyltoluene	71	< 71	U
104-51-8	n-Butylbenzene	71	86	
120-82-1	1,2,4-Trichlorobenzene	350	< 350	U
91-20-3	Naphthalene	350	740	
87-61-6	1,2,3-Trichlorobenzene	350	< 350	U
1634-04-4	Methyl tert-Butyl Ether	71	< 71	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.9%
d8-Toluene	100%
Bromofluorobenzene	100%
d4-1,2-Dichlorobenzene	97.5%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-24a-S-9-10-110520

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SAMPLE

Lab Sample ID: SX92B

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11456

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized: *AB*

Date Sampled: 05/20/11

Reported: 05/25/11

Date Received: 05/20/11

Instrument/Analyst: FINN5/PAB

Sample Amount: 2.42 g-dry-wt

Date Analyzed: 05/24/11 22:38

Purge Volume: 5.0 mL

Moisture: 28.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	2.1	< 2.1	U
74-83-9	Bromomethane	2.1	< 2.1	U
75-01-4	Vinyl Chloride	2.1	< 2.1	U
75-00-3	Chloroethane	2.1	< 2.1	U
75-09-2	Methylene Chloride	4.1	32	
67-64-1	Acetone	10	75	
75-15-0	Carbon Disulfide	2.1	< 2.1	U
75-35-4	1,1-Dichloroethene	2.1	< 2.1	U
75-34-3	1,1-Dichloroethane	2.1	< 2.1	U
156-60-5	trans-1,2-Dichloroethene	2.1	< 2.1	U
156-59-2	cis-1,2-Dichloroethene	2.1	< 2.1	U
67-66-3	Chloroform	2.1	< 2.1	U
107-06-2	1,2-Dichloroethane	2.1	< 2.1	U
78-93-3	2-Butanone	10	10	
71-55-6	1,1,1-Trichloroethane	2.1	< 2.1	U
56-23-5	Carbon Tetrachloride	2.1	< 2.1	U
108-05-4	Vinyl Acetate	10	< 10	U
75-27-4	Bromodichloromethane	2.1	< 2.1	U
78-87-5	1,2-Dichloropropane	2.1	< 2.1	U
10061-01-5	cis-1,3-Dichloropropene	2.1	< 2.1	U
79-01-6	Trichloroethene	2.1	< 2.1	U
124-48-1	Dibromochloromethane	2.1	< 2.1	U
79-00-5	1,1,2-Trichloroethane	2.1	< 2.1	U
71-43-2	Benzene	2.1	7.4	
10061-02-6	trans-1,3-Dichloropropene	2.1	< 2.1	U
110-75-8	2-Chloroethylvinylether	10	< 10	U
75-25-2	Bromoform	2.1	< 2.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10	< 10	U
591-78-6	2-Hexanone	10	< 10	U
127-18-4	Tetrachloroethene	2.1	< 2.1	U
79-34-5	1,1,2,2-Tetrachloroethane	2.1	< 2.1	U
108-88-3	Toluene	2.1	< 2.1	U
108-90-7	Chlorobenzene	2.1	< 2.1	U
100-41-4	Ethylbenzene	2.1	390	
100-42-5	Styrene	2.1	< 2.1	U
75-69-4	Trichlorofluoromethane	2.1	< 2.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.1	< 4.1	U
179601-23-1	m,p-Xylene	2.1	580	S
95-47-6	o-Xylene	2.1	< 2.1	U
95-50-1	1,2-Dichlorobenzene	2.1	< 2.1	U
541-73-1	1,3-Dichlorobenzene	2.1	< 2.1	U
106-46-7	1,4-Dichlorobenzene	2.1	< 2.1	U
107-02-8	Acrolein	100	< 100	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

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Sample ID: KSC-DP-24a-S-9-10-110520

SAMPLE

Lab Sample ID: SX92B

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11456

Project: Boeing Space Center

Matrix: Soil

025195.004

Date Analyzed: 05/24/11 22:38

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	2.1	< 2.1	U
74-96-4	Bromoethane	4.1	< 4.1	U
107-13-1	Acrylonitrile	10	< 10	U
563-58-6	1,1-Dichloropropene	2.1	< 2.1	U
74-95-3	Dibromomethane	2.1	< 2.1	U
630-20-6	1,1,1,2-Tetrachloroethane	2.1	< 2.1	U
96-12-8	1,2-Dibromo-3-chloropropane	10	< 10	U
96-18-4	1,2,3-Trichloropropane	4.1	< 4.1	U
110-57-6	trans-1,4-Dichloro-2-butene	10	< 10	U
108-67-8	1,3,5-Trimethylbenzene	2.1	560	E
95-63-6	1,2,4-Trimethylbenzene	2.1	930	ES
87-68-3	Hexachlorobutadiene	10	< 10	U
106-93-4	Ethylene Dibromide	2.1	< 2.1	U
74-97-5	Bromochloromethane	2.1	< 2.1	U
594-20-7	2,2-Dichloropropane	2.1	< 2.1	U
142-28-9	1,3-Dichloropropane	2.1	< 2.1	U
98-82-8	Isopropylbenzene	2.1	250	
103-65-1	n-Propylbenzene	2.1	420	E
108-86-1	Bromobenzene	2.1	< 2.1	U
95-49-8	2-Chlorotoluene	2.1	< 2.1	U
106-43-4	4-Chlorotoluene	2.1	< 2.1	U
98-06-6	tert-Butylbenzene	2.1	< 2.1	U
135-98-8	sec-Butylbenzene	2.1	260	
99-87-6	4-Isopropyltoluene	2.1	230	
104-51-8	n-Butylbenzene	2.1	650	ES
120-82-1	1,2,4-Trichlorobenzene	10	< 10	U
91-20-3	Naphthalene	10	1,000	ES
87-61-6	1,2,3-Trichlorobenzene	10	< 10	U
1634-04-4	Methyl tert-Butyl Ether	2.1	< 2.1	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	106%
d8-Toluene	97.7%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	97.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-24a-S-9-10-110520

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REANALYSIS

Lab Sample ID: SX92B

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11456

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized: *AS*

Date Sampled: 05/20/11

Reported: 05/25/11

Date Received: 05/20/11

Instrument/Analyst: FINN5/PAB

Sample Amount: 14.8 mg-dry-wt

Date Analyzed: 05/25/11 12:05

Purge Volume: 5.0 mL

Moisture: 28.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	340	< 340	U
74-83-9	Bromomethane	340	< 340	U
75-01-4	Vinyl Chloride	340	< 340	U
75-00-3	Chloroethane	340	< 340	U
75-09-2	Methylene Chloride	670	< 670	U
67-64-1	Acetone	1,700	< 1,700	U
75-15-0	Carbon Disulfide	340	< 340	U
75-35-4	1,1-Dichloroethene	340	< 340	U
75-34-3	1,1-Dichloroethane	340	< 340	U
156-60-5	trans-1,2-Dichloroethene	340	< 340	U
156-59-2	cis-1,2-Dichloroethene	340	< 340	U
67-66-3	Chloroform	340	< 340	U
107-06-2	1,2-Dichloroethane	340	< 340	U
78-93-3	2-Butanone	1,700	< 1,700	U
71-55-6	1,1,1-Trichloroethane	340	< 340	U
56-23-5	Carbon Tetrachloride	340	< 340	U
108-05-4	Vinyl Acetate	1,700	< 1,700	U
75-27-4	Bromodichloromethane	340	< 340	U
78-87-5	1,2-Dichloropropane	340	< 340	U
10061-01-5	cis-1,3-Dichloropropene	340	< 340	U
79-01-6	Trichloroethene	340	< 340	U
124-48-1	Dibromochloromethane	340	< 340	U
79-00-5	1,1,2-Trichloroethane	340	< 340	U
71-43-2	Benzene	340	< 340	U
10061-02-6	trans-1,3-Dichloropropene	340	< 340	U
110-75-8	2-Chloroethylvinylether	1,700	< 1,700	U
75-25-2	Bromoform	340	< 340	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	1,700	< 1,700	U
591-78-6	2-Hexanone	1,700	< 1,700	U
127-18-4	Tetrachloroethene	340	< 340	U
79-34-5	1,1,2,2-Tetrachloroethane	340	< 340	U
108-88-3	Toluene	340	< 340	U
108-90-7	Chlorobenzene	340	< 340	U
100-41-4	Ethylbenzene	340	920	
100-42-5	Styrene	340	< 340	U
75-69-4	Trichlorofluoromethane	340	< 340	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	670	< 670	U
179601-23-1	m,p-Xylene	340	970	
95-47-6	o-Xylene	340	< 340	U
95-50-1	1,2-Dichlorobenzene	340	< 340	U
541-73-1	1,3-Dichlorobenzene	340	< 340	U
106-46-7	1,4-Dichlorobenzene	340	< 340	U
107-02-8	Acrolein	17,000	< 17,000	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: KSC-DP-24a-S-9-10-110520

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REANALYSIS

Lab Sample ID: SX92B

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11456

Project: Boeing Space Center

Matrix: Soil

025195.004

Date Analyzed: 05/25/11 12:05

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	340	< 340	U
74-96-4	Bromoethane	670	< 670	U
107-13-1	Acrylonitrile	1,700	< 1,700	U
563-58-6	1,1-Dichloropropene	340	< 340	U
74-95-3	Dibromomethane	340	< 340	U
630-20-6	1,1,1,2-Tetrachloroethane	340	< 340	U
96-12-8	1,2-Dibromo-3-chloropropane	1,700	< 1,700	U
96-18-4	1,2,3-Trichloropropane	670	< 670	U
110-57-6	trans-1,4-Dichloro-2-butene	1,700	< 1,700	U
108-67-8	1,3,5-Trimethylbenzene	340	1,900	
95-63-6	1,2,4-Trimethylbenzene	340	8,600	
87-68-3	Hexachlorobutadiene	1,700	< 1,700	U
106-93-4	Ethylene Dibromide	340	< 340	U
74-97-5	Bromochloromethane	340	< 340	U
594-20-7	2,2-Dichloropropane	340	< 340	U
142-28-9	1,3-Dichloropropane	340	< 340	U
98-82-8	Isopropylbenzene	340	490	
103-65-1	n-Propylbenzene	340	1,600	
108-86-1	Bromobenzene	340	< 340	U
95-49-8	2-Chlorotoluene	340	< 340	U
106-43-4	4-Chlorotoluene	340	< 340	U
98-06-6	tert-Butylbenzene	340	< 340	U
135-98-8	sec-Butylbenzene	340	840	
99-87-6	4-Isopropyltoluene	340	730	
104-51-8	n-Butylbenzene	340	3,400	
120-82-1	1,2,4-Trichlorobenzene	1,700	< 1,700	U
91-20-3	Naphthalene	1,700	9,200	
87-61-6	1,2,3-Trichlorobenzene	1,700	< 1,700	U
1634-04-4	Methyl tert-Butyl Ether	340	< 340	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	104%
d8-Toluene	102%
Bromofluorobenzene	104%
d4-1,2-Dichlorobenzene	99.3%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-052411

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METHOD BLANK

Lab Sample ID: MB-052411

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11456

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized: *AS*

Date Sampled: NA

Reported: 05/25/11

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 g-dry-wt

Date Analyzed: 05/24/11 18:06

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
179601-23-1	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

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-052411

Page 2 of 2

METHOD BLANK

Lab Sample ID: MB-052411

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11456

Project: Boeing Space Center

Matrix: Soil

025195.004

Date Analyzed: 05/24/11 18:06

CAS Number	Analyte	RL	Result	Q
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
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
1634-04-4	Methyl tert-Butyl Ether	1.0	< 1.0	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	101%
Bromofluorobenzene	98.3%
d4-1,2-Dichlorobenzene	98.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-052511

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-052511

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized: *[Signature]*

Date Sampled: NA

Reported: 05/25/11

Date Received: NA

Instrument/Analyst: FINN5/PAB

Sample Amount: 100 mg-dry-wt

Date Analyzed: 05/25/11 09:58

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	50	< 50	U
74-83-9	Bromomethane	50	< 50	U
75-01-4	Vinyl Chloride	50	< 50	U
75-00-3	Chloroethane	50	< 50	U
75-09-2	Methylene Chloride	100	< 100	U
67-64-1	Acetone	250	< 250	U
75-15-0	Carbon Disulfide	50	< 50	U
75-35-4	1,1-Dichloroethane	50	< 50	U
75-34-3	1,1-Dichloroethane	50	< 50	U
156-60-5	trans-1,2-Dichloroethane	50	< 50	U
156-59-2	cis-1,2-Dichloroethane	50	< 50	U
67-66-3	Chloroform	50	< 50	U
107-06-2	1,2-Dichloroethane	50	< 50	U
78-93-3	2-Butanone	250	< 250	U
71-55-6	1,1,1-Trichloroethane	50	< 50	U
56-23-5	Carbon Tetrachloride	50	< 50	U
108-05-4	Vinyl Acetate	250	< 250	U
75-27-4	Bromodichloromethane	50	< 50	U
78-87-5	1,2-Dichloropropane	50	< 50	U
10061-01-5	cis-1,3-Dichloropropene	50	< 50	U
79-01-6	Trichloroethene	50	< 50	U
124-48-1	Dibromochloromethane	50	< 50	U
79-00-5	1,1,2-Trichloroethane	50	< 50	U
71-43-2	Benzene	50	< 50	U
10061-02-6	trans-1,3-Dichloropropene	50	< 50	U
110-75-8	2-Chloroethylvinylether	250	< 250	U
75-25-2	Bromoform	50	< 50	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	250	< 250	U
591-78-6	2-Hexanone	250	< 250	U
127-18-4	Tetrachloroethene	50	< 50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	< 50	U
108-88-3	Toluene	50	< 50	U
108-90-7	Chlorobenzene	50	< 50	U
100-41-4	Ethylbenzene	50	< 50	U
100-42-5	Styrene	50	< 50	U
75-69-4	Trichlorofluoromethane	50	< 50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	100	< 100	U
179601-23-1	m,p-Xylene	50	< 50	U
95-47-6	o-Xylene	50	< 50	U
95-50-1	1,2-Dichlorobenzene	50	< 50	U
541-73-1	1,3-Dichlorobenzene	50	< 50	U
106-46-7	1,4-Dichlorobenzene	50	< 50	U
107-02-8	Acrolein	2,500	< 2,500	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: MB-052511

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METHOD BLANK

Lab Sample ID: MB-052511

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Date Analyzed: 05/25/11 09:58

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	50	< 50	U
74-96-4	Bromoethane	100	< 100	U
107-13-1	Acrylonitrile	250	< 250	U
563-58-6	1,1-Dichloropropene	50	< 50	U
74-95-3	Dibromomethane	50	< 50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	< 50	U
96-12-8	1,2-Dibromo-3-chloropropane	250	< 250	U
96-18-4	1,2,3-Trichloropropane	100	< 100	U
110-57-6	trans-1,4-Dichloro-2-butene	250	< 250	U
108-67-8	1,3,5-Trimethylbenzene	50	< 50	U
95-63-6	1,2,4-Trimethylbenzene	50	< 50	U
87-68-3	Hexachlorobutadiene	250	< 250	U
106-93-4	Ethylene Dibromide	50	< 50	U
74-97-5	Bromochloromethane	50	< 50	U
594-20-7	2,2-Dichloropropane	50	< 50	U
142-28-9	1,3-Dichloropropane	50	< 50	U
98-82-8	Isopropylbenzene	50	< 50	U
103-65-1	n-Propylbenzene	50	< 50	U
108-86-1	Bromobenzene	50	< 50	U
95-49-8	2-Chlorotoluene	50	< 50	U
106-43-4	4-Chlorotoluene	50	< 50	U
98-06-6	tert-Butylbenzene	50	< 50	U
135-98-8	sec-Butylbenzene	50	< 50	U
99-87-6	4-Isopropyltoluene	50	< 50	U
104-51-8	n-Butylbenzene	50	< 50	U
120-82-1	1,2,4-Trichlorobenzene	250	< 250	U
91-20-3	Naphthalene	250	< 250	U
87-61-6	1,2,3-Trichlorobenzene	250	< 250	U
1634-04-4	Methyl tert-Butyl Ether	50	< 50	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	98.5%
d8-Toluene	101%
Bromofluorobenzene	98.4%
d4-1,2-Dichlorobenzene	98.9%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

**Sample ID: Trip Blanks
SAMPLE**

Page 1 of 2

Lab Sample ID: SX92E

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11459

Project: Boeing Space Center

Matrix: Water

025195.004

Data Release Authorized: *AB*

Date Sampled: 05/20/11

Reported: 05/25/11

Date Received: 05/20/11

Instrument/Analyst: FINN5/PAB

Sample Amount: 5.00 mL

Date Analyzed: 05/24/11 18:33

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	10	< 10	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
179601-23-1	m,p-Xylene	2.0	< 2.0	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	10	< 10	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: Trip Blanks

Page 2 of 2

SAMPLE

Lab Sample ID: SX92E

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11459

Project: Boeing Space Center

Matrix: Water

025195.004

Date Analyzed: 05/24/11 18:33

CAS Number	Analyte	RL	Result	Q
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
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	5.0	< 5.0	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
1634-04-4	Methyl tert-Butyl Ether	1.0	< 1.0	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	105%
Bromofluorobenzene	99.9%
d4-1,2-Dichlorobenzene	98.5%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: SX92-The Boeing Company
 Project: Boeing Space Center
 025195.004

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-052511	Method Blank	Med	98.5%	101%	98.4%	98.9%	0
LCS-052511	Lab Control	Med	100%	103%	101%	100%	0
LCSD-052511	Lab Control Dup	Med	102%	104%	102%	102%	0
SX92A	KSC-DP-24a-S-6-7-110520	Low	114%	101%	104%	100%	0
SX92ARE	KSC-DP-24a-S-6-7-110520	Med	98.9%	100%	100%	97.5%	0
MB-052411	Method Blank	Low	102%	101%	98.3%	98.0%	0
LCS-052411	Lab Control	Low	102%	100%	101%	101%	0
LCSD-052411	Lab Control Dup	Low	102%	100%	99.5%	101%	0
SX92B	KSC-DP-24a-S-9-10-110520	Low	106%	97.7%	103%	97.0%	0
SX92BRE	KSC-DP-24a-S-9-10-110520	Med	104%	102%	104%	99.3%	0

LCS/MB LIMITS

QC LIMITS

SW8260C	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 11-11455 to 11-11456

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: SX92-The Boeing Company
 Project: Boeing Space Center
 025195.004

ARI ID	Client ID	FV	DCE	TOL	BFB	DCB	TOT OUT
SX92E	Trip Blanks	5	108%	105%	99.9%	98.5%	0

LCS/MB LIMITS

QC LIMITS

SW8260C

(DCE) = d4-1,2-Dichloroethane	80-122	80-125
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
 Log Number Range: 11-11459 to 11-11459

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-052411

Page 1 of 2

LAB CONTROL SAMPLE

Lab Sample ID: LCS-052411

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11456

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized: *[Signature]*

Date Sampled: NA

Reported: 05/25/11

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: 05/24/11 16:45

Purge Volume LCS: 5.0 mL

LCS: 05/24/11 17:12

LCS: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	Spike Added-LCS	LCS Recovery	RPD
Chloromethane	44.5	50.0	89.0%	47.7	50.0	95.4%	6.9%
Bromomethane	50.4	50.0	101%	54.2	50.0	108%	7.3%
Vinyl Chloride	51.0	50.0	102%	54.8	50.0	110%	7.2%
Chloroethane	51.5	50.0	103%	50.4	50.0	101%	2.2%
Methylene Chloride	45.6	50.0	91.2%	47.2	50.0	94.4%	3.4%
Acetone	238	250	95.2%	230	250	92.0%	3.4%
Carbon Disulfide	46.5	50.0	93.0%	50.6	50.0	101%	8.4%
1,1-Dichloroethene	45.9	50.0	91.8%	49.8	50.0	99.6%	8.2%
1,1-Dichloroethane	47.0	50.0	94.0%	50.9	50.0	102%	8.0%
trans-1,2-Dichloroethene	46.1	50.0	92.2%	49.5	50.0	99.0%	7.1%
cis-1,2-Dichloroethene	46.7	50.0	93.4%	50.9	50.0	102%	8.6%
Chloroform	47.2	50.0	94.4%	50.0	50.0	100%	5.8%
1,2-Dichloroethane	49.2	50.0	98.4%	50.4	50.0	101%	2.4%
2-Butanone	261	250	104%	262	250	105%	0.4%
1,1,1-Trichloroethane	45.4	50.0	90.8%	50.3	50.0	101%	10.2%
Carbon Tetrachloride	45.7	50.0	91.4%	49.6	50.0	99.2%	8.2%
Vinyl Acetate	44.3	50.0	88.6%	49.0	50.0	98.0%	10.1%
Bromodichloromethane	47.5	50.0	95.0%	50.4	50.0	101%	5.9%
1,2-Dichloropropane	49.0	50.0	98.0%	50.6	50.0	101%	3.2%
cis-1,3-Dichloropropene	48.8	50.0	97.6%	51.0	50.0	102%	4.4%
Trichloroethene	47.8	50.0	95.6%	51.2	50.0	102%	6.9%
Dibromochloromethane	48.8	50.0	97.6%	49.7	50.0	99.4%	1.8%
1,1,2-Trichloroethane	49.2	50.0	98.4%	50.2	50.0	100%	2.0%
Benzene	47.6	50.0	95.2%	50.6	50.0	101%	6.1%
trans-1,3-Dichloropropene	49.9	50.0	99.8%	52.4	50.0	105%	4.9%
2-Chloroethylvinylether	48.6	50.0	97.2%	47.8	50.0	95.6%	1.7%
Bromoform	50.0	50.0	100%	50.6	50.0	101%	1.2%
4-Methyl-2-Pentanone (MIBK)	264	250	106%	266	250	106%	0.8%
2-Hexanone	270	250	108%	266	250	106%	1.5%
Tetrachloroethene	46.2	50.0	92.4%	50.3	50.0	101%	8.5%
1,1,2,2-Tetrachloroethane	50.6	50.0	101%	50.2	50.0	100%	0.8%
Toluene	46.7	50.0	93.4%	50.9	50.0	102%	8.6%
Chlorobenzene	48.4	50.0	96.8%	50.5	50.0	101%	4.2%
Ethylbenzene	49.1	50.0	98.2%	52.1	50.0	104%	5.9%
Styrene	48.8	50.0	97.6%	50.1	50.0	100%	2.6%
Trichlorofluoromethane	48.3	50.0	96.6%	52.8	50.0	106%	8.9%
1,1,2-Trichloro-1,2,2-trifluoroethane	47.8	50.0	95.6%	51.4	50.0	103%	7.3%
m,p-Xylene	96.7	100	96.7%	102	100	102%	5.3%
o-Xylene	47.7	50.0	95.4%	50.0	50.0	100%	4.7%
1,2-Dichlorobenzene	49.0	50.0	98.0%	49.9	50.0	99.8%	1.8%
1,3-Dichlorobenzene	49.0	50.0	98.0%	50.3	50.0	101%	2.6%
1,4-Dichlorobenzene	49.4	50.0	98.8%	50.5	50.0	101%	2.2%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-052411

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-052411
LIMS ID: 11-11456
Matrix: Soil

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
025195.004

Analyte	Spike		LCS		LCSD		RPD
	LCS	Added-LCS	Recovery	LCS	Added-LCSD	Recovery	
Acrolein	282	250	113%	270	250	108%	4.3%
Methyl Iodide	55.1 Q	50.0	110%	58.9 Q	50.0	118%	6.7%
Bromoethane	46.9	50.0	93.8%	49.8	50.0	99.6%	6.0%
Acrylonitrile	52.4	50.0	105%	50.7	50.0	101%	3.3%
1,1-Dichloropropene	48.0	50.0	96.0%	51.8	50.0	104%	7.6%
Dibromomethane	48.0	50.0	96.0%	50.3	50.0	101%	4.7%
1,1,1,2-Tetrachloroethane	47.2	50.0	94.4%	49.3	50.0	98.6%	4.4%
1,2-Dibromo-3-chloropropane	51.2	50.0	102%	49.8	50.0	99.6%	2.8%
1,2,3-Trichloropropane	51.6	50.0	103%	51.4	50.0	103%	0.4%
trans-1,4-Dichloro-2-butene	54.1	50.0	108%	52.3	50.0	105%	3.4%
1,3,5-Trimethylbenzene	49.6	50.0	99.2%	52.6	50.0	105%	5.9%
1,2,4-Trimethylbenzene	50.6	50.0	101%	52.3	50.0	105%	3.3%
Hexachlorobutadiene	47.7	50.0	95.4%	50.0	50.0	100%	4.7%
Ethylene Dibromide	49.7	50.0	99.4%	50.5	50.0	101%	1.6%
Bromochloromethane	47.9	50.0	95.8%	50.3	50.0	101%	4.9%
2,2-Dichloropropane	46.6	50.0	93.2%	51.4	50.0	103%	9.8%
1,3-Dichloropropane	49.3	50.0	98.6%	51.2	50.0	102%	3.8%
Isopropylbenzene	49.5	50.0	99.0%	53.2	50.0	106%	7.2%
n-Propylbenzene	52.1	50.0	104%	55.2	50.0	110%	5.8%
Bromobenzene	47.3	50.0	94.6%	49.0	50.0	98.0%	3.5%
2-Chlorotoluene	46.8	50.0	93.6%	51.7	50.0	103%	9.9%
4-Chlorotoluene	52.0	50.0	104%	50.8	50.0	102%	2.3%
tert-Butylbenzene	47.2	50.0	94.4%	51.1	50.0	102%	7.9%
sec-Butylbenzene	49.8	50.0	99.6%	52.9	50.0	106%	6.0%
4-Isopropyltoluene	50.2	50.0	100%	52.6	50.0	105%	4.7%
n-Butylbenzene	51.9	50.0	104%	55.0	50.0	110%	5.8%
1,2,4-Trichlorobenzene	51.8	50.0	104%	52.2	50.0	104%	0.8%
Naphthalene	50.6	50.0	101%	50.5	50.0	101%	0.2%
1,2,3-Trichlorobenzene	50.2	50.0	100%	49.8	50.0	99.6%	0.8%
Methyl tert-Butyl Ether	50.5	50.0	101%	50.9	50.0	102%	0.8%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	102%	102%
d8-Toluene	100%	100%
Bromofluorobenzene	101%	99.5%
d4-1,2-Dichlorobenzene	101%	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-052511

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-052511

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Data Release Authorized: *AB*

Date Sampled: NA

Reported: 05/25/11

Date Received: NA

Instrument/Analyst LCS: FINN5/PAB

Sample Amount LCS: 100 mg-dry-wt

LCSD: FINN5/PAB

LCSD: 100 mg-dry-wt

Date Analyzed LCS: 05/25/11 08:57

Purge Volume LCS: 5.0 mL

LCSD: 05/25/11 09:31

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	2500	2500	100%	2650	2500	106%	5.8%
Bromomethane	3000	2500	120%	3260	2500	130%	8.3%
Vinyl Chloride	2710	2500	108%	2930	2500	117%	7.8%
Chloroethane	2260	2500	90.4%	2500	2500	100%	10.1%
Methylene Chloride	2260	2500	90.4%	2380	2500	95.2%	5.2%
Acetone	10300	12500	82.4%	11400	12500	91.2%	10.1%
Carbon Disulfide	2330	2500	93.2%	2510	2500	100%	7.4%
1,1-Dichloroethene	2330	2500	93.2%	2480	2500	99.2%	6.2%
1,1-Dichloroethane	2330	2500	93.2%	2500	2500	100%	7.0%
trans-1,2-Dichloroethene	2300	2500	92.0%	2500	2500	100%	8.3%
cis-1,2-Dichloroethene	2320	2500	92.8%	2470	2500	98.8%	6.3%
Chloroform	2350	2500	94.0%	2500	2500	100%	6.2%
1,2-Dichloroethane	2390	2500	95.6%	2530	2500	101%	5.7%
2-Butanone	11300	12500	90.4%	12400	12500	99.2%	9.3%
1,1,1-Trichloroethane	2330	2500	93.2%	2460	2500	98.4%	5.4%
Carbon Tetrachloride	2410	2500	96.4%	2490	2500	99.6%	3.3%
Vinyl Acetate	2310	2500	92.4%	2470	2500	98.8%	6.7%
Bromodichloromethane	2440	2500	97.6%	2500	2500	100%	2.4%
1,2-Dichloropropane	2430	2500	97.2%	2610	2500	104%	7.1%
cis-1,3-Dichloropropene	2430	2500	97.2%	2570	2500	103%	5.6%
Trichloroethene	2450	2500	98.0%	2590	2500	104%	5.6%
Dibromochloromethane	2330	2500	93.2%	2470	2500	98.8%	5.8%
1,1,2-Trichloroethane	2360	2500	94.4%	2530	2500	101%	7.0%
Benzene	2430	2500	97.2%	2560	2500	102%	5.2%
trans-1,3-Dichloropropene	2480	2500	99.2%	2630	2500	105%	5.9%
2-Chloroethylvinylether	2140	2500	85.6%	2250	2500	90.0%	5.0%
Bromoform	2350	2500	94.0%	2430	2500	97.2%	3.3%
4-Methyl-2-Pentanone (MIBK)	11800	12500	94.4%	12900	12500	103%	8.9%
2-Hexanone	11800	12500	94.4%	12800	12500	102%	8.1%
Tetrachloroethene	2410	2500	96.4%	2530	2500	101%	4.9%
1,1,2,2-Tetrachloroethane	2260	2500	90.4%	2390	2500	95.6%	5.6%
Toluene	2410	2500	96.4%	2570	2500	103%	6.4%
Chlorobenzene	2410	2500	96.4%	2480	2500	99.2%	2.9%
Ethylbenzene	2540	2500	102%	2630	2500	105%	3.5%
Styrene	2450	2500	98.0%	2550	2500	102%	4.0%
Trichlorofluoromethane	2520	2500	101%	2710	2500	108%	7.3%
1,1,2-Trichloro-1,2,2-trifluoroethane	2400	2500	96.0%	2660	2500	106%	10.3%
m,p-Xylene	4940	5000	98.8%	5140	5000	103%	4.0%
o-Xylene	2430	2500	97.2%	2540	2500	102%	4.4%
1,2-Dichlorobenzene	2360	2500	94.4%	2490	2500	99.6%	5.4%
1,3-Dichlorobenzene	2400	2500	96.0%	2500	2500	100%	4.1%
1,4-Dichlorobenzene	2380	2500	95.2%	2500	2500	100%	4.9%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260C

Sample ID: LCS-052511

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-052511

QC Report No: SX92-The Boeing Company

LIMS ID: 11-11455

Project: Boeing Space Center

Matrix: Soil

025195.004

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Acrolein	11600	12500	92.8%	13000	12500	104%	11.4%
Methyl Iodide	3130	2500	125%	3320	2500	133%	5.9%
Bromoethane	2340	2500	93.6%	2520	2500	101%	7.4%
Acrylonitrile	2250	2500	90.0%	2450	2500	98.0%	8.5%
1,1-Dichloropropene	2460	2500	98.4%	2600	2500	104%	5.5%
Dibromomethane	2400	2500	96.0%	2500	2500	100%	4.1%
1,1,1,2-Tetrachloroethane	2420	2500	96.8%	2490	2500	99.6%	2.9%
1,2-Dibromo-3-chloropropane	2130	2500	85.2%	2410	2500	96.4%	12.3%
1,2,3-Trichloropropane	2470	2500	98.8%	2550	2500	102%	3.2%
trans-1,4-Dichloro-2-butene	2400	2500	96.0%	2580	2500	103%	7.2%
1,3,5-Trimethylbenzene	2450	2500	98.0%	2570	2500	103%	4.8%
1,2,4-Trimethylbenzene	2460	2500	98.4%	2580	2500	103%	4.8%
Hexachlorobutadiene	2260	2500	90.4%	2610	2500	104%	14.4%
Ethylene Dibromide	2420	2500	96.8%	2480	2500	99.2%	2.4%
Bromochloromethane	2360	2500	94.4%	2470	2500	98.8%	4.6%
2,2-Dichloropropane	2400	2500	96.0%	2550	2500	102%	6.1%
1,3-Dichloropropane	2360	2500	94.4%	2470	2500	98.8%	4.6%
Isopropylbenzene	2500	2500	100%	2620	2500	105%	4.7%
n-Propylbenzene	2580	2500	103%	2710	2500	108%	4.9%
Bromobenzene	2340	2500	93.6%	2420	2500	96.8%	3.4%
2-Chlorotoluene	2440	2500	97.6%	2570	2500	103%	5.2%
4-Chlorotoluene	2400	2500	96.0%	2470	2500	98.8%	2.9%
tert-Butylbenzene	2410	2500	96.4%	2540	2500	102%	5.3%
sec-Butylbenzene	2500	2500	100%	2660	2500	106%	6.2%
4-Isopropyltoluene	2480	2500	99.2%	2630	2500	105%	5.9%
n-Butylbenzene	2450	2500	98.0%	2680	2500	107%	9.0%
1,2,4-Trichlorobenzene	2300	2500	92.0%	2580	2500	103%	11.5%
Naphthalene	2110	2500	84.4%	2450	2500	98.0%	14.9%
1,2,3-Trichlorobenzene	2170	2500	86.8%	2480	2500	99.2%	13.3%
Methyl tert-Butyl Ether	2220	2500	88.8%	2450	2500	98.0%	9.9%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	100%	102%
d8-Toluene	103%	104%
Bromofluorobenzene	101%	102%
d4-1,2-Dichlorobenzene	100%	102%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
 Page 1 of 1

Sample ID: KSC-DP-24a-S-6-7-110520
SAMPLE

Lab Sample ID: SX92A
 LIMS ID: 11-11455
 Matrix: Soil
 Data Release Authorized: *[Signature]*
 Reported: 05/27/11

QC Report No: SX92-The Boeing Company
 Project: Boeing Space Center
 Event: 025195.004
 Date Sampled: 05/20/11
 Date Received: 05/20/11

Date Extracted: 05/26/11
 Date Analyzed: 05/27/11 14:13
 Instrument/Analyst: NT4/VTS
 GPC Cleanup: No
 Silica Gel Cleanup: Yes
 Alumina Cleanup: No

Sample Amount: 10.06 g-dry-wt
 Final Extract Volume: 0.5 mL
 Dilution Factor: 1.00
 Percent Moisture: 16.2%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	5.0	280
91-57-6	2-Methylnaphthalene	5.0	180
90-12-0	1-Methylnaphthalene	5.0	110
208-96-8	Acenaphthylene	5.0	< 5.0 U
83-32-9	Acenaphthene	5.0	10
86-73-7	Fluorene	5.0	8.5
85-01-8	Phenanthrene	5.0	15
120-12-7	Anthracene	5.0	< 5.0 U
206-44-0	Fluoranthene	5.0	6.8
129-00-0	Pyrene	5.0	5.7
56-55-3	Benzo(a)anthracene	5.0	< 5.0 U
218-01-9	Chrysene	5.0	5.2
50-32-8	Benzo(a)pyrene	5.0	< 5.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	< 5.0 U
53-70-3	Dibenz(a,h)anthracene	5.0	< 5.0 U
191-24-2	Benzo(g,h,i)perylene	5.0	< 5.0 U
132-64-9	Dibenzofuran	5.0	9.4
TOTBFA	Total Benzofluoranthenes	5.0	< 5.0 U


Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 79.0%
 d14-Dibenzo(a,h)anthracen 91.3%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
 Page 1 of 1

Sample ID: KSC-DP-24a-S-9-10-110520
SAMPLE

Lab Sample ID: SX92B
 LIMS ID: 11-11456
 Matrix: Soil
 Data Release Authorized: 
 Reported: 05/27/11

QC Report No: SX92-The Boeing Company
 Project: Boeing Space Center
 Event: 025195.004
 Date Sampled: 05/20/11
 Date Received: 05/20/11

Date Extracted: 05/26/11
 Date Analyzed: 05/27/11 14:40
 Instrument/Analyst: NT4/VTS
 GPC Cleanup: No
 Silica Gel Cleanup: Yes
 Alumina Cleanup: No

Sample Amount: 10.04 g-dry-wt
 Final Extract Volume: 0.5 mL
 Dilution Factor: 1.00
 Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	5.0	260
91-57-6	2-Methylnaphthalene	5.0	830 E
90-12-0	1-Methylnaphthalene	5.0	490
208-96-8	Acenaphthylene	54	< 54 Y
83-32-9	Acenaphthene	160	< 160 Y
86-73-7	Fluorene	5.0	96
85-01-8	Phenanthrene	5.0	280
120-12-7	Anthracene	5.0	< 5.0 U
206-44-0	Fluoranthene	5.0	< 5.0 U
129-00-0	Pyrene	5.0	15
56-55-3	Benzo(a)anthracene	5.0	< 5.0 U
218-01-9	Chrysene	5.0	< 5.0 U
50-32-8	Benzo(a)pyrene	5.0	< 5.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	< 5.0 U
53-70-3	Dibenz(a,h)anthracene	5.0	< 5.0 U
191-24-2	Benzo(g,h,i)perylene	5.0	< 5.0 U
132-64-9	Dibenzofuran	60	< 60 Y
TOTBEA	Total Benzofluoranthenes	5.0	< 5.0 U


Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 77.7%
 d14-Dibenzo(a,h)anthracen 90.0%

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS
 Page 1 of 1

Sample ID: KSC-DP-24a-S-9-10-110520
DILUTION

Lab Sample ID: SX92B
 LIMS ID: 11-11456
 Matrix: Soil
 Data Release Authorized: 
 Reported: 05/27/11

QC Report No: SX92-The Boeing Company
 Project: Boeing Space Center
 Event: 025195.004
 Date Sampled: 05/20/11
 Date Received: 05/20/11

Date Extracted: 05/26/11
 Date Analyzed: 05/27/11 15:18
 Instrument/Analyst: NT4/VTS
 GPC Cleanup: No
 Silica Gel Cleanup: Yes
 Alumina Cleanup: No

Sample Amount: 10.04 g-dry-wt
 Final Extract Volume: 0.5 mL
 Dilution Factor: 3.00
 Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	15	260
91-57-6	2-Methylnaphthalene	15	860
90-12-0	1-Methylnaphthalene	15	480
208-96-8	Acenaphthylene	56	< 56 Y
83-32-9	Acenaphthene	150	< 150 Y
86-73-7	Fluorene	15	97
85-01-8	Phenanthrene	15	280
120-12-7	Anthracene	15	< 15 U
206-44-0	Fluoranthene	15	< 15 U
129-00-0	Pyrene	15	< 15 U
56-55-3	Benzo(a)anthracene	15	< 15 U
218-01-9	Chrysene	15	< 15 U
50-32-8	Benzo(a)pyrene	15	< 15 U
193-39-5	Indeno(1,2,3-cd)pyrene	15	< 15 U
53-70-3	Dibenz(a,h)anthracene	15	< 15 U
191-24-2	Benzo(g,h,i)perylene	15	< 15 U
132-64-9	Dibenzofuran	59	< 59 Y
TOTBFA	Total Benzofluoranthenes	15	< 15 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 79.0%
 d14-Dibenzo(a,h)anthracen 92.0%

ORGANICS ANALYSIS DATA SHEET
PNA's by SIM SW8270D-SIM GC/MS
 Page 1 of 1

Sample ID: MB-052611
METHOD BLANK

Lab Sample ID: MB-052611
 LIMS ID: 11-11455
 Matrix: Soil
 Data Release Authorized: *AS*
 Reported: 05/27/11

QC Report No: SX92-The Boeing Company
 Project: Boeing Space Center
 Event: 025195.004
 Date Sampled: NA
 Date Received: NA

Date Extracted: 05/26/11
 Date Analyzed: 05/27/11 11:06
 Instrument/Analyst: NT4/VTS
 GPC Cleanup: No
 Silica Gel Cleanup: Yes
 Alumina Cleanup: No

Sample Amount: 10.00 g-dry-wt
 Final Extract Volume: 0.5 mL
 Dilution Factor: 1.00
 Percent Moisture: NA

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	5.0	< 5.0 U
90-12-0	1-Methylnaphthalene	5.0	< 5.0 U
208-96-8	Acenaphthylene	5.0	< 5.0 U
83-32-9	Acenaphthene	5.0	< 5.0 U
86-73-7	Fluorene	5.0	< 5.0 U
85-01-8	Phenanthrene	5.0	< 5.0 U
120-12-7	Anthracene	5.0	< 5.0 U
206-44-0	Fluoranthene	5.0	< 5.0 U
129-00-0	Pyrene	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	5.0	< 5.0 U
218-01-9	Chrysene	5.0	< 5.0 U
50-32-8	Benzo(a)pyrene	5.0	< 5.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	< 5.0 U
53-70-3	Dibenz(a,h)anthracene	5.0	< 5.0 U
191-24-2	Benzo(g,h,i)perylene	5.0	< 5.0 U
132-64-9	Dibenzofuran	5.0	< 5.0 U
TOTBFA	Total Benzofluoranthenes	5.0	< 5.0 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene 69.0%
 d14-Dibenzo(a,h)anthracen 85.7%

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
025195.004

<u>Client ID</u>	<u>MNP</u>	<u>DBA</u>	<u>TOT OUT</u>
MB-052611	69.0%	85.7%	0
LCS-052611	69.3%	91.3%	0
LCSD-052611	70.7%	92.7%	0
KSC-DP-24a-S-6-7-110520	79.0%	91.3%	0
KSC-DP-24a-S-9-10-110520	77.7%	90.0%	0
KSC-DP-24a-S-9-10-110520 DL	79.0%	92.0%	0

LCS/MB LIMITS QC LIMITS

(MNP) = d10-2-Methylnaphthalene (35-100) (34-100)
(DBA) = d14-Dibenzo(a,h)anthracene (37-120) (10-117)

Prep Method: SW3546
Log Number Range: 11-11455 to 11-11456

ORGANICS ANALYSIS DATA SHEET

PNAs by SW8270D-SIM GC/MS

Page 1 of 1

Sample ID: LCS-052611

LAB CONTROL SAMPLE

Lab Sample ID: LCS-052611

LIMS ID: 11-11455

Matrix: Soil

Data Release Authorized: *B*

Reported: 05/27/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

Event: 025195.004

Date Sampled: NA

Date Received: NA

Date Extracted: 05/26/11

Sample Amount LCS: 10.0 g-dry-wt

LCSD: 10.0 g-dry-wt

Date Analyzed LCS: 05/27/11 11:33

Final Extract Volume LCS: 0.50 mL

LCSD: 05/27/11 11:59

LCSD: 0.50 mL

Instrument/Analyst LCS: NT4/VTS

Dilution Factor LCS: 1.00

LCSD: NT4/VTS

LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	98.6	150	65.7%	102	150	68.0%	3.4%
2-Methylnaphthalene	99.4	150	66.3%	103	150	68.7%	3.6%
1-Methylnaphthalene	101	150	67.3%	103	150	68.7%	2.0%
Acenaphthylene	102	150	68.0%	106	150	70.7%	3.8%
Acenaphthene	103	150	68.7%	105	150	70.0%	1.9%
Fluorene	104	150	69.3%	109	150	72.7%	4.7%
Phenanthrene	120	150	80.0%	123	150	82.0%	2.5%
Anthracene	120	150	80.0%	124	150	82.7%	3.3%
Fluoranthene	129	150	86.0%	129	150	86.0%	0.0%
Pyrene	140	150	93.3%	138	150	92.0%	1.4%
Benzo(a)anthracene	143	150	95.3%	139	150	92.7%	2.8%
Chrysene	144	150	96.0%	141	150	94.0%	2.1%
Benzo(a)pyrene	133	150	88.7%	141	150	94.0%	5.8%
Indeno(1,2,3-cd)pyrene	131	150	87.3%	142	150	94.7%	8.1%
Dibenz(a,h)anthracene	139	150	92.7%	144	150	96.0%	3.5%
Benzo(g,h,i)perylene	129	150	86.0%	141	150	94.0%	8.9%
Dibenzofuran	108	150	72.0%	113	150	75.3%	4.5%
Total Benzofluoranthenes	270	300	90.0%	271	300	90.3%	0.4%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.


SIM Semivolatile Surrogate Recovery

	LCS	LCSD
d10-2-Methylnaphthalene	69.3%	70.7%
d14-Dibenzo(a,h)anthracen	91.3%	92.7%

**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: SX92-The Boeing Company
Project: Boeing Space Center
025195.004

Data Release Authorized: 
Reported: 05/27/11

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-052611 11-11455	Method Blank HC ID: ---	05/26/11	05/26/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.0 10	< 5.0 U < 10 U 105%
SX92A 11-11455	KSC-DP-24a-S-6-7-110505/26/11 HC ID: ---	05/26/11	05/26/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	5.9 12	< 5.9 U < 12 U 87.0%
SX92B 11-11456	KSC-DP-24a-S-9-10-11005/26/11 HC ID: DIESEL	05/26/11	05/26/11 FID9	1.00 1.0	Diesel Motor Oil o-Terphenyl	7.0 14	230 < 14 U 78.0%

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: SX92-The Boeing Company
Project: Boeing Space Center
025195.004

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-052611	105%	0
LCS-052611	105%	0
LCSD-052611	101%	0
KSC-DP-24a-S-6-7-1	87.0%	0
KSC-DP-24a-S-9-10-	78.0%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(59-134)	(43-137)

Prep Method: SW3546
Log Number Range: 11-11455 to 11-11456

ORGANICS ANALYSIS DATA SHEET

NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: LCS-052611
LCS/LCSD

Lab Sample ID: LCS-052611
LIMS ID: 11-11455
Matrix: Soil
Data Release Authorized: *AB*
Reported: 05/27/11

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
025195.004
Date Sampled: 05/20/11
Date Received: 05/20/11

Date Extracted LCS/LCSD: 05/26/11
Date Analyzed LCS: 05/26/11 19:44
LCSD: 05/26/11 20:06
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	Spike		LCS	LCS	Spike		RPD
	LCS	Added-LCS	Recovery		LCS	Added-LCSD	
Diesel	134	150	89.3%	132	150	88.0%	1.5%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	105%	101%

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

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Soil
Date Received: 05/20/11

ARI Job: SX92
Project: Boeing Space Center
025195.004

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
11-11455-052611MB1	Method Blank	10.0 g	1.00 mL	-	05/26/11
11-11455-052611LCS1	Lab Control	10.0 g	1.00 mL	-	05/26/11
11-11455-052611LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	05/26/11
11-11455-SX92A	KSC-DP-24a-S-6-7-118.45 g	118.45 g	1.00 mL	D	05/26/11
11-11456-SX92B	KSC-DP-24a-S-9-10-17.160g	17.160g	1.00 mL	D	05/26/11

ORGANICS ANALYSIS DATA SHEET

Aliphatic/Aromatic GC-EPH

Page 1 of 1


Sample ID: KSC-DP-24a-S-6-7-110520

SAMPLE

Lab Sample ID: SX92A

LIMS ID: 11-11455

Matrix: Soil

Data Release Authorized: 

Reported: 05/26/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: 05/20/11

Date Received: 05/20/11

Date Extracted: 05/25/11

Percent Moisture: 16.2%

Sample Amount: 8.42 g-dry-wt

Final Extract Volume: 1.0 mL

Aliphatic

Date Analyzed: 05/25/11 19:16

Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic

Date Analyzed: 05/25/11 22:38

Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,400	< 2,400 U
C10-C12 Aliphatics	2,400	< 2,400 U
C12-C16 Aliphatics	2,400	< 2,400 U
C16-C21 Aliphatics	2,400	< 2,400 U
C21-C34 Aliphatics	2,400	< 2,400 U
C8-C10 Aromatics	2,400	< 2,400 U
C10-C12 Aromatics	2,400	< 2,400 U
C12-C16 Aromatics	2,400	10,000
C16-C21 Aromatics	2,400	30,000
C21-C34 Aromatics	2,400	9,900

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	83.2%
Aromatic	o-Terphenyl	70.0%

ORGANICS ANALYSIS DATA SHEET

Aliphatic/Aromatic GC-EPH


Page 1 of 1

**Sample ID: KSC-DP-24a-S-9-10-110520
SAMPLE**

Lab Sample ID: SX92B

LIMS ID: 11-11456

Matrix: Soil

Data Release Authorized: 

Reported: 05/26/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: 05/20/11

Date Received: 05/20/11

Date Extracted: 05/25/11

Percent Moisture: 28.4%

Sample Amount: 7.19 g-dry-wt

Final Extract Volume: 1.0 mL

Aliphatic

Date Analyzed: 05/25/11 19:41

Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic

Date Analyzed: 05/25/11 23:03

Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,800	< 2,800 U
C10-C12 Aliphatics	2,800	8,500
C12-C16 Aliphatics	2,800	50,000
C16-C21 Aliphatics	2,800	78,000
C21-C34 Aliphatics	2,800	22,000
C8-C10 Aromatics	2,800	< 2,800 U
C10-C12 Aromatics	2,800	< 2,800 U
C12-C16 Aromatics	2,800	12,000
C16-C21 Aromatics	2,800	25,000
C21-C34 Aromatics	2,800	5,200

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	73.7%
Aromatic	o-Terphenyl	86.5%

ORGANICS ANALYSIS DATA SHEET

Aliphatic/Aromatic GC-EPH

Page 1 of 1

Sample ID: MB-052511

METHOD BLANK

Lab Sample ID: MB-052511

LIMS ID: 11-11455

Matrix: Soil

Data Release Authorized:

Reported: 05/26/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: NA

Date Received: NA

Date Extracted: 05/25/11

Percent Moisture: NA

Sample Amount: 10.0 g-as-rec

Final Extract Volume: 1.0 mL

Aliphatic

Date Analyzed: 05/25/11 20:57

Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Aromatic

Date Analyzed: 05/26/11 00:19

Instrument/Analyst: FID8/MS

Dilution Factor: 1.00

Range	RL	Result
C8-C10 Aliphatics	2,000	< 2,000 U
C10-C12 Aliphatics	2,000	< 2,000 U
C12-C16 Aliphatics	2,000	< 2,000 U
C16-C21 Aliphatics	2,000	< 2,000 U
C21-C34 Aliphatics	2,000	< 2,000 U
C8-C10 Aromatics	2,000	< 2,000 U
C10-C12 Aromatics	2,000	< 2,000 U
C12-C16 Aromatics	2,000	< 2,000 U
C16-C21 Aromatics	2,000	< 2,000 U
C21-C34 Aromatics	2,000	< 2,000 U

Reported in µg/kg (ppb)

EPH Surrogate Recovery

Aliphatic	1-Chlorooctadecane	82.5%
Aromatic	o-Terphenyl	83.8%

ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
025195.004

<u>Client ID</u>	<u>COD</u>	<u>TOT OUT</u>
MB-052511	82.5%	0
LCS-052511	81.6%	0
LCSD-052511	81.5%	0
KSC-DP-24a-S-6-7-110520	83.2%	0
KSC-DP-24a-S-9-10-110520	73.7%	0

LCS/MB LIMITS QC LIMITS

(COD) = 1-Chlorooctadecane

(27-128)

(39-131)

Prep Method: SW3550C

Log Number Range: 11-11455 to 11-11456

AREPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
025195.004

<u>Client ID</u>	<u>OTER</u>	<u>TOT OUT</u>
MB-052511	83.8%	0
LCS-052511	85.3%	0
LCSD-052511	82.9%	0
KSC-DP-24a-S-6-7-110520	70.0%	0
KSC-DP-24a-S-9-10-110520	86.5%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(34-133)	(10-143)

Prep Method: SW3550C
Log Number Range: 11-11455 to 11-11456

ORGANICS ANALYSIS DATA SHEET

Aliphatic/Aromatic GC-EPH

Page 1 of 1

Sample ID: LCS-052511

LCS/LCSD

Lab Sample ID: LCS-052511

LIMS ID: 11-11455

Matrix: Soil

Data Release Authorized: *A*

Reported: 05/26/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: NA

Date Received: NA

Date Extracted LCS/LCSD: 05/25/11

Sample Amount LCS: 10.0 g-as-rec

LCSD: 10.0 g-as-rec

Final Extract Volume LCS: 1.0 mL

LCSD: 1.0 mL

Aliphatic

Date Analyzed LCS: 05/25/11 20:07

LCSD: 05/25/11 20:32

Instrument/Analyst LCS: FID8/MS

LCSD: FID8/MS

Dilution Factor LCS: 1.00

LCSD: 1.00

Aromatic

Date Analyzed LCS: 05/25/11 23:28

LCSD: 05/25/11 23:54

Instrument/Analyst LCS: FID8/MS

LCSD: FID8/MS

Dilution Factor LCS: 1.00

LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
C8-C10 Aliphatics	10000	15000	66.7%	10300	15000	68.7%	3.0%
C10-C12 Aliphatics	11000	15000	73.3%	10500	15000	70.0%	4.7%
C12-C16 Aliphatics	13000	15000	86.7%	13100	15000	87.3%	0.8%
C16-C21 Aliphatics	13000	15000	86.7%	12800	15000	85.3%	1.6%
C10-C12 Aromatics	9900	15000	66.0%	9900	15000	66.0%	0.0%
C12-C16 Aromatics	12300	15000	82.0%	12000	15000	80.0%	2.5%
C16-C21 Aromatics	26600	30000	88.7%	26400	30000	88.0%	0.8%
C21-C34 Aromatics	25100	30000	83.7%	26400	30000	88.0%	5.0%

EPH Surrogate Recovery

		LCS	LCSD
Aliphatic	1-Chlorooctadecane	81.6%	81.5%
Aromatic	o-Terphenyl	85.3%	82.9%

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

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Soil

Data Release Authorized: *[Signature]*

Reported: 05/25/11



QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

Event: 025195.004

Date Sampled: 05/20/11

Date Received: 05/20/11

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-052311 11-11455	Method Blank	05/23/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	< 5.0 U --- 103% 98.2%
SX92A 11-11455	KSC-DP-24a-S-6-7-110520	05/23/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	24 GAS 104% 98.9%
SX92B 11-11456	KSC-DP-24a-S-9-10-110520	05/23/11 PID2	Dry	Gasoline HC ID Trifluorotoluene Bromobenzene	500 GAS 104% 89.7%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Matrix: Water

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

Event: 025195.004

Data Release Authorized: *JB*

Date Sampled: 05/20/11

Reported: 05/25/11

Date Received: 05/20/11

ARI ID	Client ID	Analysis Date	DL	Range	Result
SX92E 11-11459	Trip Blanks	05/23/11 PID2	1.0	Gasoline HC ID Trifluorotoluene Bromobenzene	< 0.25 U --- 103% 96.6%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.

GRO: Positive result that does not match an identifiable gasoline pattern.

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: SX92
Matrix: Soil

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
Event: 025195.004

Client ID	BFB	TFT	BBZ	TOT OUT
MB-052311	NA	103%	98.2%	0
LCS-052311	NA	112%	105%	0
LCSD-052311	NA	114%	106%	0
KSC-DP-24a-S-6-7-110520	NA	104%	98.9%	0
KSC-DP-24a-S-9-10-11052	NA	104%	89.7%	0

	LCS/MB LIMITS	QC LIMITS
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 11-11455 to 11-11456

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: SX92
Matrix: Water

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
Event: 025195.004

<u>Client ID</u>	<u>TFT</u>	<u>BBZ</u>	<u>TOT OUT</u>
Trip Blanks	103%	96.6%	0

	<u>LCS/MB LIMITS</u>	<u>QC LIMITS</u>
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 11-11459 to 11-11459

ORGANICS ANALYSIS DATA SHEET

TPHG by Method NWTPHG

Page 1 of 1

Sample ID: LCS-052311

LAB CONTROL SAMPLE

Lab Sample ID: LCS-052311

LIMS ID: 11-11455

Matrix: Soil

Data Release Authorized: *B*

Reported: 05/25/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

Event: 025195.004

Date Sampled: NA

Date Received: NA

Date Analyzed LCS: 05/23/11 11:29

Purge Volume: 5.0 mL

LCSD: 05/23/11 11:56

Instrument/Analyst LCS: PID2/MH

Sample Amount LCS: 100 mg-dry-wt

LCSD: PID2/MH

LCSD: 100 mg-dry-wt

Analyte	LCS	Spike	LCS	LCSD	Spike	LCSD	RPD
		Added-LCS	Recovery		Added-LCSD	Recovery	
Gasoline Range Hydrocarbons	53.7	50.0	107%	52.7	50.0	105%	1.9%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	112%	114%
Bromobenzene	105%	106%

ORGANICS ANALYSIS DATA SHEET

VPH by Method WA VPH

Page 1 of 1

Sample ID: KSC-DP-24a-S-6-7-110520

SAMPLE

Lab Sample ID: SX92C

LIMS ID: 11-11457

Matrix: Soil

Data Release Authorized: *MW*

Reported: 05/24/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: 05/20/11

Date Received: 05/20/11

Date Analyzed: 05/23/11 12:37

Instrument/Analyst: PID1/MH

Purge Volume: 10 mL

Sample Amount: 44.2 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1100	< 1,100 U
108-88-3	Toluene	1100	< 1,100 U
100-41-4	Ethylbenzene	1100	< 1,100 U
179601-23-1	m,p-Xylene	2300	< 2,300 U
95-47-6	o-Xylene	1100	< 1,100 U
1634-04-4	Methyl tert-Butyl Ether	1100	< 1,100 U
109-66-0	n-Pentane	1100	< 1,100 U
110-54-3	n-Hexane	1100	< 1,100 U
111-65-9	n-Octane	1100	< 1,100 U
124-18-5	n-Decane	1100	< 1,100 U
112-40-3	n-Dodecane	1100	< 1,100 U

Range	RL	Result
C8-C10 Aromatics	11,000	< 11,000 U
C10-C12 Aromatics	11,000	< 11,000 U
C12-C13 Aromatics	11,000	< 11,000 U
C5-C6 Aliphatics	11,000	< 11,000 U
C6-C8 Aliphatics	11,000	< 11,000 U
C8-C10 Aliphatics	11,000	< 11,000 U
C10-C12 Aliphatics	11,000	< 11,000 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	104%
FID: 2,5-Dibromotoluene	101%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET

VPH by Method WA VPH

Page 1 of 1

**Sample ID: KSC-DP-24a-S-9-10-110520
SAMPLE**

Lab Sample ID: SX92D

LIMS ID: 11-11458

Matrix: Soil

Data Release Authorized: *MMW*

Reported: 05/24/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: 05/20/11

Date Received: 05/20/11

Date Analyzed: 05/23/11 13:25

Instrument/Analyst: PID1/MH

Purge Volume: 10 mL

Sample Amount: 26.0 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1900	< 1,900 U
108-88-3	Toluene	1900	< 1,900 U
100-41-4	Ethylbenzene	1900	< 1,900 U
179601-23-1	m,p-Xylene	3800	< 3,800 U
95-47-6	o-Xylene	1900	< 1,900 U
1634-04-4	Methyl tert-Butyl Ether	1900	< 1,900 U
109-66-0	n-Pentane	1900	< 1,900 U
110-54-3	n-Hexane	1900	< 1,900 U
111-65-9	n-Octane	1900	< 1,900 U
124-18-5	n-Decane	1900	< 1,900 U
112-40-3	n-Dodecane	1900	6,200

Range	RL	Result
C8-C10 Aromatics	19,000	43,000
C10-C12 Aromatics	19,000	190,000
C12-C13 Aromatics	19,000	200,000
C5-C6 Aliphatics	19,000	< 19,000 U
C6-C8 Aliphatics	19,000	< 19,000 U
C8-C10 Aliphatics	19,000	22,000
C10-C12 Aliphatics	19,000	< 19,000 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	108%
FID: 2,5-Dibromotoluene	117%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ORGANICS ANALYSIS DATA SHEET

VPH by Method WA VPH

Page 1 of 1

Sample ID: MB-052311

METHOD BLANK

Lab Sample ID: MB-052311

LIMS ID: 11-11457

Matrix: Soil

Data Release Authorized: *MW*

Reported: 05/24/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: NA

Date Received: NA

Date Analyzed: 05/23/11 11:23

Instrument/Analyst: PID1/MH

Purge Volume: 10 mL

Sample Amount: 111 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	450	< 450 U
108-88-3	Toluene	450	< 450 U
100-41-4	Ethylbenzene	450	< 450 U
179601-23-1	m,p-Xylene	900	< 900 U
95-47-6	o-Xylene	450	< 450 U
1634-04-4	Methyl tert-Butyl Ether	450	< 450 U
109-66-0	n-Pentane	450	< 450 U
110-54-3	n-Hexane	450	< 450 U
111-65-9	n-Octane	450	< 450 U
124-18-5	n-Decane	450	< 450 U
112-40-3	n-Dodecane	450	< 450 U

Range	RL	Result
C8-C10 Aromatics	4,500	< 4,500 U
C10-C12 Aromatics	4,500	< 4,500 U
C12-C13 Aromatics	4,500	< 4,500 U
C5-C6 Aliphatics	4,500	< 4,500 U
C6-C8 Aliphatics	4,500	< 4,500 U
C8-C10 Aliphatics	4,500	< 4,500 U
C10-C12 Aliphatics	4,500	< 4,500 U

Values reported in µg/kg (ppb)

VPH Surrogate Recovery

PID: 2,5-Dibromotoluene	97.6%
FID: 2,5-Dibromotoluene	96.0%

VPH SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: SX92-The Boeing Company
Project: Boeing Space Center
025195.004

<u>Client ID</u>	<u>PDBT</u>	<u>FDBT</u>	<u>TOT</u>	<u>OUT</u>
MB-052311	97.6%	96.0%	0	
LCS-052311	107%	102%	0	
LCSD-052311	107%	102%	0	
KSC-DP-24a-S-6-7-110520	104%	101%	0	
KSC-DP-24a-S-9-10-110520	108%	117%	0	

	LCS/MB LIMITS	QC LIMITS
(PDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)
(FDBT) = 2,5-Dibromotoluene	(60-140)	(60-140)

Prep Method: METHOD
Log Number Range: 11-11457 to 11-11458

ORGANICS ANALYSIS DATA SHEET

VPH by Method WA VPH

Page 1 of 1

Sample ID: LCS-052311

LCS/LCSD

Lab Sample ID: LCS-052311

LIMS ID: 11-11457

Matrix: Soil

Data Release Authorized: *mmw*

Reported: 05/24/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: NA

Date Received: NA

Date Analyzed LCS: 05/23/11 09:54

Date Analyzed LCSD: 05/23/11 10:24

Instrument/Analyst: PID1/MH

Purge Volume: 10 mL

Sample Amount: 111 mg-dry-wt

Analyte/Range	Spike		LCS		Spike		LCSD	
	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	RPD	
Benzene	4720	4500	105%	4650	4500	103%	1.5%	
Toluene	4800	4500	107%	4680	4500	104%	2.5%	
Ethylbenzene	4840	4500	108%	4820	4500	107%	0.4%	
m,p-Xylene	9630	9010	107%	9540	9010	106%	0.9%	
o-Xylene	4720	4500	105%	4710	4500	105%	0.2%	
Methyl tert-Butyl Ether	4540	4500	101%	4460	4500	99.1%	1.8%	
Naphthalene	5270	4500	117%	4910	4500	109%	7.1%	
1,2,3-Trimethylbenzene	5020	4500	112%	4930	4500	110%	1.8%	
1-Methylnaphthalene	5810	4500	129%	5800	4500	129%	0.2%	
n-Pentane	5850	4500	130%	5820	4500	129%	0.5%	
n-Hexane	5290	4500	118%	5220	4500	116%	1.3%	
n-Octane	5100	4500	113%	5090	4500	113%	0.2%	
n-Decane	5180	4500	115%	5430	4500	121%	4.7%	
n-Dodecane	5310	4500	118%	5270	4500	117%	0.8%	

Values reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

VPH Surrogate Recovery

	LCS	LCSD
PID: 2,5-Dibromotoluene	107%	107%
FID: 2,5-Dibromotoluene	102%	102%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

**Sample ID: KSC-DP-24a-S-6-7-110520
SAMPLE**

Lab Sample ID: SX92A

LIMS ID: 11-11455

Matrix: Soil

Data Release Authorized 

Reported: 05/24/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: 05/20/11

Date Received: 05/20/11

Percent Total Solids: 83.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/23/11	200.8	05/23/11	7439-92-1	Lead	0.1	6.5	

U-Analyte undetected at given RL

RL-Reporting Limit

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS


Page 1 of 1

**Sample ID: KSC-DP-24a-S-9-10-110520
SAMPLE**

Lab Sample ID: SX92B

LIMS ID: 11-11456

Matrix: Soil

Data Release Authorized: 

Reported: 05/24/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: 05/20/11

Date Received: 05/20/11

Percent Total Solids: 70.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	05/23/11	200.8	05/23/11	7439-92-1	Lead	0.1	5.6	

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: SX92LCS

LIMS ID: 11-11455

Matrix: Soil

Data Release Authorized: 

Reported: 05/24/11

QC Report No: SX92-The Boeing Company

Project: Boeing Space Center

025195.004

Date Sampled: NA

Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Lead	200.8	25.2	25.0	101%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

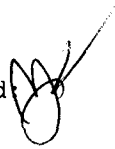
Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Sample ID: METHOD BLANK

Page 1 of 1

Lab Sample ID: SX92MB
 LIMS ID: 11-11455
 Matrix: Soil
 Data Release Authorized: 
 Reported: 05/24/11

QC Report No: SX92-The Boeing Company
 Project: Boeing Space Center
 025195.004
 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	05/23/11	200.8	05/23/11	7439-92-1	Lead	0.1	0.1	U

U-Analyte undetected at given RL
 RL-Reporting Limit

Soil Disposal Documentation

Customer Summary Report

Criteria: 11/01/2010 12:00 AM to 11/12/2010 11:59 PM

Business Unit Name: AK St Reload and Recycle Facility - S07325 (USA)

Customer Name: BOEING (BOEING)

Ticket Date	Ticket ID	Cust Code	MAS Unique ID	Customer	Generator	Manifest	Profile	Truck	Tons	Total
11/3/2010	24598	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	32.03	
11/3/2010	24600	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	34.3	
11/3/2010	24605	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	31.31	
11/3/2010	24608	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	34.89	
11/3/2010	24615	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	31.25	
11/3/2010	24617	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	36.38	
11/4/2010	24623	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	34.97	
11/4/2010	24624	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	32.06	
11/4/2010	24635	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	35.88	
11/4/2010	24637	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	32.79	
11/4/2010	24642	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	35.67	
11/4/2010	24643	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	32.48	
11/4/2010	24654	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	33.85	
11/4/2010	24655	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	33.09	
11/4/2010	24658	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	34.98	
11/4/2010	24659	13		BOEING	OR-BOEING KENT	U2906	105241WA	E20	31.79	
11/5/2010	24661	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	35.18	
11/5/2010	24663	13		BOEING	OR-BOEING KENT	U2906	105241WA	E18	33.55	
11/5/2010	24665	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	34.34	
11/5/2010	24669	13		BOEING	OR-BOEING KENT	U2906	105241WA	E18	33.26	
11/5/2010	24670	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	35.18	
11/5/2010	24672	13		BOEING	OR-BOEING KENT	U2906	105241WA	E18	32.62	
11/8/2010	24682	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	35.4	
11/8/2010	24683	13		BOEING	OR-BOEING KENT	U2906	105241WA	E18	33.75	
11/8/2010	24687	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	34.54	
11/8/2010	24689	13		BOEING	OR-BOEING KENT	U2906	105241WA	E18	34.02	
11/8/2010	24690	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	34.2	

11/8/2010	24691	13		BOEING	OR-BOEING KENT	U2906	105241WA	E18	34.82	██████████
11/8/2010	24692	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	35	██████████
11/9/2010	24769	13		BOEING	OR-BOEING KENT	U2906	105241WA	E23	29.46	██████████
Material Total	30								1013.04	██████████
Customer Total	30								1013.04	██████████
Ticket Totals	30								1013.04	██████████
External Customer	Loads	Yards	Tons	Total Ticket Amount						
BOEING	30	0	1013.04	██████████						



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24599

PH: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/03/2010
 Payment Type Credit Account
 Manual ticket#
 Route AK
 Hauling Ticket#
 Destination
 PQ# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	105200 lb
In	11/03/2010 11:37:27	SCALE 1	lmercer		Tare	41140 lb
Out	11/03/2010 11:37:27		lmercer		Net	64060 lb
					Tons	32.03

Comments ECTI YE
 PROFILE 105241WA


Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	32.03	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	32.03	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	32.03	Tons				KING

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 <p>WASTE MANAGEMENT</p>	
<p>U2906 10:00 AM 11-9-10</p>	
<p>Generators Name & Address: BOEING - KENT SPACE CENTER 20403 168th AVE SO. KENT, WA. 98032</p> <p>Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:</p>	
<p>Acknowledgement of Loading</p>	
<p>_____ Name (Please Print)</p> <p>_____ Signature</p>	<p>BOEING CO - KENT SPACE CENTER Company</p> <p>_____ Date</p>
<p>Deliver To:</p> <p>ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM</p>	<p>Disposal Facility:</p> <p>COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030</p>
<p>Transporter Name: ENVIRO CON + TRUCKING INC.</p> <p>Truck #: <u>E 20</u></p>	<p>Waste Profile # <u>105241WA</u></p> <p>Waste Type: <u>ADC</u></p> <p>Expiration Date: <u>10/27/11</u></p>
<p><u>Eric Hotchkiss</u> Driver's Name (Please Print)</p> <p><u>[Signature]</u> SIGNATURE</p> <p>Remarks: <u>WTL 2/T+P (20 MIN APPROX) TURNS</u></p>	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24600

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/03/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23
 Container
 Driver ~~HEATHER BOWMAN~~
 Check#
 Billing# 0000013
 Grid

Darren Carlson
DM

	Time	Scale	Operator	Inbound	Gross	
In	11/03/2010 11:47:53	SCALE 1	lmercer		106360	1b
Out	11/03/2010 11:47:53		lmercer		37760	1b
					Net	68600 1b
					Tons	34.30

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.30	Tons				
2 GONDOLA 16.10/TN-GONDOLA	100	34.30	Tons				
3 TRANS FEE \$16.53/TON-TRA	100	34.30	Tons				

Darren Carlson

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



WASTE MANAGEMENT

42906

10:00 AM
11/9/10

Generators Name & Address:

BOEING - KENT SPACE CENTER
20403 68TH AVE SO.
KENT, WA. 98032

Billing: BOEING

Contact Person: PAUL YOUNT

Contact Number: (253) 657-1914

Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - KENT SPACE CENTER
Company

Signature

Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 763-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241WA.

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson

Driver's Name (Please Print)

Darren Carlson

SIGNATURE

Remarks: WTL 2/T+P (20 MIN APPRET) TURNS



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24605

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/03/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	103760 lb
In	11/03/2010 13:01:08	SCALE 1	lmercer		Tare	41140 lb
Out	11/03/2010 13:01:08		lmercer		Net	62620 lb
					Tons	31.31

Comments ENV - LM (105241WA)


Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	31.31	Tons				
2 GONDOLA 16.10/TN-GONDOLA	100	31.31	Tons				
3 TRANS FEE \$16.53/TON-TRA	100	31.31	Tons				

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 <p>WASTE MANAGEMENT</p>	
<p>U2906 10:00 AM 11/9/10</p>	
<p>Generators Name & Address: Boeing - RENT SPACE CENTER 20403 68th AVE SO. KENT, WA 98032</p> <p>Billing: Boeing Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:</p>	
<p>Acknowledgement of Loading</p> <p>_____ Name (Please Print) BOEING CO - RENT SPACE CENTER Company</p> <p>_____ Signature _____ Date</p>	
<p>Deliver To:</p> <p>ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM</p>	<p>Disposal Facility:</p> <p>COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030</p>
<p>Transporter Name: ENVIRO CON + TRUCKING INC.</p> <p>Truck #: <u>E 20</u></p>	<p>Waste Profile # 105241WA.</p> <p>Waste Type: ADC</p> <p>Expiration Date: 10/27/11</p>
<p><u>Chris Hotchkiss</u> Driver's Name (Please Print)</p> <p><u>CHS</u> SIGNATURE</p> <p>Remarks: WTL 2/T+P (20 MIN APPROX) TURNS</p>	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24608

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/03/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Environn Environn
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/03/2010 13:17:28	SCALE 1	lmercer			107540 lb
Out	11/03/2010 13:17:28		lmercer		Tare	37760 lb
					Net	69780 lb
					Tons	34.89

Comments ENV - LM (105241WA)

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.89	Tons				
2 GONDOLA 16.10/TN-GONDOLA	100	34.89	Tons				
3 TRANS FEE \$16.53/TON-TRA	100	34.89	Tons				

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



U2906

10:00 AM
11/9/10

Generators Name & Address:

BOEING-KENT SPACE CENTER
20403 60TH AVE SO.
KENT, WA 98032

Billing: BOEING

Contact Person: PAUL YOUNT

Contact Number: (253) 657-1914

Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - KENT SPACE CENTER
Company

Signature

Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 783-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241WA.

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson
Driver's Name (Please Print)

Darren Carlson
SIGNATURE

Remarks: WTL 2/T+P (20 MIN APPRET) TURNS



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24615

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/03/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	103640 lb
In	11/03/2010 14:28:21	SCALE 1	lmercer		Tare	41140 lb
Out	11/03/2010 14:28:21		lmercer		Net	62500 lb
					Tons	31.25

Comments ENV - LM


Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	31.25	Tons				
2 GONDOLA 16.10/TN-GONDOLA	100	31.25	Tons				
3 TRANS FEE \$16.53/TON-TRA	100	31.25	Tons				

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 <p>WASTE MANAGEMENT</p>	
<p>U2906 10:00 PM 11/3/10</p>	
<p>Generators Name & Address: BOEING - RENT SPACE CENTER 20403 168th AVE SO. RENT, WA. 98032</p> <p>Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:</p>	
<p>Acknowledgement of Loading</p>	
<p>_____ Name (Please Print)</p> <p>_____ Signature</p>	<p>BOEING CO - RENT SPACE CENTER Company</p> <p>_____ Date</p>
<p>Deliver To:</p> <p>ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM</p>	<p>Disposal Facility:</p> <p>COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030</p>
<p>Transporter Name: ENVIRO CON + TRUCKING INC.</p> <p>Truck #: <u>E 20</u></p>	<p>Waste Profile # <u>105241WA</u></p> <p>Waste Type: <u>ADC</u></p> <p>Expiration Date: <u>10/27/11</u></p>
<p><u>Chris Hutchless</u> Driver's Name (Please Print)</p> <p><u>[Signature]</u> SIGNATURE</p> <p>Remarks: <u>WTL 2/TYP (20 MIN APPROX) TURNS</u></p>	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24617

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/03/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	110520 lb
In	11/03/2010 14:49:16	SCALE 1	lmercer		Tare	37760 lb
Out	11/03/2010 14:49:16		lmercer		Net	72760 lb
					Tons	36.38

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	36.38	Tons				
2 GONDOLA 16.10/TN-GONDOLA	100	36.38	Tons				
3 TRANS FEE \$16.53/TON-TRA	100	36.38	Tons				

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



U2906 10:00 AM
11/3/10

Generators Name & Address:
 BOEING-KENT SPACE CENTER
 20403 WBL AVE SO.
 KENT, WA. 98032

Billing: BOEING
 Contact Person: PAUL YOUNT
 Contact Number: (253) 657-1914
 Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - KENT SPACE CENTER
 Company

Signature

Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
 70 SOUTH ALASKA STREET
 SEATTLE, WASHINGTON 98134
 TELEPHONE #: (206) 763-5025
 MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
 RECYCLING FACILITY
 18177 CEDAR SPRINGS LANE
 ARLINGTON, OREGON 97812
 TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241 W.F.

Truck #: E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson

Driver's Name (Please Print)

Darren Carlson

SIGNATURE

Remarks: WTL 2/T+P (20 MIN APPRET) TURNS



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98124

Original
 Ticket# 24623

Ph: 206 763 6025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E22 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/04/2010 08:47:31	SCALE 1	lmercer			107700 lb
Out	11/04/2010 08:47:31		lmercer			37760 lb
					Net	69940 lb
					Tons	34.97

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.97	Tons				
2 GONDOLA 16.10/TN-GONDOLA	100	34.97	Tons				
3 TRANS FEE \$16.53/TON-TRA	100	34.97	Tons				

Darren Carlson

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



U2906 10:00 AM
11/3/10

Generators Name & Address:
BOEING - RENT SPACE CENTER
20403 60th AVE SO.
RENT, WA 98032

Billing: **BOEING**
 Contact Person: **PAUL YOUNT**
 Contact Number: **(253) 657-1914**
 Fax Number:

Acknowledgement of Loading

 Name (Please Print)

BOEING CO - RENT SPACE CENTER
 Company

 Signature

11-4-10
 Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
 70 SOUTH ALASKA STREET
 SEATTLE, WASHINGTON 98134
 TELEPHONE #: (206) 763-5025
 MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
 RECYCLING FACILITY
 18177 CEDAR SPRINGS LANE
 ARLINGTON, OREGON 97812
 TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # **105241WA**

Truck #: **E23**

Waste Type: **ADC**

Expiration Date: **10/27/11**

Darren Carlson
 Driver's Name (Please Print)

Darren Carlson
 SIGNATURE

Remarks: **WTL 2/T&P (20 MIN APPROX) TUBS**



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24624

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	105200 lb
In	11/04/2010 08:59:27	SCALE 1	lmercer		Tare	41140 lb
Out	11/04/2010 08:59:27		lmercer		Net	64120 lb
					Tons	32.06

Comments ENV - LM


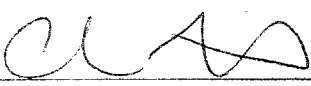
Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	32.06	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	32.06	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	32.06	Tons				KING

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 WASTE MANAGEMENT					
U2906 10:00 AM 11/3/10					
Generators Name & Address: BOEING - KENT SPACE CENTER 20403 LORR AVE SO. KENT, WA 98032 Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:					
Acknowledgement of Loading <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <hr/> Name (Please Print) </td> <td style="width: 50%; border: none;"> BOEING CO - KENT SPACE CENTER Company </td> </tr> <tr> <td style="border: none;"> <hr/> Signature </td> <td style="border: none;"> <hr/> 11-4-10 Date </td> </tr> </table>		<hr/> Name (Please Print)	BOEING CO - KENT SPACE CENTER Company	<hr/> Signature	<hr/> 11-4-10 Date
<hr/> Name (Please Print)	BOEING CO - KENT SPACE CENTER Company				
<hr/> Signature	<hr/> 11-4-10 Date				
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030				
Transporter Name: ENVIRO CON + TRUCKING INC. Truck #: E 20	Waste Profile # 105241WA. Waste Type: ADC. Expiration Date: 10/27/11				
Driver's Name (Please Print): Chris Hotchkiss  SIGNATURE Remarks: WTL 2/T+P (20 MIN APPROX) TURNS					



Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Original
Ticket# 24635

PH: 206 753 5025

Customer Name BOEING BOEING
Ticket Date 11/04/2010
Payment Type Credit Account
Manual Ticket#
Route AK
Hauling Ticket#
Destination
PO# 105241WA

Carrier Envirocon Envirocon
Vehicle# E23 Volume
Container
Driver DARREN CARLSON
Check#
Billing# 0000013
Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/04/2010 10:08:23	SCALE 1	lmercer		109520 lb	Tare 37760 lb
Out	11/04/2010 10:08:23		lmercer		Net 71760 lb	Tons 35.88

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	35.88	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	35.88	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	35.88	Tons				KING

Total Tax
Total Ticket

BILL OF LADING/SCALE TICKET



WASTE MANAGEMENT

U2906

10:00 AM
11/3/10

Generators Name & Address:

BOEING-RENT SPACE CENTER
20403 60th AVE SO.
RENT, WA 98032

Billing: BOEING

Contact Person: PAUL YOUNT

Contact Number: (253) 657-1914

Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - RENT SPACE CENTER
Company

Signature

11-4-10

Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 763-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC

Waste Profile # 105241WA

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson

Driver's Name (Please Print)

Darren Carlson

SIGNATURE

Remarks: WTL 2/TXP (20 MIN APPROX) TWENS



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24637

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	106720 lb
In	11/04/2010 10:19:27	SCALE 1	Imercer		Tare	41140 lb
Out	11/04/2010 10:19:27		Imercer		Net	65580 lb
					Tons	32.79

Comments ENV - LM


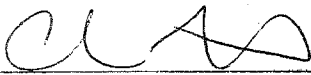
Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	32.79	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	32.79	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	32.79	Tons				KING

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 WASTE MANAGEMENT	
U2906 10:00 AM 11/3/10	
Generators Name & Address: BOEING-KENT SPACE CENTER 20403 68th AVE SO. KENT, WA 98032 Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
_____ Name (Please Print)	BOEING CO - KENT SPACE CENTER Company
_____ Signature	11-4-10 Date
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC. Truck #: F 20	Waste Profile # 105241WA. Waste Type: ADC Expiration Date: 10/27/11
Chris Hotchkiss Driver's Name (Please Print)	
 SIGNATURE	
Remarks: WTL 2/T+P (20 MIN APPRET) TURNS	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24642
 Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E22 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	109100 lb
In	11/04/2010 11:23:33	SCALE 1	lmercer		Tare	37760 lb
Out	11/04/2010 11:23:33		lmercer		Net	71340 lb
					Tons	35.67

Comments ENV -- LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	35.67	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	35.67	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	35.67	Tons				KING

Darren Carlson

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



U2906

10:00 AM
11/3/10

Generators Name & Address:

BOEING-RENT SPACE CENTER
20403 168th AVE SO.
RENT, WA 98032

Billing: BOEING

Contact Person: PAUL YOUNT

Contact Number: (253) 657-1914

Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - RENT SPACE CENTER
Company

Signature

11-4-10

Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 763-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241 WA.

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson

Driver's Name (Please Print)

Darren Carlson

SIGNATURE

Remarks: WTL 2/T&P (20 MIN APPRET) TWENS



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24643
 PH: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/04/2010 11:34:44	SCALE 1	Imrcer		Tare	106100 lb 41140 lb
Out	11/04/2010 11:34:44		imrcer		Net	64960 lb
					Tons	32.48

Comments ENV - LM


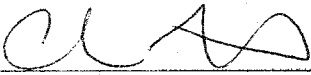
Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover--PCS--Tons--Pet	100	32.48	Tons				KING
2 GONDOLA 16.10/TN--GONDOLA	100	32.48	Tons				KING
3 TRANS FEE \$16.53/TON--TRA	100	32.48	Tons				KING

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 WASTE MANAGEMENT	
U2906 10:00 AM 11/3/10	
Generators Name & Address: BOEING - RENT SPACE CENTER 20403 68th AVE SO. RENT, WA 98032 Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
_____ Name (Please Print)	BOEING CO - RENT SPACE CENTER Company
_____ Signature	11-4-10 Date
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC. Truck #: E 20	Waste Profile # 105241WA. Waste Type: ADC Expiration Date: 10/27/11
Chris Hotchkiss Driver's Name (Please Print)	
 SIGNATURE	
Remarks: WTL 2/T+P (20 MIN APPROX) TURNS	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24654

PH: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/04/2010 12:51:57	SCALE 1	lmercer			105460 lb
Out	11/04/2010 12:51:57		lmercer			37760 lb
					Net	67700 lb
					Tons	33.85

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	33.85	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	33.85	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	33.85	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



U 2906

10:00 AM
11/3/10

Generators Name & Address:

BOEING-RENT SPACE CENTER
20403 68TH AVE SO.
RENT, WA 98032

Billing: BOEING

Contact Person: PAUL YOUNT

Contact Number: (253) 657-1914

Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - RENT SPACE CENTER
Company

Signature

Date

11-4-10

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 763-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241WA

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson

Driver's Name (Please Print)

Darren Carlson

SIGNATURE

Remarks: WTL 2 (T+P (20 MIN APPRXT) TWENS



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24655
 Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/04/2010 13:04:20	SCALE 1	Imercer		Tare	107320 lb 41140 lb
Out	11/04/2010 13:04:20		Imercer		Net	66180 lb
					Tons	33.09

Comments ENV -- LM


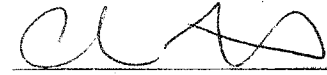
Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	33.09	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	33.09	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	33.09	Tons				KING

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 <p>WASTE MANAGEMENT</p>	
<p>U2906 10:00 AM 11/9/10</p>	
<p>Generators Name & Address: BOEING - KENT SPACE CENTER 20403 168th AVE SO. KENT, WA 98032</p> <p>Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:</p>	
<p>Acknowledgement of Loading</p>	
<p>_____ Name (Please Print)</p> <p>_____ Signature</p>	<p>BOEING CO - KENT SPACE CENTER Company</p> <p>11-4-10 Date</p>
<p>Deliver To:</p> <p>ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM</p>	<p>Disposal Facility:</p> <p>COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030</p>
<p>Transporter Name: ENVIRO CON + TRUCKING INC.</p> <p>Truck #: E 20</p>	<p>Waste Profile # 105241WA.</p> <p>Waste Type: ADC.</p> <p>Expiration Date: 10/27/11</p>
<p>Chris Hotchkiss Driver's Name (Please Print)</p> <p> SIGNATURE</p> <p>Remarks: WTL 2/T&P (20 MIN APPROX) TURNS</p>	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24038
 Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/04/2010 14:07:12	SCALE 1	lmercer			107720 lb
Out	11/04/2010 14:07:12		lmercer			37760 lb
					Net	69960 lb
					Tons	34.98

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.98	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	34.98	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	34.98	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



WASTE MANAGEMENT

U2906

10:00 AM
11/3/10

Generators Name & Address:

BOEING-KENT SPACE CENTER
20403 68TH AVE SO.
KENT, WA 98032

Billing: BOEING

Contact Person: PAUL YOUNT

Contact Number: (206) 657-1914

Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - KENT SPACE CENTER
Company

Signature

11-4-10
Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 763-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241WA.

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson

Driver's Name (Please Print)

Darren Carlson

SIGNATURE

Remarks: WTL 2/T&P (20 MIN APPRET) TURNS



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24659
 Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/04/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E20 Volume
 Container
 Driver CHRIS HOTCHKISS
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	104720 lb
In	11/04/2010 14:15:56	SCALE 1	lmercer		Tare	41140 lb
Out	11/04/2010 14:15:56		lmercer		Net	63580 lb
					Tons	31.79

Comments ENV - LM


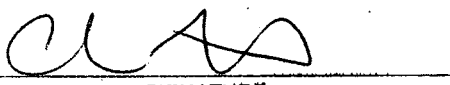
Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	31.79	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	31.79	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	31.79	Tons				KING

203WM

Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 WASTE MANAGEMENT	
U2906 10:00 PM 11/9/10	
Generators Name & Address: BOEING - RENT SPACE CENTER 20403 168th AVE SO. RENT, WA. 98032	
Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
_____ Name (Please Print)	BOEING CO - RENT SPACE CENTER Company
_____ Signature	11-4-10 Date
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA.
Truck #: <u>F 20</u>	Waste Type: <u>ADC</u>
	Expiration Date: <u>10/27/11</u>
<u>Chris Hotchkiss</u> Driver's Name (Please Print)	
 SIGNATURE	
Remarks: <u>WTL 2/T&P (20 MIN APPRET) TURNS</u>	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24661

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/05/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	108120 lb
In	11/05/2010 08:41:24	SCALE 1	lmercer		Tare	37760 lb
Out	11/05/2010 08:41:24		lmercer		Net	70360 lb
					Tons	35.18

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	35.18	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	35.18	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	35.18	Tons				KING

Darren Carlson

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



WASTE MANAGEMENT

U2906

10:00 AM
11/5/10

Generators Name & Address:

BOEING-KENT SPACE CENTER
20403 163RD AVE SO.
KENT, WA. 98032

Billing: BOEING

Contact Person: PAUL YOUNT

Contact Number: (206) 657-1914

Fax Number:

Acknowledgement of Loading

Name (Please Print)

BOEING CO - KENT SPACE CENTER
Company

Signature

11-5-10
Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 763-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241 W.F.

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11

Darren Carlson

Driver's Name (Please Print)

Darren Carlson

SIGNATURE

Remarks: WTL 2/T+P (20 MIN APPROX) TURNS



Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Original
Ticket# 24663

Ph: 206 763 5025

Customer Name BOEING BOEING
Ticket Date 11/05/2010
Payment Type Credit Account
Manual Ticket#
Route AK
Hauling Ticket#
Destination
PO# 105241WA

Carrier Envirocon Envirocon
Vehicle# E18 Volume
Container
Driver CHAD HUBBARD
Check#
Billing# 0000013
Grid


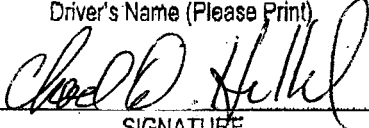
	Time	Scale	Operator	Inbound	Gross	105140 lb
In	11/05/2010 09:00:04	SCALE 1	lmercer		Tare	38040 lb
Out	11/05/2010 09:20:04		lmercer		Net	67100 lb
					Tons	33.55

Comments ENV - LM

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	33.55	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	33.55	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	33.55	Tons				KING

Total Tax
Total Ticket

BILL OF LADING/SCALE TICKET

 WASTE MANAGEMENT	
U2906 10:00 AM 11/9/10	
Generators Name & Address: BOEING-KENT SPACE CENTER 20403 60TH AVE SO. KENT, WA. 98032	
Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
Name (Please Print) <hr/> Signature	BOEING CO - KENT SPACE CENTER Company 11-5-10 Date
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA.
Truck #: E18	Waste Type: ADC Expiration Date: 10/27/11
Driver's Name (Please Print) Chad Hubbard <hr/>  SIGNATURE	
Remarks: WTL 2/T+P (20 MIN APPROX) TURNS	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24665
 Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/05/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid



	Time	Scale	Operator	Inbound	Gross	106440 lb
In	11/05/2010 10:16:06	SCALE 1	lmercer		Tare	37760 lb
Out	11/05/2010 10:16:06		lmercer		Net	68680 lb
					Tons	34.34

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.34	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	34.34	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	34.34	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

	
U2906 10:00 AM 11/3/10	
Generators Name & Address: BOEING-KENT SPACE CENTER 20403 68TH AVE SO. KENT, WA. 98032	
Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
Name (Please Print) _____	BOEING CO - KENT SPACE CENTER Company
Signature _____	11-5-10 Date
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA
Truck #: E23	Waste Type: ADC
Expiration Date: 10/27/11	
Driver's Name (Please Print): Darren Carlson	
SIGNATURE: 	
Remarks: WTL 2/T+P (20 MIN APPRET) TUBS	



Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Original
Ticket# 24669
Ph: 206 763 5025

Customer Name BOEING BOEING
Ticket Date 11/05/2010
Payment Type Credit Account
Manual Ticket#
Route AK
Hauling Ticket#
Destination
PO# 105241WA

Carrier Envirozon Envirozon
Vehicle# E18 Volume
Container
Driver CHAD HUBBARD
Check#
Billing# 0000013
Grid


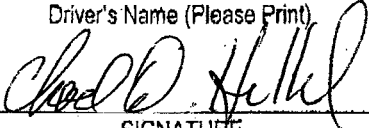
	Time	Scale	Operator	Inbound	Gross	
In	11/05/2010 11:20:01	SCALE 1	Imercer		104560 lb	Tare 38040 lb
Out	11/05/2010 11:20:01		Imercer		66520 lb	Net Tons 33.26

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	33.26	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	33.26	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	33.26	Tons				KING

Total Tax
Total Ticket

BILL OF LADING/SCALE TICKET

 WASTE MANAGEMENT	
U2906 10:00 AM 11/3/10	
Generators Name & Address: Boeing-Kent Space Center 20403 68th Ave So. Kent, WA 98032	
Billing: Boeing Contact Person: Paul Yount Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
_____ Name (Please Print)	Boeing Co - Kent Space Center Company
_____ Signature	11-5-10 Date
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA
Truck #: E18	Waste Type: ADC
	Expiration Date: 10/27/11
Chad Hubbard Driver's Name (Please Print)	
 SIGNATURE	
Remarks: WTL 2/T+P (20 MIN APPROX) TURNS	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24670

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/05/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid


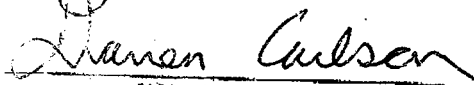
	Time	Scale	Operator	Inbound	Gross	
In	11/05/2010 11:51:58	SCALE 1	lmercer		Tare	108120 lb 37760 lb
Out	11/05/2010 11:51:58		lmercer		Net	70360 lb
					Tons	35.18

Comments ENVIROCON YE
 PROFILE 105241WA

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	35.18	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	35.18	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	35.18	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

	
U2906 10:00 AM 11/8/10	
Generators Name & Address: BOEING-KENT SPACE CENTER 20403 63RD AVE SO. KENT, WA. 98032	
Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (206) 657-1914 Fax Number:	
Acknowledgement of Loading	
Name (Please Print) _____	BOEING CO - KENT SPACE CENTER Company
Signature _____	11-5-10 Date
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA
Truck #: E23	Waste Type: ADC
Driver's Name (Please Print) Darren Carlson	
 SIGNATURE	
Remarks: WTL 2/T+P (20 MIN APPROX) TURNS	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24672

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/05/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E18 Volume
 Container
 Driver CHAD HUBBARD
 Check#
 Billing# 0000013
 Grid


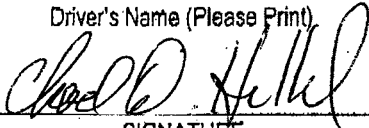
	Time	Scale	Operator	Inbound	Gross	103280 lb
In	11/05/2010 12:46:02	SCALE 1	lmercer		Tare	38040 lb
Out	11/05/2010 12:46:02		lmercer		Net	65240 lb
					Tons	32.62

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	32.62	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	32.62	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	32.62	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

 <p>WASTE MANAGEMENT</p>									
<p>U2906 10:00 AM 11/3/10</p>									
<p>Generators Name & Address: BOEING - RENT SPACE CENTER 20403 LOCKER AVE SO. RENT, WA. 98032</p> <p>Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:</p>									
<p>Acknowledgement of Loading</p> <table style="width: 100%;"> <tr> <td style="width: 50%; border-bottom: 1px solid black;">Name (Please Print)</td> <td style="width: 50%; text-align: center;">BOEING CO - RENT SPACE CENTER</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Signature</td> <td style="text-align: center;">Company</td> </tr> <tr> <td></td> <td style="text-align: center;">11-5-10</td> </tr> <tr> <td></td> <td style="text-align: center;">Date</td> </tr> </table>		Name (Please Print)	BOEING CO - RENT SPACE CENTER	Signature	Company		11-5-10		Date
Name (Please Print)	BOEING CO - RENT SPACE CENTER								
Signature	Company								
	11-5-10								
	Date								
<p>Deliver To:</p> <p>ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM</p>	<p>Disposal Facility:</p> <p>COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030</p>								
<p>Transporter Name: ENVIRO CON + TRUCKING INC.</p> <p>Truck #: E18</p>	<p>Waste Profile # 105241WA.</p> <p>Waste Type: ADC</p> <p>Expiration Date: 10/27/11</p>								
<p style="text-align: center;">Chad Hubbard Driver's Name (Please Print)</p> <p style="text-align: center;"> SIGNATURE</p> <p>Remarks: WTL 2/T+P (20 MIN APPROX) TURNS</p>									



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24682
 Ph: 206.763.5025

Customer Name BOEING BOEING
 Ticket Date 11/08/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination

Carrier Envirocon Envirocon
 Vehicle# E23 Volume
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

PO# 105241WA



	Time	Scale	Operator	Inbound	Gross	108560 lb
In	11/08/2010 11:23:27	SCALE 1	lmercer		Tare	37760 lb
Out	11/08/2010 11:23:27		lmercer		Net	70800 lb
					Tons	35.40

Comments ECTI YE
 PROFILE 105241WA

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	35.40	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	35.40	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	35.40	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

	
U2906 10:00 AM 11/5/10	
Generators Name & Address: BOEING - RENT SPACE CENTER 20403 68TH AVE SO. RENT, WA. 98032	
Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
Name (Please Print) _____	BOEING CO - RENT SPACE CENTER Company
Signature _____	Date _____
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA.
Truck #: <u>E23</u>	Waste Type: ADC
Expiration Date: 10/27/11	
Darren Carlson Buyer's Name (Please Print)	
 SIGNATURE	
Remarks: WTL 2/T+P (20 MIN APPROX) TURNS	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24683

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/08/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PD# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E18 Volume
 Container
 Driver CHAD HUBBARD
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	105540 lb
In	11/08/2010 11:41:23	SCALE 1	lmercer		Tare	38040 lb
Out	11/08/2010 11:41:23		lmercer		Net	67500 lb
					Tons	33.75

Comments ECTI YE

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	33.75	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	33.75	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	33.75	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



Generators Name & Address:
BOEING - KENT SPACE CENTER
20403 168th AVE SO.
KENT, WA 98032

Billing: **BOEING**
 Contact Person: **PAUL YOUNT**
 Contact Number: **(253) 657-1914**
 Fax Number:

Acknowledgement of Loading

 Name (Please Print) **BOEING CO - KENT SPACE CENTER**
 Company

 Signature **11-5-10**
 Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
 70 SOUTH ALASKA STREET
 SEATTLE, WASHINGTON 98134
 TELEPHONE #: (206) 763-5025
 MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
 RECYCLING FACILITY
 18177 CEDAR SPRINGS LANE
 ARLINGTON, OREGON 97812
 TELEPHONE: (541) 454-2030

Transporter Name:
ENVIRO CON + TRUCKING INC.

Truck #: **E18**

Waste Profile # 105241WA.

Waste Type: ADC

Expiration Date: 10/27/11

Chad Hubbard
 Driver's Name (Please Print)

Chad Hubbard
 SIGNATURE

Remarks: **WTL 2/T+P (20 MIN APPROX) TURNS**



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24687
 Ph: 206 763 5035

Customer Name BOEING BOEING Carrier Envirocon Envirocon
 Ticket Date 11/08/2010 Vehicle# E23 Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver DARREN CARLSON
 Route AK Check#
 Hauling Ticket# Billing# 0000013
 Destination Grid
 PO# 105241WA

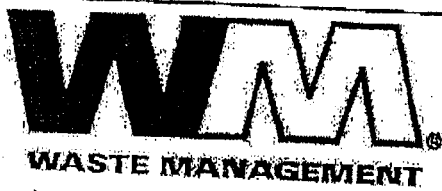
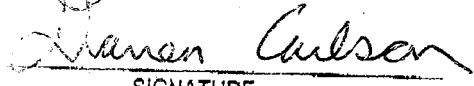
	Time	Scale	Operator	Inbound	Gross	
In	11/08/2010 12:40:18	SCALE 1	lmercer		106840 lb	
Out	11/08/2010 12:40:18		lmercer		37760 lb	
					Net	69080 lb
					Tons	34.54

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.54	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	34.54	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	34.54	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

	
U2906 10:00 AM 11/8/10	
Generators Name & Address: BOEING-RENT SPACE CENTER 20403 68TH AVE SO. RENT, WA. 98032	
Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
Name (Please Print) _____	BOEING CO - RENT SPACE CENTER Company
Signature _____	Date _____
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA.
Truck #: <u>E23</u>	Waste Type: ADC.
Expiration Date: 10/27/11	
Darren Carlson Driver's Name (Please Print)	
 SIGNATURE	
Remarks: WTL 2/T+P (20 MIN APPRET) TURNS	



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24689

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/08/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E18 Volume
 Container
 Driver CHAD HUBBARD
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/08/2010 13:33:50	SCALE 1	Imercer		106080	1b
Out	11/08/2010 13:33:50		Imercer		Tare	39040 1b
					Net	69040 1b
					Tons	34.02

Comments ENV - LM

Product	LD%	Qty	UCM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.02	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	34.02	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	34.02	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



Generators Name & Address:
BOEING-KENT SPACE CENTER
20403 168th AVE SO.
KENT, WA 98032

Billing: **BOEING**
 Contact Person: **PAUL YOUNT**
 Contact Number: **(203) 657-1914**
 Fax Number:

Acknowledgement of Loading

 Name (Please Print)

 Signature

BOEING CO - KENT SPACE CENTER
 Company
11-5-10
 Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
 70 SOUTH ALASKA STREET
 SEATTLE, WASHINGTON 98134
 TELEPHONE #: (206) 763-5025
 MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
 RECYCLING FACILITY
 18177 CEDAR SPRINGS LANE
 ARLINGTON, OREGON 97812
 TELEPHONE: (541) 454-2030

Transporter Name:
ENVIRO CON + TRUCKING INC.

Waste Profile # **105241WA.**

Truck #: **E18**

Waste Type: **ADC**

Expiration Date: **10/27/11**

Chad Hubbard

Driver's Name (Please Print)

Chad D. Hubbard
 SIGNATURE

Remarks: **WTL 2/T+P (20 MIN APPROX) TURNS**



Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Original
Ticket# 24690

Ph: 206 763 5025

Customer Name BOEING BOEING
Ticket Date 11/08/2010
Payment Type Credit Account
Manual Ticket#
Route AK
Hauling Ticket#
Destination
PO# 105241WA

Carrier Envirocon Envirocon
Vehicle# E23 Volume
Container
Driver DARREN CARLSON
Check#
Billing# 0000013
Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/08/2010 13:51:29	SCALE 1	lmercer		Yare	106160 lb
Out	11/08/2010 13:51:29		lmercer		Net	37760 lb
					Tons	68400 lb
						34.20

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.20	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	34.20	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	34.20	Tons				KING

Total Tax
Total Ticket

BILL OF LADING/SCALE TICKET



U2906 10:00 AM
11/8/10

Generators Name & Address:
BOEING-KENT SPACE CENTER
20403 60TH AVE SO.
KENT, WA. 98032

Billing: **BOEING**
 Contact Person: **PAUL YOUNT**
 Contact Number: **(253) 657-1914**
 Fax Number:

Acknowledgement of Loading

Name (Please Print) _____

BOEING CO - KENT SPACE CENTER
 Company

Signature _____

Date _____

Deliver To:
 ALASKA RELOAD & RECYCLING FACILITY
 70 SOUTH ALASKA STREET
 SEATTLE, WASHINGTON 98134
 TELEPHONE #: (206) 763-5025
 MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:
 COLUMBIA RIDGE LANDFILL AND
 RECYCLING FACILITY
 18177 CEDAR SPRINGS LANE
 ARLINGTON, OREGON 97812
 TELEPHONE: (541) 454-2030

Transporter Name:
ENVIRO CON + TRUCKING INC

Waste Profile # **105241WA**

Truck #: **E23**

Waste Type: **ADC**

Expiration Date: **10/27/11**

Darren Carlson
 Driver's Name (Please Print)

Darren Carlson
 SIGNATURE

Remarks: **WT 2/T&P (20 MIN APPROX) TURNS**



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24691

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/08/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E10 Volume
 Container
 Driver CHAD HUBBARD
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	
In	11/08/2010 14:55:37	SCALE 1	lmercer		Tare	107680 lb 38040 lb
Out	11/08/2010 14:55:37		lmercer		Net	69640 lb
					Tons	34.82

Comments ENV - LM

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	34.82	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	34.82	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	34.82	Tons				KING

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET



Generators Name & Address:
Boeing - KENT SPACE CENTER
20403 60th AVE SO.
KENT, WA. 98032

Billing: **Boeing**
 Contact Person: **PAUL YOUNT**
 Contact Number: **(253) 657-1914**
 Fax Number:

Acknowledgement of Loading

Name (Please Print) _____ **BOEING CO - KENT SPACE CENTER**
 Company
 Signature _____ **11-5-10**
 Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
 70 SOUTH ALASKA STREET
 SEATTLE, WASHINGTON 98134
 TELEPHONE #: (206) 763-5025
 MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY
 18177 CEDAR SPRINGS LANE
 ARLINGTON, OREGON 97812
 TELEPHONE: (541) 454-2030

Transporter Name:
ENVIRO CON + TRUCKING INC.

Truck #: **E18**

Waste Profile # 105241WA.

Waste Type: ADC

Expiration Date: 10/27/11

Chad Hubbard
 Driver's Name (Please Print)

Chad D. Hubbard
 SIGNATURE

Remarks: **WTL 2/T+P (20 MIN APPRET) TURNS**



Alaska Street
 70 S Alaska Street
 Seattle, WA, 98134

Original
 Ticket# 24692

Ph: 206 763 5025

Customer Name BOEING BOEING
 Ticket Date 11/08/2010
 Payment Type Credit Account
 Manual Ticket#
 Route AK
 Hauling Ticket#
 Destination
 PO# 105241WA

Carrier Envirocon Envirocon
 Vehicle# E23
 Container
 Driver DARREN CARLSON
 Check#
 Billing# 0000013
 Grid

	Time	Scale	Operator	Inbound	Gross	107760 lb
In	11/08/2010 15:06:05	SCALE 1	Imercer		Tare	37760 lb
Out	11/08/2010 15:06:05		Imercer		Net	70000 lb
Comments	ENV - LM				Tons	35.00


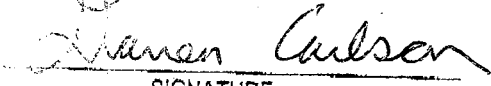
Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 Daily Cover--PCS-Tons-Pet	100	35.00	Tons				
2 GONDOLA 16.10/TN-GONDOLA	100	35.00	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	35.00	Tons				KING
							KING

Darren Carlson

203WM
 Driver's Signature

Total Tax
 Total Ticket

BILL OF LADING/SCALE TICKET

	
U2906 10:00 AM 11/8/10	
Generators Name & Address: BOEING-KENT SPACE CENTER 20403 68TH AVE SO. KENT, WA. 98032	
Billing: BOEING Contact Person: PAUL YOUNT Contact Number: (253) 657-1914 Fax Number:	
Acknowledgement of Loading	
Name (Please Print) _____	BOEING CO - KENT SPACE CENTER Company
Signature _____	Date _____
Deliver To: ALASKA RELOAD & RECYCLING FACILITY 70 SOUTH ALASKA STREET SEATTLE, WASHINGTON 98134 TELEPHONE #: (206) 763-5025 MONDAY-FRIDAY 7:00AM-4:00PM	Disposal Facility: COLUMBIA RIDGE LANDFILL AND RECYCLING FACILITY 18177 CEDAR SPRINGS LANE ARLINGTON, OREGON 97812 TELEPHONE: (541) 454-2030
Transporter Name: ENVIRO CON + TRUCKING INC.	Waste Profile # 105241WA.
Truck #: <u>E23</u>	Waste Type: ADC.
Expiration Date: 10/27/11	
Darren Carlson Driver's Name (Please Print)	
 SIGNATURE	
Remarks: WT 2/T+P (20 MIN APPRET) TUBS	



ALASKA STREET RELOAD FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
(206) 763-5025

SCALE TICKET

51786

11-9-10
7:07AM
IN OUT

CUSTOMER BILLED Boeing Kent
PO# ~~102~~ 105241WA DRIVER ON OFF

GROSS 96,680#
TARE 37,760#
NET 58,920#
AMOUNT 29.46 tons
WEIGHER Emmanuel

HAULED Envirocon SIZE 1
E23 R.T.# Darren Carlson RECEIPT# Darren Carlson



Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Original Ticket# 24769
Ph: 206 763 5025

Customer Name BOEING BOEING
Ticket Date 11/09/2010
Payment Type Credit Account
Manual Ticket# 51786
Route AK
Hauling Ticket#
Destination
PO# 105241WA

Carrier Envirocon Envirocon
Vehicle# E23 Volume
Container
Driver DARREN CARLSON
Check#
Billing# 0000013
Grid

Time	Scale	Operator	Inbound	Gross	96680 lb*
In 11/09/2010 09:07:00	SCALE 1	lmercer		Tare	37760 lb*
Out 11/09/2010 09:07:00		lmercer		Net	58920 lb
		x Manual Weight		Tons	29.46

Comments EMV - LM (RE: MANUAL TICKET # 51786)

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Daily Cover-PCS-Tons-Pet	100	29.46	Tons				KING
2 GONDOLA 16.10/TN-GONDOLA	100	29.46	Tons				KING
3 TRANS FEE \$16.53/TON-TRA	100	29.46	Tons				KING

Total Tax
Total Ticket

203WM
Driver's Signature

BILL OF LADING/SCALE TICKET



WASTE MANAGEMENT

U2906 10:00 AM 11/8/10

Generators Name & Address:
BOEING-KENT SPACE CENTER
20403 168th AVE SO.
KENT, WA. 98032

Billing: BOEING
Contact Person: PAUL YOUNT
Contact Number: (206) 657-1914
Fax Number:

Acknowledgment of Loading

Name (Please Print)

BOEING CO - KENT SPACE CENTER
Company

Signature

11-9-10
Date

Deliver To:

ALASKA RELOAD & RECYCLING FACILITY
70 SOUTH ALASKA STREET
SEATTLE, WASHINGTON 98134
TELEPHONE #: (206) 763-5025
MONDAY-FRIDAY 7:00AM-4:00PM

Disposal Facility:

COLUMBIA RIDGE LANDFILL AND
RECYCLING FACILITY
18177 CEDAR SPRINGS LANE
ARLINGTON, OREGON 97812
TELEPHONE: (541) 454-2030

Transporter Name:

ENVIRO CON + TRUCKING INC.

Waste Profile # 105241WA

Truck #:

E23

Waste Type: ADC

Expiration Date: 10/27/11



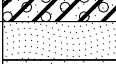









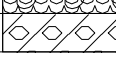
Warren Carlson
Driver's Name (Please Print)



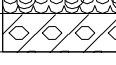
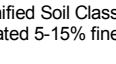
Warren Carlson
SIGNATURE

Remarks: WTL 2/T+P (20 MIN APPRBT) TURNS

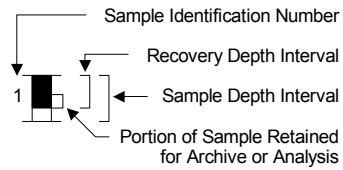


Exploration Logs

Soil Classification System

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

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	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="width: 10%;">Code</th> <th style="width: 90%;">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>Vibrocore (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	Vibrocore (Rotasonic/Geoprobe)	5	Other - See text if applicable		<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">Code</th> <th style="width: 90%;">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
Code	Description																																																					
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c	Shelby Tube																																																					
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PP = 1.0	Pocket Penetrometer, tsf																																																					
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AL	Atterberg Limits - See separate figure for data																																																					
GT	Other Geotechnical Testing																																																					
CA	Chemical Analysis																																																					
Groundwater																																																						
		Approximate water level at time of drilling (ATD)																																																				
		Approximate water level at time other than ATD																																																				

DP-01

SAMPLE DATA

SOIL PROFILE

GROUNDWATER

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Drilling Method: <u>Geoprobe™</u>	Ground Elevation (ft): _____	Water Level
0										
1	1	d3		0.0		SP/SM	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, damp) [Fill]			
2										
3	2	d3		0.0		ML	Gray, SILT with clay (no odor, no sheen) (medium stiff, wet) [Native]			▽ ATD
4										
5	3	d3		0.0						
6										
7	4	d3		0.0						
8										
9										
10	5	d3		-		SP	Gray, silty, fine SAND (no odor, no sheen) (medium dense, wet)			
11										
12										
13										
14										
15										
16										
17										
18										
19										
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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



Project Striker
Kent, Washington

Log of Boring DP-01

Figure
F-2
(1 of 2)

DP-01

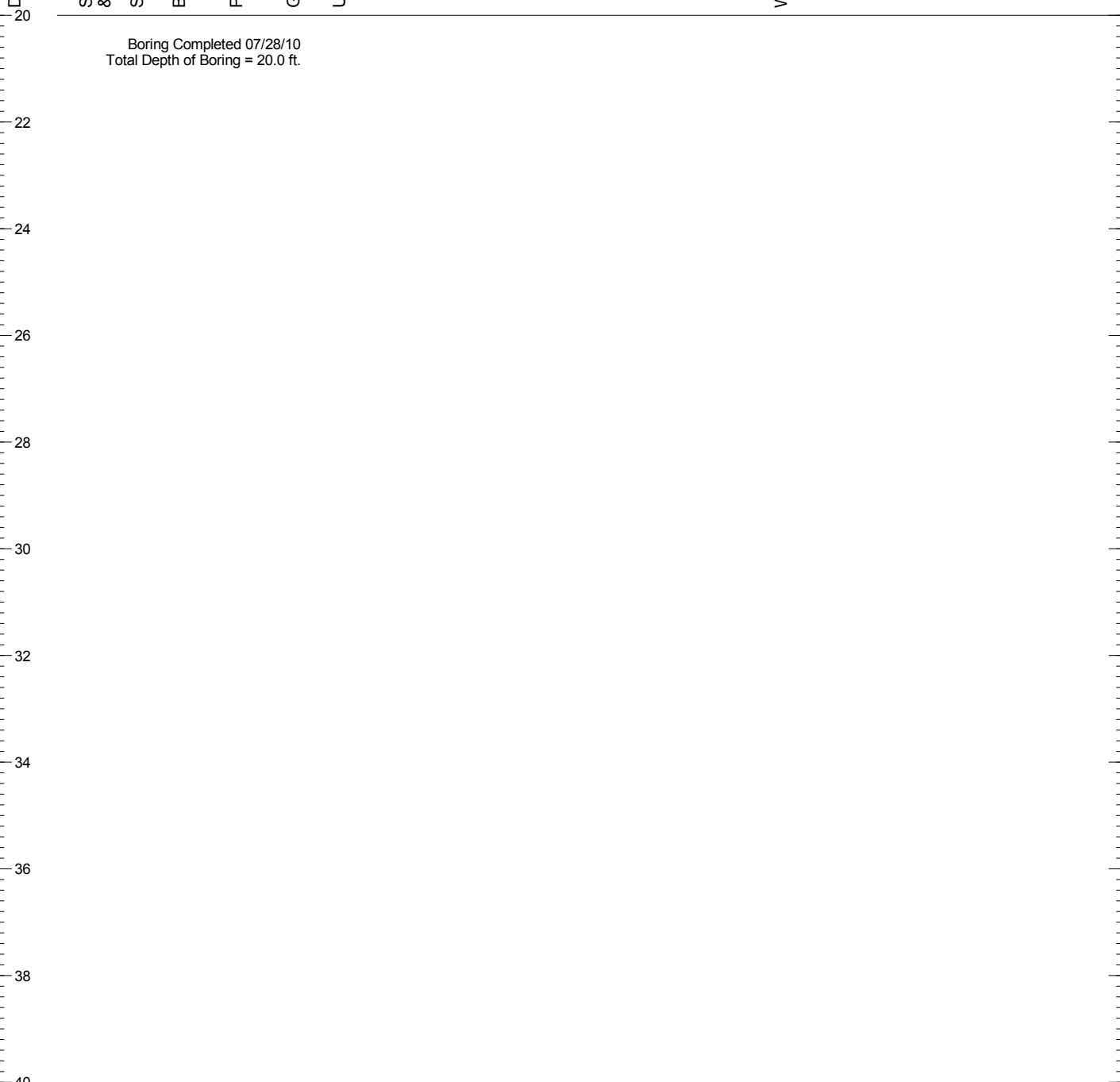
SAMPLE DATA

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
------------	--------------------------	--------------	------------	-----------	----------------	-------------	-----------------------------------	------------------------------	-------------

Boring Completed 07/28/10
Total Depth of Boring = 20.0 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



Project Striker
Kent, Washington

Log of Boring DP-01

Figure
F-2
(2 of 2)

DP-02

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
0					[Dotted Pattern]	SP/SM	Brown, fine SAND with silt and gravel (no odor, no sheen) (medium dense, damp) [Fill]		
2	1	d3		0.0	[Dotted Pattern]	SP/SM	Gray, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, moist to wet)		
4					[Dotted Pattern]	SP/SM	Gray, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, moist to wet)		
6	2	d3		0.0	[Dotted Pattern]	SP/SM	Gray, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, moist to wet)		
8					[Horizontal Lines]	ML	Gray, SILT with clay and organics (no odor, no sheen) (medium stiff, wet) [Native]		▽ ATD
10	3	d3		0.0	[Horizontal Lines]	ML	Gray, SILT with clay and organics (no odor, no sheen) (medium stiff, wet) [Native]		
12					[Horizontal Lines]	ML	Gray, SILT with clay and organics (no odor, no sheen) (medium stiff, wet) [Native]		
14	4	d3		0.0	[Horizontal Lines]	ML	Gray, SILT with clay and organics (no odor, no sheen) (medium stiff, wet) [Native]		
16					[Horizontal Lines]	ML	Gray, SILT with clay and organics (no odor, no sheen) (medium stiff, wet) [Native]		
18	5	d3		0.0	[Horizontal Lines]	ML	Gray, SILT with clay and organics (no odor, no sheen) (medium stiff, wet) [Native]		
20					[Horizontal Lines]	ML	Gray, SILT with clay and organics (no odor, no sheen) (medium stiff, wet) [Native]		

- 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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Log of Boring DP-02

Figure
F-3
(1 of 2)

DP-02

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
20						ML			
22	6	d3		0.0		SP/ SM			
24									
Boring Completed 07/29/10 Total Depth of Boring = 24.0 ft.									
26									
28									
30									
32									
34									
36									
38									
40									

- 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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Log of Boring DP-02

Figure
F-3
(2 of 2)

DP-03

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									
1	1	d3		0.0		SP/SM	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, moist to wet) [Fill]		
2									
3	2	d3		35					
4									
5									
6									
7									
8						SP/SM	Gray, fine to medium SAND with silt and gravel (odor, sheen) (medium dense, wet)		▽ ATD
9									
10	3	d3		20		SP/SM	Brown to gray, fine to medium SAND with silt, clay and gravel (odor, no sheen) (medium dense, wet)		
11									
12							-No recovery from 12-16 ft		
13									
14	4	d3		--					
15									
16									

Boring Completed 07/29/10
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.

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Log of Boring DP-03

Figure
F-4

DP-04

SAMPLE DATA		SOIL PROFILE				GROUNDWATER		
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Description	Water Level
0							Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____	
2	1	d3		0.0	[Fill]	SM	Brown, silty, fine SAND with gravel (no odor, no sheen) (medium dense, damp to moist) [Fill]	
6	2	d3		0.0	[Native]	ML	Brown, SILT with sand and gravel (no odor, no sheen) (medium stiff, wet) [Native]	▽ ATD
8					[Native]	ML	Gray, SILT with sand and gravel (no odor, no sheen) (medium stiff, wet)	
10	3	d3		0.0	[Native]	SP	Gray, fine to medium SAND with gravel (no odor, no sheen) (medium dense, wet)	
12					[Native]	ML	Gray, SILT with clay (no odor, no sheen) (medium stiff, wet)	

Boring Completed 07/29/10
Total Depth of Boring = 12.0 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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Log of Boring DP-04

Figure
F-5

DP-05

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
0									
2	1	d3		0.0	[Fill]	SP/SM	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, damp) [Fill]		
4					[Dotted]	SM	Brown, silty, fine to medium SAND with gravel (no odor, no sheen) (medium dense, damp)		
6	2	d3		0.0	[Dotted]	SP/SM	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, moist to wet)		
8					-No recovery 8-16 ft		▽ ATD		
10	3	d3		--					
12									
14	4	d3		--					
16									

Boring Completed 07/29/10
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.

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Log of Boring DP-05

Figure
F-6

DP-07

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
0					[Dotted Pattern]	SP			
2	1	d3		0.0	[Vertical Line]	SP/SM			
4					[Vertical Line]				▽ ATD
6	2	d3		0.0	[Vertical Line]	ML			
8									

Boring Completed 07/29/10
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.

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Log of Boring DP-07

Figure
F-7

DP-08

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
0						AC	Asphalt		
1	1	d3		0.0		SP/SM	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, damp to moist) [Fill]		
2									
4									
6	2	d3		0.0		ML	Gray, SILT with clay (no odor, no sheen) (medium stiff, wet) [Native]	▽ ATD	
8									

Boring Completed 07/29/10
Total Depth of Boring = 8.0 ft.

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- 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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Log of Boring DP-08

Figure
F-8

DP-09

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC	
							Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____
0							
1	1	d3		0.0		SP/SM	
							Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, damp) [Fill]
2						SP/SM	
							Gray, fine SAND with gravel and silt (no odor, no sheen) (medium dense, moist to wet)
4							
6	2	d3		0.0			▽ ATD
8						ML	
							Gray, SILT with clay (no odor, no sheen) (medium stiff, wet) [Native]
10	3	d3		0.0			
12							
14	4	d3		0.0		SP/SM	
							Gray, fine SAND with silt (no odor, no sheen) (medium dense, wet)
16							

Boring Completed 07/29/10
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.

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Log of Boring DP-09

Figure
F-9

DP-11

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
0									
2	1	d3		0.0		SP/SM	Brown, fine SAND with silt (no odor, no sheen) (medium dense, damp to moist) [Fill]		▽ ATD
4									
6	2	d3		0.0		ML			
8									
10	3	d3		0.0			Gray, SILT with clay (no odor, no sheen) (medium stiff, wet) [Native]		▽ ATD
12									
14	4	d3		0.0		SP/SM			
16							Gray, fine SAND with silt (no odor, no sheen) (medium dense, wet)		▽ ATD
18									
20							Gray, SILT with sand (no odor, no sheen) (medium stiff, wet)		▽ ATD
22									

Boring Completed 07/30/10
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.

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Log of Boring DP-11

Figure
F-10

DP-13

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
0									
2	1	d3		0.0		SP/SM	Brown, fine SAND with silt (no odor, no sheen) (medium dense, moist) [Fill]		ATD
4						SP			
6	2	d3		0.0		SP	Brown, medium to coarse SAND (no odor, no sheen) (medium dense, wet)		
8									

Boring Completed 07/30/10
Total Depth of Boring = 8.0 ft.

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- 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.



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Log of Boring DP-13

Figure
F-11

DP-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): _____	Water Level
0						SP			
2	1	d3		0.0		SP			
4						SP/SM			
6	2	d3		0.0		ML		▽ ATD	
8						ML			
10	3	d3		0.0		ML			
12						ML			
14	4	d3		0.0		SP/SM			
16						SP/SM			

Boring Completed 07/30/10
Total Depth of Boring = 16.0 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.

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Log of Boring DP-15

Figure
F-12

DP-16

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): _____	Water Level
	1	d3		0.0	SP/SM	SP/SM	Brown, medium to coarse SAND with silt (no odor, no sheen) (medium dense, damp) [Fill]	
					SP/SM	SP/SM	Gray, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, damp)	
					SP/SM	SP/SM	Gray, fine SAND with silt (slight odor, no sheen) (medium dense, damp)	
					SP/SM	SP/SM	Gray, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, damp to moist)	
						ML	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, moist to wet)	
	2	d3		0.0	ML	ML	Gray, SILT with clay (no odor, no sheen) (medium stiff, moist to wet) [Native]	▽ ATD
						SP/SM	Gray, fine to medium SAND with silt (no odor, no sheen) (medium dense, wet)	
	3	d3		0.0	SP/SM	SP/SM	Gray, fine to medium SAND with silt (no odor, no sheen) (medium dense, wet)	
						ML	Gray, SILT with clay and sand (no odor, no sheen) (medium stiff, wet)	
	4	d3		0.0	SP/SM	SP/SM	Gray, fine SAND with silt (no odor, no sheen) (medium dense, wet)	

Boring Completed 07/30/10
Total Depth of Boring = 16.0 ft.

- Notes:
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 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring DP-16

Figure
F-13

DP-17

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
0						AC	Asphalt		
2	1	d3		0.0		SP/SM	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (medium dense, damp to moist) [Fill]		
4									
6						ML	Gray SILT with sand (no odor, no sheen) (medium stiff, wet) [Native]	▽ ATD	
8	2	d3		0.0					
10						SP	Gray, fine to medium SAND with trace silt (no odor, no sheen) (medium dense, wet)		

Boring Completed 01/27/11
Total Depth of Boring = 10.0 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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Log of Boring DP-17

Figure
F-14

DP-18

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
0									
2	1	d3		0.0	[Stippled Pattern]	SP/SM	Brown, fine to medium SAND with silt, gravel, and trace organics (no odor, no sheen) (medium dense, moist) [Fill]		ATD
4				[Dotted Pattern]	SM				
6				[Horizontal Lines]	ML	Gray SILT (no odor, no sheen) (medium stiff, wet) [Native]			
8	2	d3		0.0	[Vertical Lines]	SP/SM	Gray, fine SAND with silt (no odor, no sheen) (medium dense, wet)		
10									

Boring Completed 01/27/11
Total Depth of Boring = 10.0 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.

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Log of Boring DP-18

Figure
F-15

DP-19

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC SP/SM	Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____
1		d3		0.0		SP/SM	∇ ATD
2						SP/SM	
3						SP/SM	
4						SP/SM	
5						SP/SM	
6						SP/SM	
7						SP/SM	
8		d3		0.0		ML	
9						ML	
10						SP/SM	

Boring Completed 01/27/11
 Total Depth of Boring = 10.0 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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Log of Boring DP-19

Figure
F-16

DP-20

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							
2	1	d3		0.0		SM	
4							
6							▽ ATD
8	2	d3		0.0		ML	
10						SP/SM	

Drilling Method: Geoprobe™
 Ground Elevation (ft): _____

Brown, silty, fine to medium SAND with gravel (no odor, no sheen) (medium dense to dense, moist) [Fill]

Gray, SILT (no odor, no sheen) (medium stiff to stiff, wet) [Native]

Gray, fine SAND with silt (no odor, no sheen) (medium dense, wet)

Boring Completed 01/27/11
 Total Depth of Boring = 10.0 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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Log of Boring DP-20

Figure
F-17

DP-21

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								
1	1	d3		0.0	SM SP/SM		Dark Brown, organic rich, silty, fine to medium SAND (organic-like odor, no sheen) (medium dense, moist) [Fill]	
2							Brown, fine to medium SAND with silt, and concrete fragments and gravel (no odor, no sheen) (dense, moist to wet)	
4					SP		Gray, fine to medium SAND with trace silt (no odor, no sheen) (medium dense, wet)	▽ ATD
6	2	d3		0.0	SM		Gray, silty, fine SAND (no odor, no sheen) (medium dense, wet)	
8								

Boring Completed 01/26/11
Total Depth of Boring = 8.0 ft.

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- 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.



DP-22

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	
1	d3		0.0		SP/SM		Brown, fine to coarse SAND with silt and gravel (no odor, no sheen) (dense, moist) [Fill]	
2					SP/SM		Gray, fine to medium SAND with silt and trace gravel (no odor, no sheen) (medium dense, wet)	▽ ATD
3					ML		Gray, SILT with sand (no odor, no sheen) (medium stiff, wet) [Native]	
4								
5								
6								
7								
8	2	d3	0.0					
9								
10								

Boring Completed 01/26/11
Total Depth of Boring = 10.0 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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Log of Boring DP-22

Figure
F-19

DP-23

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
	1	d3		0.0	AC SP/ SM	SP/ SM	▽ ATD
					AC	Asphalt	
					SP/ SM	Brown, fine to coarse SAND with silt and gravel (no odor, no sheen) (medium dense, damp) [Fill]	
					SP/ SM	Gray, fine to medium SAND with silt and trace gravel (no odor, no sheen) (medium dense, moist)	
					-	No recovery, rock in sampler	
					SM	Gray, silty, fine to medium SAND (no odor, no sheen) (medium dense, wet) [Native]	
	2	d3		0.0	SM		

Boring Completed 01/26/11
Total Depth of Boring = 10.0 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.

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Log of Boring DP-23

Figure
F-20

DP-24

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
0						AC	Asphalt		
1		d3		0.0		SP/SM	Brown, fine to coarse SAND with silt and gravel (no odor, no sheen) (medium dense, wet) [Fill]		▽ ATD
2						SM	Brown, silty, fine to medium SAND with trace gravel (no odor, no sheen) (dense, wet)		
4						SP/SM	Gray, fine to medium SAND with silt (hydrocarbon-like odor, slight sheen) (medium dense, wet)		
6									
7	2	d3		3.8		ML	Gray, SILT (no odor, no sheen) (stiff, wet) [Native]		
8									
10						SM	Gray, silty, fine to medium SAND (no odor, no sheen) (medium dense, wet)		

Boring Completed 01/26/11
Total Depth of Boring = 10.0 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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Log of Boring DP-24

Figure
F-21

DP-24a

SAMPLE DATA		SOIL PROFILE				GROUNDWATER			
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™	Ground Elevation (ft):	Water Level
0					AC GP		Asphalt		▽ ATD
0 - 1	1	d3		8.5	SM		Gravel Base Coarse		
1 - 4				0.3			Light brown, silty, fine to coarse SAND with gravel (no odor, no sheen) (medium dense, damp)		
4 - 6									
6 - 8	2	d3		38.7	GM		Brown, silty, sandy, medium to coarse GRAVEL (no odor, no sheen) (medium dense, damp)		
8 - 10					ML		Grey clayey SILT (petroleum-like odor, no sheen) (medium stiff, moist) [Native]		
10 - 12				40.9			Strongest petroleum-like odor at 9-10 ft		▽ ATD
12 - 15	3	d3			SP-SM		Grey, fine SAND with silt (no odor, no sheen) (medium dense, wet)		

Boring Completed 05/20/11
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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Kent, Washington

Log of Boring DP-24a

Figure
F-22

DP-24b

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
0					[Symbol]	AC	Asphalt		
1		d3		0.4	[Symbol]	SM	Brown, silty, gravelly, fine to coarse SAND (no odor, no sheen) (dense, damp) [Fill]		
2					[Symbol]				
4					[Symbol]				
6					[Symbol]				
8		d3			[Symbol]	ML	Grey, clayey SILT (no odor, no sheen) (medium stiff, moist) [Native]		
10				14.8	[Symbol]	SP	Grey, fine SAND with trace silt (slight petroleum-like odor, no sheen) (medium dense, wet)	▽ ATD	
12		d3			[Symbol]		no odor at 11-12 ft		
14					[Symbol]				
16					[Symbol]				
18					[Symbol]				
20					[Symbol]				

Boring Completed 05/20/11
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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Log of Boring DP-24b

Figure
F-23

DP-24c

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
0					AC GP		Asphalt		
1	1	d3		1.3	SM		Gravel Base Coarse		
2							Grey to brown, gravelly, silty, fine to coarse SAND (no odor, no sheen) (dense, damp)		
4									
6									
8	2	d3		2.1	SM		Grey, silty, fine SAND (no odor, no sheen) (medium dense, moist)		
10								▽ ATD	

Boring Completed 05/20/11
Total Depth of Boring = 10.0 ft.

25195.001 9/22/11 N:\PROJECTS\025195.001.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.

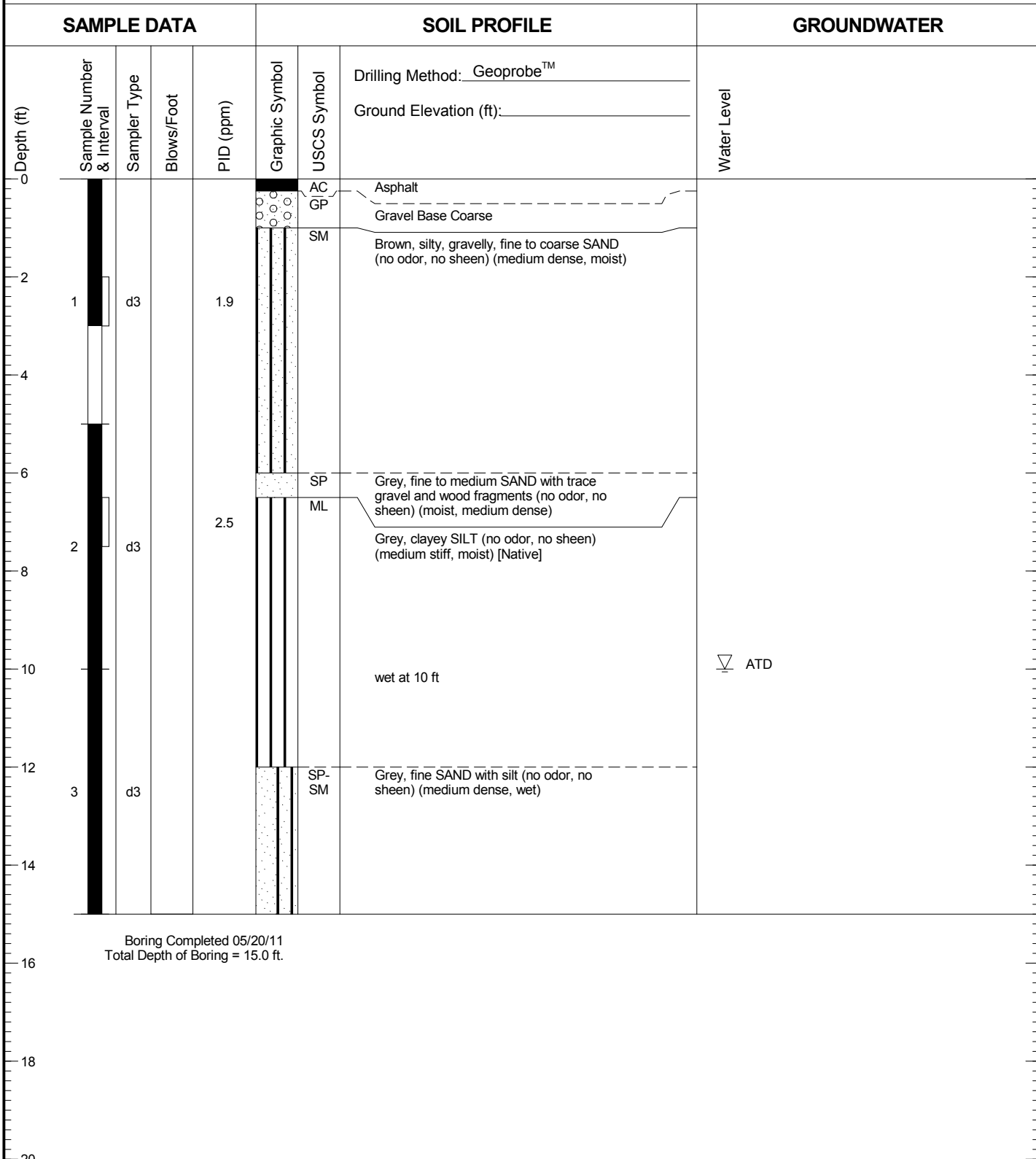


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Kent, Washington

Log of Boring DP-24c

Figure
F-24

DP-24d



Boring Completed 05/20/11
 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Log of Boring DP-24d

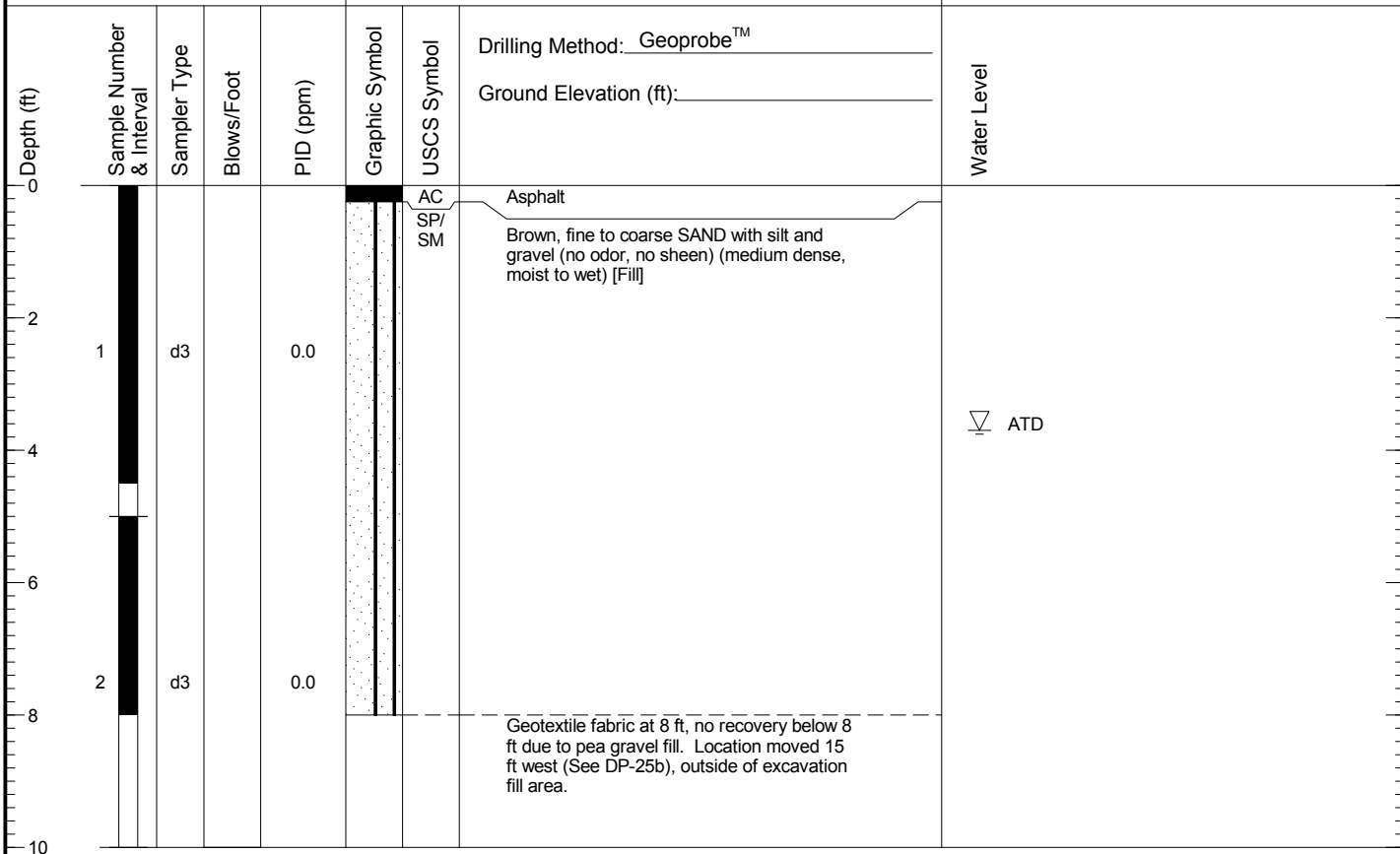
Figure
F-25

DP-25

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 01/26/11
Total Depth of Boring = 10.0 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Log of Boring DP-25

Figure
F-26

DP-25b

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
0						AC	Asphalt		
1		d3		0.0		SP/SM	Brown, fine to coarse SAND with silt and gravel (no odor, no sheen) (medium dense, moist to wet) [Fill]		
2						SM	Gray, silty, fine to medium SAND (hydrocarbon-like odor, no sheen) (medium dense, wet)		▽ ATD
3						SM	Gray, silty, fine to medium SAND (hydrocarbon-like odor, no sheen) (medium dense, wet)		
4						SM	Gray, silty, fine to medium SAND (hydrocarbon-like odor, no sheen) (medium dense, wet)		
5						SM	Gray, silty, fine to medium SAND (hydrocarbon-like odor, no sheen) (medium dense, wet)		
6						SM	Gray, silty, fine to medium SAND (hydrocarbon-like odor, no sheen) (medium dense, wet)		
7						SM	Gray, silty, fine to medium SAND (hydrocarbon-like odor, no sheen) (medium dense, wet)		
8	2	d3		6.1		ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
9						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
10						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
11						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
12						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
13						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
14						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
15						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
16						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
17						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
18						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
19						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
20						ML	Gray, SILT (no odor, no sheen) (medium stiff, wet) [Native]		

Boring Completed 01/26/11
Total Depth of Boring = 10.0 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



Project Striker
Kent, Washington

Log of Boring DP-25b

Figure
F-27

DP-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>	Ground Elevation (ft): _____	Water Level
0									
1	1	d3		0.0	[Dotted Pattern]	SP/SM	Brown, fine to medium SAND with silt, gravel, and organics (no odor, no sheen) (loose, moist to wet) [Fill]		ATD
2									
4									
6							Gray, fine to medium SAND with silt and trace gravel (no odor, no sheen) (medium dense, wet) [Native]		
7	2	d3		0.0	[Dotted Pattern]	SP/SM			
8									
10					[Horizontal Lines]	ML	Gray, SILT with sand (no odor, no sheen) (medium stiff, wet) [Native]		
10									
10									

Boring Completed 01/25/11
Total Depth of Boring = 10.0 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Kent, Washington

Log of Boring DP-26

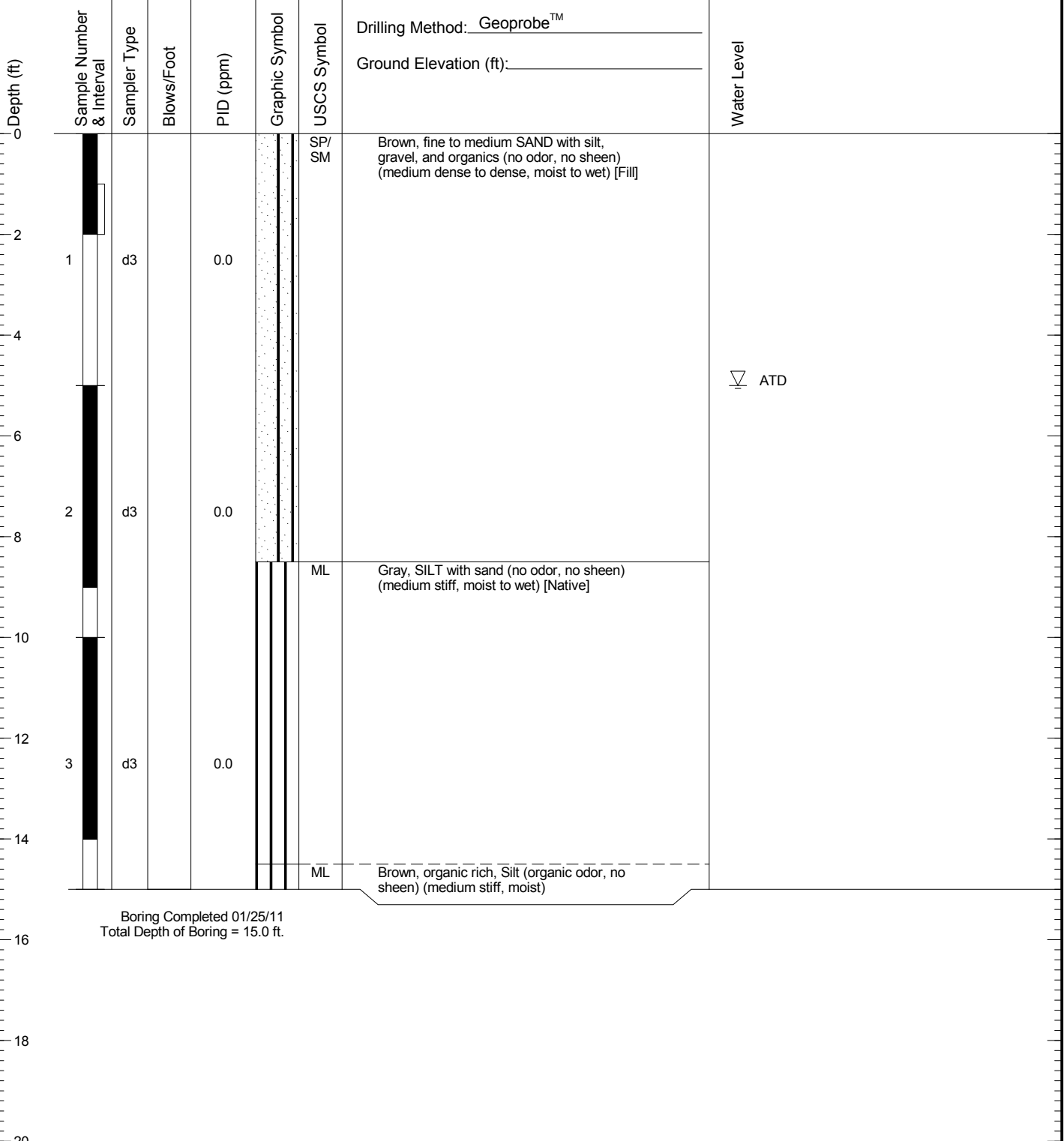
Figure
F-28

DP-27

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 01/25/11
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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Log of Boring DP-27

Figure
F-29

DP-28

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
	1	d3		0.0	[Pattern]	SM	
						Drilling Method: <u>Geoprobe™</u> Ground Elevation (ft): _____	
	2	d3		0.0	[Pattern]	SP	▽ ATD
						Brown, silty, fine to medium SAND with gravel and trace organics (no odor, no sheen) (medium dense, moist) [Fill]	
						Gray, fine to medium SAND with trace gravel and trace silt (no odor, no sheen) (medium dense, wet)	

Boring Completed 01/25/11
 Total Depth of Boring = 10.0 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



Project Striker
 Kent, Washington

Log of Boring DP-28

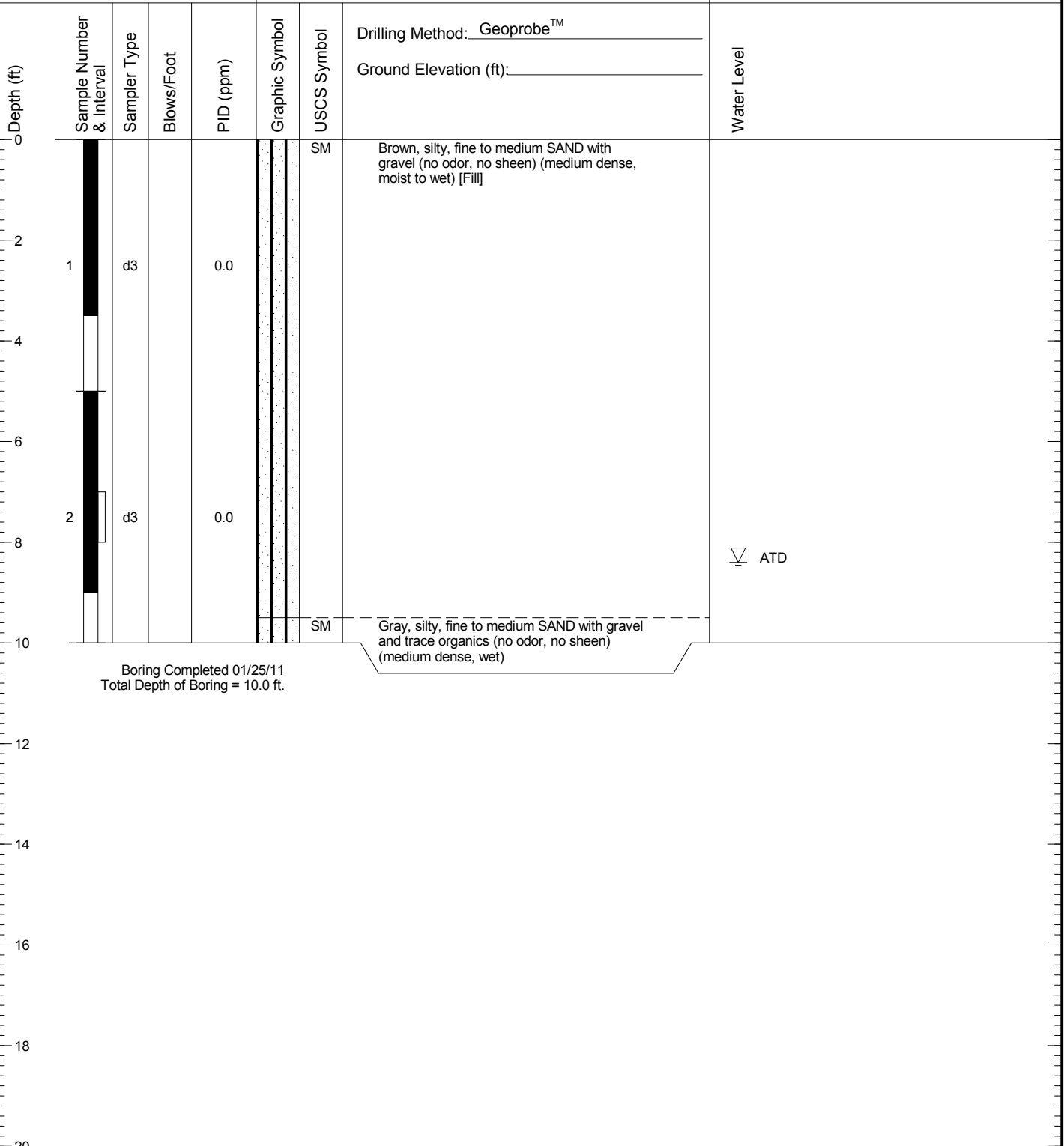
Figure
F-30

DP-29

SAMPLE DATA

SOIL PROFILE

GROUNDWATER



Boring Completed 01/25/11
Total Depth of Boring = 10.0 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Log of Boring DP-29

Figure
F-31

DP-30

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
0									
1	1	d3		0.0	[Dotted Pattern]	SP/SM	Brown, fine to medium SAND with silt, gravel, and organics (no odor, no sheen) (medium dense, moist to wet) [Fill]		
2									
3									
4							▽ ATD		
5							Gray, fine to medium SAND with silt and trace gravel (no odor, no sheen) (medium dense, wet)		
6	2	d3		0.0	[Dotted Pattern]	SP/SM			
7									
8							Gray, sandy, SILT (no odor, no sheen) (medium stiff, wet) [Native]		
9									
10						ML			

Boring Completed 01/25/11
Total Depth of Boring = 10.0 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



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Log of Boring DP-30

Figure
F-32

DP-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>	Ground Elevation (ft): _____	Water Level
0					[Fill]	SP/SM	Brown, fine to medium SAND with silt and gravel (no odor, no sheen) (dense, moist)		Water Level
2	1	d3		0.0	[Native]	SM			
4							ATD		
6	2	d3		0.0					ATD
8							ATD		

Boring Completed 01/26/11
Total Depth of Boring = 8.0 ft.

25195.001 9/22/11 N:\PROJECTS\025195.001.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.



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Log of Boring DP-31

Figure
F-33

DP-32

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							
2	1	d3		0.0	[Dotted Pattern]	SP/SM	
4					[Dotted Pattern]	SP/SM	▽ ATD
6	2	d3		0.0	[Dotted Pattern]		
8							

Boring Completed 01/26/11
Total Depth of Boring = 8.0 ft.

Mottling at 7.5 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.

25195.001 9/22/11 N:\PROJECTS\025195.001.GPJ SOIL BORING LOG



Project Striker
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Log of Boring DP-32

Figure
F-34

DP-33

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
0						ML			
2	1	d3		0.0			Brown, SILT with organics (no odor, no sheen) (medium stiff, damp to moist) [Native]		▽ ATD
4						SP/SM			
6	2	d3		0.0					
8									

Boring Completed 01/26/11
Total Depth of Boring = 8.0 ft.

25195.001 9/22/11 N:\PROJECTS\025195.001.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.



Project Striker
Kent, Washington

Log of Boring DP-33

Figure
F-35

Post-Remedial Action Soil and Groundwater Analytical Results

TABLE G-1
POST-REMEDIAL ACTION INVESTIGATION SOIL ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Screening Levels Protective of Direct Human Contact	KSC-DP-24a-S (6-7) SX92A/SX92C 05/20/2011	KSC-DP-24a-S (9-10) SX92B/SX92D 05/20/2011
VOLATILES ORGANIC COMPOUNDS (µg/kg)			
Method SW8260C			
Chloromethane		1.1 U	2.1 U
Bromomethane		1.1 U	2.1 U
Vinyl Chloride		1.1 U	2.1 U
Chloroethane		1.1 U	2.1 U
Methylene Chloride	130,000	18	32
Acetone	1,000,000	39	75
Carbon Disulfide	1,000,000	1.1	2.1 U
1,1-Dichloroethene		1.1 U	2.1 U
1,1-Dichloroethane		1.1 U	2.1 U
trans-1,2-Dichloroethene		1.1 U	2.1 U
cis-1,2-Dichloroethene		1.1 U	2.1 U
Chloroform		1.1 U	2.1 U
1,2-Dichloroethane		1.1 U	2.1 U
2-Butanone		5.3 U	10
1,1,1-Trichloroethane		1.1 U	2.1 U
Carbon Tetrachloride		1.1 U	2.1 U
Vinyl Acetate		5.3 U	10 U
Bromodichloromethane		1.1 U	2.1 U
1,2-Dichloropropane		1.1 U	2.1 U
cis-1,3-Dichloropropene		1.1 U	2.1 U
Trichloroethene		1.1 U	2.1 U
Dibromochloromethane		1.1 U	2.1 U
1,1,2-Trichloroethane		1.1 U	2.1 U
Benzene	18,200	1.9	7.4
trans-1,3-Dichloropropene		1.1 U	2.1 U
2-Chloroethylvinylether		5.3 U	10 U
Bromoform		1.1 U	2.1 U
4-Methyl-2-Pentanone (MIBK)		5.3 U	10 U
2-Hexanone		5.3 U	10 U
Tetrachloroethene		1.1 U	2.1 U
1,1,2,2-Tetrachloroethane		1.1 U	2.1 U
Toluene	1,000,000	1.3	2.1 U
Chlorobenzene		1.1 U	2.1 U
Ethylbenzene	1,000,000	67	390
Styrene		1.1 U	2.1 U
Trichlorofluoromethane		1.1 U	2.1 U
1,1,2-Trichloro-1,2,2-trifluoroethane		2.1 U	4.1 U
m, p-Xylene	1,000,000	99	970
o-Xylene	1,000,000	9.6	2.1 U
1,2-Dichlorobenzene		1.1 U	2.1 U
1,3-Dichlorobenzene		1.1 U	2.1 U
1,4-Dichlorobenzene		1.1 U	2.1 U
Acrolein		53 U	100 U
Methyl Iodide		1.1 U	2.1 U
Bromoethane		2.1 U	4.1 U
Acrylonitrile		5.3 U	10 U
1,1-Dichloropropene		1.1 U	2.1 U
Dibromomethane		1.1 U	2.1 U
1,1,1,2-Tetrachloroethane		1.1 U	2.1 U
1,2-Dibromo-3-chloropropane		5.3 U	10 U
1,2,3-Trichloropropane		2.1 U	4.1 U
trans-1,4-Dichloro-2-butene		5.3 U	10 U
1,3,5-Trimethylbenzene	800,000	48	1,900
1,2,4-Trimethylbenzene	NA	460	8,600
Hexachlorobutadiene		5.3 U	10 U
Ethylene Dibromide		1.1 U	2.1 U
Bromochloromethane		1.1 U	2.1 U
2,2-Dichloropropane		1.1 U	2.1 U

TABLE G-1
POST-REMEDIAL ACTION INVESTIGATION SOIL ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON

	Screening Levels Protective of Direct Human Contact	KSC-DP-24a-S (6-7) SX92A/SX92C 05/20/2011	KSC-DP-24a-S (9-10) SX92B/SX92D 05/20/2011
1,3-Dichloropropane		1.1 U	2.1 U
Isopropylbenzene	NA	26	250
n-Propylbenzene	NA	57	1,600
Bromobenzene		1.1 U	2.1 U
2-Chlorotoluene		1.1 U	2.1 U
4-Chlorotoluene		1.1 U	2.1 U
tert-Butylbenzene		1.1 U	2.1 U
sec-Butylbenzene	NA	15	260
4-Isopropyltoluene	NA	14	230
n-Butylbenzene	NA	42 M	3,400
1,2,4-Trichlorobenzene		5.3 U	10 U
Naphthalene	1,000,000	740	9,200
1,2,3-Trichlorobenzene		5.3 U	10 U
Methyl tert-Butyl Ether		1.1 U	2.1 U
TOTAL METALS (mg/kg)			
Method EPA200.8			
Lead	250	6.5	5.6
PAHs (µg/kg)			
Method SW8270DSIM			
Naphthalene	1,000,000	280	260
2-Methylnaphthalene	320,000	180	860
1-Methylnaphthalene	NA	110	490
Acenaphthylene		5.0 U	54 U
Acenaphthene	1,000,000	10	160 U
Fluorene	1,000,000	8.5	96
Phenanthrene	NA	15	280
Anthracene		5.0 U	5.0 U
Fluoranthene	1,000,000	6.8	5.0 U
Pyrene	1,000,000	5.7	15
Benzo(a)anthracene		5.0 U	5.0 U
Chrysene	see total cPAHs	5.2	5.0 U
Benzo(a)pyrene		5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene		5.0 U	5.0 U
Dibenz(a,h)anthracene		5.0 U	5.0 U
Benzo(g,h,i)perylene		5.0 U	5.0 U
Dibenzofuran	NA	9.4	60 U
Total Benzofluoranthenes		5.0 U	5.0 U
Total cPAH - benzo(a)pyrene TEQ (a)	140	0.052	ND

NA = No criteria available.

ND = Not Detected.

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

M = Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses.

Bold = Detected compound.

(a) A toxicity equivalency quotient was calculated for each sample containing carcinogenic PAHs above the reporting limits in accordance with WAC-173-340-708(8).

**TABLE G-2
POST-REMEDIAL ACTION GROUNDWATER ANALYTICAL RESULTS
DIESEL GENERATOR AND ABOVEGROUND STORAGE TANK AREA
BOEING SPACE CENTER - KENT, WASHINGTON**

	Screening Levels (a)	KSC-DP-22 SG42E 01/26/2011	KSC-DP-23 SG42F 01/26/2011	KSC-DP-24 SG42G 01/26/2011	KSC-DP-25b SG42H 01/26/2011
DISSOLVED METALS (µg/L) Method EPA 200.8					
Arsenic	5	66.0	66.7	2.7	71.6

Bold = Detected compound.

Box = Concentration exceeds the screening level.

(a) MTCA Method B screening level.