Data Gap Investigation Report
Former Weyerhaeuser Mill Site
Oregon Department of Environmental Quality
ECSI #1083
Coos County, Oregon

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Data Gap Investigation Report

Former Weyerhaeuser Mill Site
Oregon Department of Environmental Quality
ECSI #1083
Coos County, Oregon

Prepared by

GRI

Oregon & Washington

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DATA GAP INVESTIGATION EXECUTIVE SUMMARY

The former mill site was originally developed for a neutral-sulfite, semi-chemical process mill by the Menasha Wooden Ware Corporation in 1961. The mill consisted of main mill/paper machine building, shipping warehouse, maintenance/operations buildings, office space, repair shops, and storage. Weyerhaeuser purchased the mill in 1981 and operated at the site until approximately 2003. Multiple environmental investigations have been completed at the site to identify and characterize soil and groundwater conditions following the industrial use of the property (PES, 2006), which identified residual contamination that remains at the former Weyerhaeuser site. The Oregon Department of Environmental Quality (DEQ) approved leaving this contamination in place because it is not present at concentrations that pose an unacceptable risk to human health, safety, welfare, and the environment, and No Further Action (NFA) was appropriate. DEQ's approval to leave contamination on the site recommended the extent of residual concentrations from a hydraulic oil release in the vicinity of the south “lowerator” be determined by supplementary investigation.

A data gap evaluation, conducted by GRI in 2015, identified additional data needs after review of existing information and recommended additional investigation to evaluate data needs and obtain the data necessary to assess potential human health and ecological risk to potential site receptors (GRI, 2015).

GRI prepared a Data Gap Investigation Work Plan and Site-Specific Safety Plan (SSSP), which describes the objectives, methods, and overall approach to obtaining the soil and groundwater data. DEQ approved the work plan in a letter dated January 22, 2018. In addition to delineating the extent of the residual concentrations near the south “lowerator,” the work plan identified other locations for soil and groundwater chemical data collection to evaluate additional data gaps identified at the site previously (GRI, 2015) and provide current chemical data for the low-level residual industrial chemicals in soil and groundwater compared to current DEQ Risk-Based Concentrations (RBCs) as a preliminary screening approach to identify potential human health risks (DEQ, 2018). Based on anticipated continued industrial use of the site, the applicable RBC exposure pathways includes soil ingestion, inhalation, and dermal contact under the occupational, construction, and excavation worker exposure scenarios and groundwater in excavation for construction and excavation workers.

The range of polynuclear aromatic hydrocarbons (PAHs), metals, and/or petroleum hydrocarbons concentrations detected during this investigation are generally within the range of concentrations detected by the previous environmental investigation completed at the site by others (PES, 2006) that were used as the basis for the NFA determination issued by DEQ in 2006. However, where comparative analysis exists, the concentrations of PAHs, metals, and/or petroleum hydrocarbons detected during this investigation are typically detected at concentrations less than those detected in 2006. The 2006 investigation compared analytical results to a combination of regulatory levels that included DEQ RBCs published in 2003 and EPA Region 9 Preliminary Remediation Goals, dated October 2004. This report compares analytical results to the current RBCs published by DEQ in 2018.

Current chemical concentrations from soil and groundwater testing compared to generic RBCs indicate subsurface soils in the Fuel-Oil Release Area (FO), Chip Truck Hydraulic Lift Area (CT), Stream Channel Area (SC), North and South “Lowerators” Area (NL/SL), Former Mobile/Paint/Fuel Shops Area (SH), Mobile Shop Area (MO), South Jordan Point Debris Area (JP), Boiler and Powerhouse Area (BP), Debarker Area (DB), and fire suppression building areas of the site contain PAHs, metals, and/or petroleum hydrocarbons at concentrations greater than the applicable RBCs considered. The SC, SH, MO, and JP areas of the site contain arsenic and/or chromium concentrations that exceed applicable RBCs but are below the natural background concentrations for the Coast Range (DEQ, 2018). In our opinion, the elevated metal concentrations likely represent natural background concentrations and are not indicative of anthropogenic sources. Concentrations detected in groundwater samples are below the applicable RBCs considered.

Based on comparison of the analytical results from the Data Gap Investigation to current generic RBCs developed by DEQ (2018) the following areas evaluated in this investigation have concentrations of PAHs, metals, and/or petroleum hydrocarbons that exceed RBCs for soil and we recommend mitigation in these areas if land use activities at the site change:

- **Fuel Oil Release Area** (**FO**) **–** Naphthalene (46.8 mg/kg) exceeds the occupational RBC (23 mg/kg)
- **Chip Truck Hydraulic Lift Area** (**CT**) **–** Oil (6,190 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
- **"Lowerators" Area** (**NL/SL**) **–** Oil (61,500 mg/kg) exceeds occupational and construction worker RBCs of 4,600 and 14,000 mg/kg, respectively
- **Boiler and Powerhouse Area (BP):**

  Benzo(a)pyrene (2.27 mg/kg) exceeds occupational RBCs (2.1 mg/kg)

  Naphthalene (92 mg/kg) exceeds the occupational RBCs (23 mg/kg)

  Diesel (27,660 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)

  Oil (14,000 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
- **Debarker Area** (**DB**) **–** Oil (6,130 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
- **Fire-Suppression Diesel AST Area –** Chromium (743 mg/kg) exceeds the construction worker RBC (49 mg/kg) and the default natural background concentration (240 mg/kg) for the Coast Range (DEQ, 2018)

Consistent with the recommendation of the NFA determination, the recent data collected for this investigation should be used to evaluate if subsequent remedial mitigation efforts are necessary to reduce the concentration of contaminants in soil. If land use activities at the site change, we recommend that remedial mitigation efforts be considered to:

- Mitigate future potential risk to human health, safety, welfare, and the environment by lowering the residual concentrations or eliminating exposure; and
- Satisfy the requirements and recommendations of the NFA determination.

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INTRODUCTION

This Data Gap Investigation Report was prepared on behalf of Fort Chicago Holdings II, LLC, (Fort Chicago Holdings) for the former Weyerhaeuser (Weyerhaeuser) containerboard mill (site) located on the North Spit of Coos Bay, Oregon. The general location of the site is shown on Figure 1, the Vicinity Map. Multiple environmental investigations have been completed at the site to identify and characterize soil and groundwater conditions following the industrial use of the property (PES, 2006). These investigations identified residual contamination that remains at the former Weyerhaeuser site. The Oregon Department of Environmental Quality (DEQ) approved leaving this contamination in place because it is not present at concentrations that pose an unacceptable risk to human health, safety, welfare and the environment and No Further Action (NFA) was appropriate. DEQ's approval to leave contamination on the site recommended that the extent of residual concentrations from a hydraulic oil release in the vicinity of the south “lowerator” be determined by supplementary investigation. We understand Weyerhaeuser abandoned the monitoring wells associated with the hazardous-substance investigation and removal actions also recommended in the NFA determination issued by the DEQ in 2006.

Fort Chicago Holdings elected to conduct the supplementary investigation recommended by DEQ in the 2006 NFA and requested GRI prepare a Data Gap Investigation Work Plan and Site Specific Safety Plan (SSSP). The Data Gap Investigation Work Plan describes the objectives, methods, and overall approach to obtaining the soil and groundwater data and was provided to the site owner and DEQ for review and comment. DEQ approved the work plan in a letter dated January 22, 2018. In addition to delineating the extent of the residual concentrations near the south “lowerator”, the work plan identified other locations for soil and groundwater chemical data collection to evaluate additional data gaps identified at the site previously (GRI, 2015) and provide current chemical data for the low level residual industrial chemicals in soil and groundwater. Our work included 1) review of DEQ files associated with Environmental Cleanup Site Information (ECSI) #1083, 2) collection of three shallow soil samples and completion of 104 exploratory borings to collect soil and groundwater samples, 3) chemical evaluation of the samples aimed to address data gaps, and 4) generation of this report.

The sample locations and chemical evaluation described in this report were designed to help identify the lateral and vertical extents of the low levels of residual contamination allowed to remain at the Main Mill Complex of the site as described in the NFA determination by DEQ and generate up-to-date chemical data. The concentrations of detected contaminants are compared to current DEQ Risk-Based Concentrations (RBCs) as a preliminary screening approach to identify potential human health risks (DEQ 2018). Considering the current industrial zoning for the site, reasonably anticipated future land use includes commercial or industrial operations. Based on anticipated continued use for industrial activities at the site, the applicable RBC exposure pathway includes soil ingestion, inhalation, and dermal contact under the occupational, construction, and excavation worker exposure scenarios. For groundwater, the applicable RBC exposure pathway includes groundwater in excavation for construction and excavation workers, since a public supply for water is readily available and groundwater is not likely to be used for potable water supply. No RBC values have been established specifically for hydraulic oil; however, detected oil concentrations in soil and groundwater have been compared to applicable RBCs for diesel. In addition, the concentrations of total metals detected are compared to DEQ natural background concentrations for metals (DEQ, 2018).

BACKGROUND

The former mill site was originally developed for a neutral-sulfite, semi-chemical process mill by the Menasha Wooden Ware Corporation in 1961. The mill consisted of main mill / paper machine building, shipping warehouse, maintenance / operations buildings, office space, repair shops, and storage. Weyerhaeuser purchased the mill in 1981 and operated at the site until approximately 2003.

The site is listed in the DEQ ECSI regulatory database (ECSI #1083). In April 1996, DEQ identified several areas of concern at the site. In 2006, PES Environmental, Inc. (PES), identified 13 areas of concern at the site where soil and groundwater contamination was suspected based on review of data from past environmental assessment work, observations of site conditions at the time, Weyerhaeuser knowledge of past practices, a 1996 DEQ Strategy Recommendation Memorandum, and findings of a Phase I Environmental Site Assessment completed by Delta Environmental Consultants (Delta) in 2004 (PES, 2006).

A data gap evaluation, conducted by GRI in 2015, identified additional data needs after review of existing information. Additional details on the evaluation and identification of data gaps can be found in the September 28, 2015, report by GRI titled "Data Gap Evaluation and Work Plan, South Dunes Site Oregon Department of Environmental Quality ECSI #1083, Coos County, Oregon." Additional investigation was recommended to evaluate data needs and obtain the data necessary to assess potential human health and ecological risk to potential site receptors.

METHODS

This section describes the methods used for the completion of field activities. The methods were developed to supplement previously available investigation data and identify current soil and groundwater environmental conditions. Data gap investigation activities included the collection of soil and groundwater samples and chemical analysis described in greater detail below.

Field Exploration Activities

Subsurface explorations were completed at the site between January 29 and February 14, 2018. Field activities complied with applicable Occupational Safety and Health Administration (OSHA) regulations for geo-environmental drilling. The GRI field supervisor served as the Site Health and Safety Officer and led the daily tailgate safety meetings. A general summary of field activities is provided below.

- **Site Access –** GRI personnel and subcontractors accessed the locations of the subsurface explorations within the project site from the locked gate at the north end of the site. Access to the locations was coordinated with the property owner. No significant site clearing was conducted during field activities at the exploration locations. Minor areas of soil were disturbed for borings located at Jordan Point from the turning action of the drill rig.

- **Exploration Layout and Utility Locates –** The subsurface exploration locations were located and marked with white marking paint or survey stakes with white flagging by GRI personnel on January 16 and 17, 2018. Each exploration location was evaluated for potential conflicting utilities by both One-Call Utility Notification Service and a private utility locating service.

- **Subsurface Explorations –** The subsurface exploration program included 104 direct-push borings drilled from a track-mounted drill rig. Boring locations are presented on Figures 2 through 10. Each boring was advanced to depths ranging from 4 to 45 ft, with the majority of borings advanced to a depth of 15 ft. Borings were advanced in areas of known or suspected contamination to further evaluate and constrain identified data gaps. Due to the exploratory nature of the investigation, the location of borings presented on Figures 2 through 10 are different than those proposed in the Data Gap Investigation Work Plan (GRI, 2018).

Subsurface explorations were backfilled with bentonite and abandoned in accordance with Oregon Water Resources Department regulations. The drilling and sampling was accomplished under the direction of an experienced certified engineering geologist from GRI, who located the general areas of the subsurface explorations and maintained a log of the materials and conditions encountered during the course of the work. Boring logs are included in Appendix A. The explorations were completed by Stratus Corporation, Inc., of Gaston, Oregon. Borings were located using a recreational-grade GPS unit with a horizontal accuracy of about 15 ft.

- **Soil Sampling -** Soil samples were obtained from the borings by advancing a continuous sampler in 5-ft intervals and then removing the sample core from the borehole before advancing the next 5-ft interval. The core was contained in a clear acetate sleeve inside the sample barrel. The soil core sleeves were extracted from the core barrel and opened in the field to allow visual classification of soils and qualitative observation of indications of contamination (sheen, odor, discoloration). Field screening results are used as a general guideline to assess areas of possible contamination. The field screening methods used included visual screening and organic vapor screening using a calibrated Photo Ionization Detector (PID).

  The effectiveness of field screening varies with temperature, moisture content, organic content, soil type and type and age of contaminant. The presence or absence of a sheen, odor, discoloration, or volatile organic compound (VOC) vapors does not necessarily indicate the presence or absence of significant contamination. Visual screening consists of observing soil and groundwater for indications of contamination. Sheen observations involved placing a small amount of soil in water and observing the water surface for signs of sheen.

  No Sheen: No visible sheen on the water surface.

  Slight Sheen: Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.

  Moderate Sheen: Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on the water surface.

> ***Heavy Sheen:*** Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening evaluates the presence of VOC in the field. Headspace vapor screening involves placing a soil sample in a sealed container and measuring the vapors with PID to record the presence of organic vapors.

Soil samples for chemical analysis were selected based on results of the field screening and data needs to address potential data gaps. Sample designations in this report are codified by investigation area, followed by boring number, and the sample depth. For example, the sample designated FO-111-8 was collected from the fuel-oil release area (FO), from boring number 111, at a depth of 8 ft. Clean nitrile gloves and stainless-steel sampling tools were used for sample collection. The sampling tools were cleaned with a solution of Alconox detergent and water and then rinsed with distilled water between samples. Clean, laboratory-supplied glass sample containers were filled as full as possible and sealed with air-tight, Teflon-lined caps. Samples were stored in a cooler with ice for transport to the analytical laboratory.

- **Groundwater Sampling –** Groundwater samples were collected from a temporary well point and brought to the ground surface by a peristaltic pump. Groundwater samples were designated with the area prefix (e.g. Fuel-oil release area samples are designated "FO"), the boring number (e.g. 111), and the letter "W." For example, groundwater sample FO-111-W was collected from boring FO-111 in the fuel-oil release area.

- **Chemical Analysis –** Sample containers were labelled, recorded on a chain-of-custody form, placed in a cooler with ice, and later transported to ESC Lab Sciences in Mount Juliet, Tennessee, for chemical analysis. Chemical analysis included Northwest Method Total Petroleum Hydrocarbons (NWTPH) diesel (Dx) and gasoline (Gx) range organics, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270SIM, volatile organic compounds (VOCs) by EPA Method 8260, polychlorinated biphenyls PCBs) by EPA Method 8082, and Priority Pollutant Metals (metals) by EPA Method 3010B, 6020, 7470A, and 7471A. The analyses were completed within a standard turnaround time.

- **Cuttings and Drilling Fluids –** Cuttings, decontamination fluids, and other investigation derived wastes (IDW) were produced while completing the borings. Cuttings and fluids obtained from the explorations and from equipment decontamination were contained in 55-gal. steel drums and temporarily stored on site. At the completion of the subsurface explorations, the drums were removed from the site and the IDW disposed (in accordance with appropriate regulations) at Hillsboro Landfill in May of 2018.

RESULTS

A total of 13 areas are addressed in this report: 1) fuel-oil release area (FO), 2) mineral spirits release area (MS), 3) truck scales (TS) and carpenter shop (CS), 4) chip truck hydraulic lift area (CT), 5) hog fuel hydraulic lift area (HF), 6) stream channel area (SC), 7) north (NL) and south (SL) "lowerators," 8) former paint/mobile/fuel shops (SH), 9) mobile shop (MO), 10) South Jordan Point debris area (JP), 11) Boiler and Powerhouse (BP), 12) debarker area (DB), and 13) during the field activities, an above-ground storage tank (AST) cradle was identified adjacent to the fire suppression support building. The field team agreed with the property owner to collect a shallow soil sample just east of the fire support building below the footprint of the former AST.

During the course of the work, daily site-visit reports were provided to the property owner describing the work accomplished that day and presented an estimate of the field activities work planned for the following day. The site-visit reports served to inform the project team the daily findings and results of the investigation field work for discussion and planning.

1: FUEL-OIL RELEASE AREA (FO)

Background. A fuel line ruptured near the main mill entrance in 1989 and released an estimated 3,000 gal. of fuel oil. An initial cleanup action by Weyerhaeuser removed 110 cu yd of soil and 27,760 gal. of oily groundwater. In 1991 Weyerhaeuser removed an additional 950 cu yd of soil. Soil and groundwater was evaluated by four soil borings and two groundwater monitoring wells around the perimeter of the soil excavation in March 1992. Soil and groundwater from the borings did not contain detectable concentrations of TPH or benzene, toluene, ethylbenzene, and xylenes (BTEX). Analysis for TPH (diesel and oil) and PAHs was conducted on soil samples from six test pits, and soil and groundwater from one direct-push boring indicated that detectable concentrations of TPH were not encountered in soil or groundwater. Two PAH compounds were detected in groundwater at concentrations below applicable RBCs.

Data Gap Evaluation. However, the six test pits and one direct-push boring were completed outside of the former above-ground fuel oil storage tank area. Additionally, fuel oil is also referred to as cutter stock oil and reprocessed fuel oil, which is a combination of Bunker C residual and recycled used oil. Recycled used oil can contain VOCs and metals, which were not analyzed for during the investigation by PES (PES, 2006).

Data Gap Investigation Results

Ten borings were completed in the Fuel-Oil Release Area. Exploration data and field observations are summarized in the table below. Boring locations are shown on Figure 3.

FUEL-OIL RELEASE AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID, ppm	DTW, ft	TD, ft	Sheen	Odor	Date Completed	Longitude	Latitude
FO-	110	GW		2.8	15.0	No	No	1/30/2018	-124.23941	43.43640
FO-	111	GS	32.5	3.5	20.0	Slight	Slight	1/30/2018	-124.23937	43.43628

Area Prefix	Exploration ID #	Sample collected	PID, ppm	DTW, ft	TD, ft	Sheen	Odor	Date Completed	Longitude	Latitude
FO-	112	SS		2.4	15.0	No	No	1/30/2018	-124.23953	43.43613
FO-	113	SS		3.5	15.0	No	No	1/30/2018	-124.23925	43.43634
FO-	114	SS		3.4	15.0	Slight	No	1/30/2018	-124.23926	43.43627
FO-	115	NS	8.1	3.1	20.0	Slight	Slight	1/30/2018	-124.23937	43.43625
FO-	116	SS	1.9	3.6	15.0	No	Moderate	1/31/2018	-124.23943	43.43630
FO-	117	SS	0.7	3.1	15.0	No	No	1/31/2018	-124.23920	43.43617
FO-	118	GS	0.0	2.4	15.0	No	No	1/31/2018	-124.23883	43.43611
FO-	203	SS	1.3	-	10.0	No	No	2/14/2018	-124.23934	43.43616

GW = Groundwater sample collected only
GS = Both groundwater and soil samples collected
SS = Soil sample collected only
NS = No samples were collected from this boring.
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

A slight sheen was observed in three borings at a depth of:

- 8 to 10 ft in boring FO-111
- 9.25 to 12.5 ft in boring FO-114
- 8.5 to 17.5 ft in FO-115

A light to moderate odor was observed in three borings at a depth of:

- 8 to 10 ft in boring FO-111
- isolated at 8.5 ft in boring FO-115
- isolated at 10 ft in boring FO-116

Soil Analytical Results

Based on field screening, six soil samples (FO-111-8, FO-113-8, FO-114-13, FO-116-14, FO-118-4, and FO-203-9) were analyzed from the fuel-oil release area. Laboratory results are summarized in Table 1 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the fuel-oil release area contains metals, VOCs, PAHs, diesel, oil, and gasoline.

Metals. Chemical analytical results indicate antimony, cadmium, selenium, silver, and thallium were not detected in soil sample FO-118-4. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in FO-118-4 at a concentration of

3.12 milligrams per kilogram (mg/kg), which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in FO-118-4 at concentrations of 7.5 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, these concentrations are total chromium concentrations. Additionally, the detected chromium concentration in sample FO-118-4 is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

VOCs. A total of 12 VOC compounds were detected in soil samples. With the exception of naphthalene, chemical analytical results indicate VOCs were detected below applicable RBCs. Naphthalene was detected in soil sample FO-111-8 at a concentration of 46.8 mg/kg, which exceeds the occupational RBC of 23 mg/kg.

PAHs. PAHs were not detected in soil samples FO-116-14, FO-118-4, and FO-203-9. Chemical analytical results indicate a total of 17 PAH compounds were detected in soil samples from FO-111-8, FO-113-8, and FO-114-13 at concentrations below applicable RBCs.

Petroleum. Analytical results indicate diesel (up to 375 mg/kg), oil (477 mg/kg), and gasoline (1.66 mg/kg) were detected in soil samples at concentrations below applicable RBCs.

Groundwater Analytical Results

Three groundwater samples (FO-110-W, FO-111-W, and FO-118-W) were analyzed from the fuel-oil release area. Laboratory results are summarized in Table 2 at the end of this report and in the analytical laboratory report included as Appendix B. VOCs were not detected in groundwater samples collected from the fuel-oil release area. Chemical testing indicates that groundwater in the fuel-oil release area contains metals, PAHs, and diesel.

Metals. Chemical analytical results indicate antimony, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate that other metals detected in groundwater are below applicable RBCs.

PAHs. Chemical analytical results indicate a total of five PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

Petroleum. Analytical results indicate oil and gasoline were not detected in the groundwater sample collected from the fuel-oil release area. Diesel was detected in the groundwater sample at a concentration of 0.0416 milligrams per liter (mg/L).

Fuel-Oil Release Area Investigation Findings

The analytical results indicate detected concentrations of arsenic in soil sample FO-118-4 and naphthalene in soil sample FO-111-8 exceed the applicable RBC. Arsenic was detected in sample FO-118-4 at a concentration of 3.12 mg/kg, which exceeds the applicable RBC but is below the natural background concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample FO-118-4 at a concentration of 7.5 mg/kg, which exceeds the applicable RBC, but is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

Observations of petroleum sheen and odor were clustered in borings FO-111, FO-114, FO-115, and FO-116. Naphthalene was detected in soil sample FO-111-8 at a concentration of 46.8 mg/kg from the VOC analysis and 0.372 mg/kg from the PAH analysis. The concentration of naphthalene exceeds the occupational RBCs of 23 mg/kg. The absence of elevated concentrations of naphthalene in other soil samples, including from boring FO-114 and FO-116, suggests soil exceeding the occupational RBC for naphthalene is limited to a small area surrounding boring FO-111. A slight petroleum sheen and light odor were observed in boring FO-111 from 8-10 ft. Based on the observations and chemical data collected for this assessment, the volume of soil exceeding the applicable RBC for naphthalene is estimated to be approximately 200 cubic yards.

The analytical results indicate detected concentrations of analytes in groundwater do not exceed applicable RBCs in the Fuel-Oil Release area.

2: MINERAL SPIRITS RELEASE AREA (MS)

Background. Mineral spirits used to clean pitch from paper machine components were released from former above-ground storage tank (AST) and underground storage tanks (USTs) on the north side of the paper machine building. An air sparge / soil vapor extraction (AS/SVE) system was installed and operated from 1992 to 1994 to remediate contaminated groundwater. The AS/SVE system was decommissioned in 1994 following groundwater monitoring results indicating concentrations declined to below regulatory levels. PES collected groundwater samples in 2005 from three groundwater wells and three direct-push borings and analyzed for TPH (diesel and oil), PAHs, and VOCs. Soil samples were collected from three direct-push borings and analyzed for TPH (diesel, oil, and gasoline), PAHs, and VOCs. Diesel, mineral spirits, gasoline, and oil-range TPH and six VOC compounds were detected in one soil sample. Diesel, gasoline, PAHs, and VOCs were detected in groundwater in the mineral spirits release area. However, the concentrations of detected contaminants in soil and groundwater samples were less than applicable RBCs.

Data Gap Evaluation. Additional data needs were not identified in the Mineral Spirits Release area. However, the DEQ indicated in the No Further Action letter, that residual contamination remaining in the Mineral Spirits Release area includes low levels of petroleum hydrocarbon contamination below the concrete slab. Soil and groundwater below the concrete slab were evaluated to obtain recent chemical data and extent of residual mineral spirits.

Data Gap Investigation Results

Eight borings were completed in the Mineral Spirits Release Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 4.

MINERAL SPIRITS RELEASE AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
MS-	131	GS	300.0	4.8	25	No	Heavy	2/2/2018	-124.23936	43.43481
MS-	132	SS	2.6	4.6	15	No	No	2/2/2018	-124.23946	43.43480
MS-	133	SS	0.3	8.3	15	No	No	2/2/2018	-124.23917	43.43477
MS-	134	GW	0.3	4.7	15	No	No	2/3/2018	-124.23936	43.43461
MS-	135	NS	0.0	4.5	15	No	No	2/5/2018	-124.23958	43.43494
MS-	136	GS	0.0	4.5	15	No	No	2/5/2018	-124.23925	43.43491
MS-	184	NS	1.4	-	4	No	No	2/12/2018	-124.23917	43.43428
MS-	185	SS	3.8	0.5	15	No	No	2/12/2018	-124.23917	43.43421

GW = Groundwater sample collected only
GS = Both groundwater and soil samples collected
SS = Soil sample collected only
NS = No samples were collected from this boring
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

Soil Analytical Results

Five soil samples (MS-131-9, MS-131-21, MS-132-9, MS-133-9, and MS-185-4) were analyzed from the Mineral Spirits Release area. Laboratory results are summarized in Table 3 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Mineral Spirits Release area contains VOCs, PAHs, diesel, and oil.

VOCs. A total of ten VOC compounds were detected in soil samples. Chemical analytical results indicate VOCs were detected below applicable RBCs.

PAHs. PAHs were not detected in soil samples MS-132-9 and MS-133-9. Chemical analytical results indicate a total of 16 PAH compounds were detected in the remaining soil samples at concentrations below applicable RBCs.

Petroleum. Analytical results indicate diesel was not detected in soil samples MS-131-21 and MS-185-4, and oil was not detected in soil sample MS-131-21. Analytical results indicate diesel was detected in sample MS-131-9 at a concentration below applicable RBCs. Oil was detected in soil samples MS-131-9 and MS-185-4 at concentrations of 69.6 and 4.59 mg/kg respectively; which are below the applicable RBCs.

Groundwater Analytical Results

Three groundwater samples (MS-131-W, MS-134-W, and MS-136-W) were collected from the Mineral Spirits Release area. Laboratory results are summarized in Table 4 at the end of this report and in the analytical laboratory report included in Appendix B. Chemical testing indicates that groundwater in the Mineral Spirits Release area contains metals, VOCs, PAHs, diesel, oil, and gasoline.

Metals. Chemical analytical results indicate beryllium, cadmium, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate other metals detected in groundwater at concentrations are below applicable RBCs.

VOCs. Chemical analytical results indicate a total of 12 VOC compounds were detected in groundwater samples at concentrations below applicable RBCs.

PAHs. Chemical analytical results indicate a total of ten PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

Petroleum. Diesel was detected in groundwater at a concentration of 15 mg/L. Oil was detected in groundwater at a concentration of 2.21 mg/L. Gasoline was detected in groundwater at a concentration of 0.38 mg/L. Chemical analytical results indicate petroleum compounds detected in groundwater samples at concentrations below applicable RBCs.

Mineral Spirits Release Area Investigation Findings

The analytical results indicate detected concentrations of analytes in soil and groundwater samples do not exceed applicable RBCs within the Mineral Spirits Release area.

3: TRUCK SCALES AND CARPENTER SHOP (TS/CS)

Background. One gasoline UST and one diesel UST were removed from north of the truck scales and one mineral spirits UST was removed from north of the carpenter shop. Soil sample analysis in 1992 detected gasoline, diesel, ethylbenzene, and xylenes in groundwater from a monitoring well, and total petroleum hydrocarbons in soil from two borings (SEACOR, 1992). In 2005, PES collected groundwater samples from two monitoring wells, soil samples from nine test pits, and soil and groundwater samples from one direct-push boring. Diesel was detected in soil in three test pits and oil was detected in soil in two test pits. Diesel, gasoline, PAHs, and VOCs were detected in groundwater.

Data Gap Evaluation. The previous investigation appears to have concentrated on an area to the east of the truck scales. Review of environmental investigations conducted prior to the 2005 investigation indicates residual impacts from the gasoline and diesel USTs are present north of the truck scales. In addition, soil and groundwater sampling were not completed north of the carpenter shop in the area of former USTs. The lack of sample data in the vicinity of the decommissioned mineral spirits UST represents a data gap.

Data Gap Investigation Results

Eight borings were completed in the Truck Scales and Carpenter Shop area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 5.

TRUCK SCALES AND CARPENTER SHOP EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
TS-	192	SS	4.2	1.5	15	No	Slight	2/13/2018	-124.24138	43.43581
TS-	193	SS	1.5	1.5	15	No	Slight	2/13/2018	-124.24134	43.43582
TS-	194	SS	1.6	2.0	15	No	No	2/13/2018	-124.24126	43.43578
TS-	195	GS	1.8	0.5	15	No	Slight	2/13/2018	-124.24134	43.43576
CS-	196	SS	3.4	3.2	15	No	No	2/13/2018	-124.24170	43.43584
CS-	197	SS	0.5	-	15	No	No	2/13/2018	-124.24172	43.43593
CS-	198	GS	1.5	2.1	15	No	No	2/13/2018	-124.24187	43.43585
TS-	204	GW	1.4	3.0	10	No	No	2/14/2018	-124.24091	43.43631

GW = Groundwater sample collected only
GS = Both groundwater and soil samples collected
SS = Soil sample collected only
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

Soil Analytical Results

Three soil samples (TS-192-8, TS-193-15, and TS-195-11) were analyzed from the truck scales area and one soil sample (CS-198-9) was analyzed from the carpenter shop area. Laboratory results are summarized in Table 5 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Truck Scales area contains PAHs and diesel.

> **PAHs.** PAHs were not detected in soil samples TS-193-15 and CS-198-9. Chemical analytical results indicate a total of eight PAH compounds were detected in soil samples TS-192-8 and TS-195-11 at concentrations below applicable RBCs.
>
> **Petroleum.** Analytical results indicate diesel was detected in sample TS-192-8 at a concentration of 13.2 mg/kg, which is below the applicable RBCs.

Groundwater Analytical Results

Three groundwater samples (TS-195-W, TS-204-W, and CS-198-W) were analyzed from the Truck Scale and Carpenter Shop areas. Laboratory results are summarized in Table 6 at the end of this report and in the analytical laboratory report included as Appendix B. VOCs were not detected in the groundwater sample collected from TS-195-W, with the exception of a low concentration of toluene. Chemical testing indicates that groundwater in the Truck Scales area contains metals, PAHs, and diesel.

> **Metals.** Chemical analytical results indicate metals detected in groundwater are below applicable RBCs.
>
> **PAHs.** Chemical analytical results indicate a total of four PAH compounds were detected in groundwater samples at concentrations below applicable RBCs. In addition, two PAH compounds were also detected in the laboratory blank and likely represent a laboratory contaminant not actually present in the sample.
>
> **Petroleum.** Analytical results indicate gasoline was not detected in the groundwater samples collected from the Truck Scales area. Diesel and oil were detected in the groundwater samples at concentrations below applicable RBCs.

Truck Scales Carpenter Shop Investigation Findings

The analytical results indicate detected concentrations of analytes in soil and groundwater samples do not exceed applicable RBCs within the Truck Scales and Carpenter Shop area.

4: CHIP TRUCK HYDRAULIC LIFT AREA (CT)

Background. Approximately 150 gal. of hydraulic oil was released in this area in the early 1990s. Soil sample analysis in 1992 detected TPH on the south side of the chip truck hydraulic lift. Additional soil sampling in 1995 detected oil on the north side of the lift. PES collected soil samples from five test pits and soil and groundwater from five direct-push borings in 2005. Analysis of four soil samples detected diesel and oil. Based on the results of TPH analysis, soil samples were also analyzed for PAHs and two compounds were detected. Analysis of two groundwater samples indicated detection of diesel and oil and one groundwater sample detected PAHs. A remedial excavation was completed in the area in 2005 that removed approximately 699.5 tons of soil and 3,315 gal. of contaminated groundwater.

Data Gap Evaluation. Diesel, oil, and PAHs were detected in soil and groundwater in the chip truck hydraulic lift area. Following excavation and removal of contaminated soil and groundwater, confirmation samples indicate the concentrations are less than applicable RBCs. Based on the sampling and analysis completed in 2005, it did not appear that there are remaining data gaps in this area. However, some contamination was left in place following remedial activities and the spatial distribution of sample locations suggest that horizontal limits were less than refined.

Data Gap Investigation Results

Thirteen borings were completed in the Chip Truck Hydraulic Lift Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 6.

CHIP TRUCK HYDRAULIC LIFT AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
CT-	142	GS	1.0	4.3	20	Moderate	Moderate	2/5/2018	-124.24111	43.43525
CT-	143	SS	0.6	3.6	15	No	No	2/5/2018	-124.24073	43.43520
CT-	144	GS	0.0	3.5	20	No	No	2/5/2018	-124.24108	43.43514
CT-	145	SS	0.0	3.8	20	Moderate	Heavy	2/6/2018	-124.24121	43.43528
CT-	146	SS	0.0	4.2	20	Slight	No	2/6/2018	-124.24121	43.43519
CT-	147	NS	0.0	6.2	20	Moderate	Moderate	2/6/2018	-124.24103	43.43532
CT-	148	SS	0.0	4.6	15	No	No	2/6/2018	-124.24099	43.43542
CT-	149	SS	0.0	4.5	30	Slight	No	2/6/2018	-124.24123	43.43537
CT-	150	SS		3.4	20	Slight	No	2/6/2018	-124.24132	43.43533
CT-	151	GS		2.5	15	Slight	No	2/6/2018	-124.24155	43.43518
CT-	152	SS		3.9	15	Slight	No	2/6/2018	-124.24083	43.43525
CT-	153	GW		2.4	15	No	No	2/7/2018	-124.24134	43.43507
CT-	154	GW		4.5	15	No	No	2/7/2018	-124.24155	43.43485

GW = Groundwater sample collected only
GS = Both groundwater and soil samples collected
SS = Soil sample collected only
NS = No samples were collected from this boring
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft

Soil Analytical Results

Seven soil samples (CT-142-11, CT-145-7, CT-145-16, CT-146-13, CT-149-13, CT-149-29, and CT-150-13) were analyzed from the Chip Truck Hydraulic Lift area. Laboratory results are summarized in Table 7 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Chip Truck Hydraulic Lift area contains PAHs, diesel, and oil.

PAHs. PAHs were not detected in soil samples CT-145-16, CT-146-13, CT-149-29, and CT-150-13. Chemical analytical results indicate a total of 12 PAH compounds were detected in soil samples at concentrations below applicable RBCs.

Petroleum. Analytical results indicate diesel and oil detected were in soil in the Chip Truck area. Oil was detected in sample CT-145-7 at concentration of 6,190 mg/kg, which exceeds the applicable RBC of 4,600 mg/kg.

Groundwater Analytical Results

Four groundwater samples (CT-142-W, CT-144-W, CT-151-W, and CT-153-W) were analyzed from the Chip Truck Hydraulic Lift area. Laboratory results are summarized in Table 8 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in Chip Truck Hydraulic Lift area contains PAHs, oil, and diesel.

PAHs. Chemical analytical results indicate a total of 10 PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

Petroleum. Analytical results indicate diesel and oil were detected in the groundwater sample at concentrations below applicable RBCs.

Chip Truck Investigation Findings

The analytical results indicate the detected concentration of oil in soil exceeds applicable RBCs within the Chip Truck Hydraulic Lift area.

The analytical results indicate detected concentrations of analytes in groundwater samples do not exceed applicable RBCs within the Chip Truck Hydraulic Lift area.

5: HOG FUEL HYDRAULIC LIFT AREA (HF)

Background. Soil and groundwater samples were collected from seven direct-push borings in 1995. Analysis of the samples indicated that oil was detected between the truck scales and the chip truck lift area. Analysis of soil samples from three test pits detected diesel and oil in one test pit sample at concentrations below applicable RBCs. Analysis for PAHs in the sample with diesel and oil did not detect PAHs.

Data Gap Evaluation. The test pits completed to evaluate the hog fuel area were not located within the footprint of the hydraulic lift. Drips and leaks from hydraulic equipment and oil reservoir storage, if they occurred, would be located directly below the lift equipment. Additionally, the groundwater sample used to represent groundwater conditions in the hog fuel hydraulic lift area was located approximately 60 ft south of the equipment location. This distance may not be adequate to represent groundwater characterization of the hog fuel lift.

Data Gap Investigation Results

Five borings were completed in the Hog Fuel Hydraulic Lift Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 6.

HOG FUEL AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
HF-	137	GS	0.9	3.6	20	Very Slight	No	2/5/2018	-124.24101	43.43557
HF-	138	NS	1.6	3.3	15	No	No	2/5/2018	-124.24114	43.43561
HF-	139	NS	0.2	3.2	7	No	No	2/5/2018	-124.24094	43.43557
HF-	140	SS	0.0	3.5	15	No	No	2/5/2018	-124.24090	43.43560
HF-	141	SS	0.8	3.8	15	No	No	2/5/2018	-124.24101	43.43561

GS = Both groundwater and soil samples collected
SS = Soil sample collected only
NS = No samples were collected from this boring
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft

Soil Analytical Results

One soil sample (HF-137-16) was analyzed from the Hog Fuel Hydraulic Lift Area. Laboratory results are summarized in Table 9 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the fuel-oil release area contains a PAH compound, phenanthrene.

PAHs. Chemical analytical results indicate phenanthrene was detected at a concentration of 0.000756 mg/kg. There is no established RBC for this compound.

Petroleum. Analytical results indicate diesel and oil were not detected.

Groundwater Analytical Results

One groundwater sample (HF-137-W) was analyzed from the Hog Fuel Hydraulic Lift area. Laboratory results are summarized in Table 10 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical analytical testing indicates that PAHs were not detected in the groundwater sample collected from the Hog Fuel Hydraulic Lift area. Chemical testing indicates that groundwater in the Hog Fuel Hydraulic Lift area contains diesel and oil.

Petroleum. Analytical results indicate diesel and oil were detected in the groundwater sample at concentrations of 0.0964 and 0.163 mg/l respectively, which are below applicable RBCs.

Hog Fuel Area Investigation Findings

The analytical results indicate phenanthrene was detected in soil sample HF-137-16 at a concentration of 0.000756 mg/kg. However, no RBCs have been established for this compound. The analytical results indicate soil concentrations do not exceed applicable RBCs within the Hog Fuel Hydraulic Lift area.

The analytical results indicate detected concentrations of diesel and oil do not exceed applicable RBCs within the Hog Fuel Hydraulic Lift area.

6: STREAM CHANNEL AREA (SC)

Background. A stream formerly drained south-southeast from the maintenance shop to Coos Bay. The northern segment has been culverted and the southern segment remains open. Sediment samples collected in 2005 from four hand-augered borings completed in the southern portion and one direct-push boring in the northern portion of the channel encountered diesel and oil, three PAHs, and two PCBs.

Data Gap Evaluation. The likely source of contaminants in the stream channel is stormwater runoff from the mill site. Sediment samples were collected in the stream channel area to evaluate the concentration of these contaminants.

Data Gap Investigation Results

Two shallow explorations were completed in the Stream Channel Area. Stream Channel area samples were not field-screened using the PID. Groundwater samples were not collected from the Stream Channel explorations. Exploration data and observations are summarized in the table below. Exploration locations are shown on Figure 7.

STREAMCHANNEL AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
SC-	205	SS	-	1	No	No	2/14/2018	-124.23855	43.43208
SC-	206	SS	-	1	No	No	2/14/2018	-124.23999	43.43206

SS = Soil sample collected only
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

Soil Analytical Results

Two soil samples (SC-205-1 and SC-206-1) were analyzed from the Stream Channel area. Laboratory results are summarized in Table 11 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Stream Channel area contains metals, PAHs, oil, and gasoline. Chemical analytical results indicate PCBs were not detected in Stream Channel area soil samples.

Metals. Chemical analytical results indicate selenium, silver, and thallium were not detected in soil samples. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in SC-205-1 and SC-206-1 at concentrations of 3.12 and 4.84 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in SC-205-1 and SC-206-1 at concentrations of 80.3 and 7.11 mg/kg respectively, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. The chromium concentration detected in soil sample SC-205-1 also exceeds the construction worker RBC for chromium (VI) of 49 mg/kg. However, these concentrations are total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

PAHs. Chemical analytical results indicate a total of 18 PAH compounds were detected in soil samples at concentrations below applicable RBCs.

Petroleum. Analytical results indicate oil and gasoline were detected in soil samples at concentrations below applicable RBCs.

Stream Channel Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil samples SC-205-1 and SC-206-1 exceed the occupational RBC, and chromium in soil sample SC-205-1 also exceeds the construction worker RBC. Elevated arsenic concentrations and chromium concentration in SC-206-1 likely represent natural background concentrations and are not indicative of anthropogenic sources. Based on receiving site stormwater runoff and the shallow depth of sample collection, the elevated chromium concentration in SC-205-1 of 80.3 mg/kg when compared to other chromium results potentially represents an anthropogenic source. However, the concentration of chromium in SC-205-1 is less than the natural background concentration of 240 mg/kg.

7: NORTH AND SOUTH "LOWERATORS" AREA (NL/SL)

Background. Two hydraulic elevators, or "lowerators," were located at the east end of the main mill building to lower paper from the upper floor of the main mill building to the lower floor. The hydraulic equipment was set within concrete walls in a below-grade sump about 10 to 16 ft below the floor of the building. Soil and groundwater samples were collected from two direct-push borings completed near the north and south lowerators and analyzed for diesel, oil, and PAHs. Oil was detected in soil near the south lowerator. Diesel and oil were detected in groundwater less than the applicable RBC.

Data Gap Evaluation. PAHs were not detected in soil or groundwater; however, analytical testing results indicate elevated detection limits for PAHs are greater than the applicable RBCs.

Data Gap Investigation Results

Seven borings were completed in the North and South "Lowerators" Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 4.

NORTH AND SOUTH "LOWERATORS" AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID, ppm	DTW, ft	TD, ft	Sheen	Odor	Date Completed	Longitude	Latitude
SL-	178	NS	0.0	-	7	No	No	2/12/2018	-124.23872	43.43465
SL-	179	NS	0.0	-	7	No	No	2/12/2018	-124.23869	43.43463
SL-	180	GS	20.0	5.8	15	No	Moderate	2/12/2018	-124.23874	43.43464
SL-	181	SS	0.4	-	15	No	No	2/12/2018	-124.23873	43.43458
NL-	182	SS	0.3	0.7	5	Heavy	Moderate	2/12/2018	-124.23870	43.43477
NL-	183	SS	0.3	-	15	No	No	2/12/2018	-124.23865	43.43476
SL-	186	GW	1.3	3.8	10	No	No	2/12/2018	-124.23838	43.43435

GW = Groundwater sample collected only
GS = Both groundwater and soil samples collected
SS = Soil sample collected only
NS = No samples were collected from this boring
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

Soil Analytical Results

Four soil samples (SL-180-10, SL-180-15, NL-182-5, and NL-183-15) were analyzed from North and South “Lowerators” area. Laboratory results are summarized in Table 12 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in North and South “Lowerators” area contains metals, VOCs, PAHs, diesel, and oil.

Metals. Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in soil sample NL-182-5. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in NL-182-5 at a concentration of 3.97 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in NL-182-5 at a concentration of 8.76 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

VOCs. A total of eight VOC compounds were detected in soil. Chemical analytical results indicate VOCs were detected below applicable RBCs.

PAHs. PAHs were not detected in soil sample NL-183-15. Chemical analytical results indicate a total of thirteen PAH compounds were detected in soil samplesat concentrations below applicable RBCs.

Petroleum. Analytical results indicate diesel was detected in soil samples at concentrations below applicable RBCs. Oil was detected in soil sample SL-180-10 at a concentration of 61,500 mg/kg, which exceeds the applicable RBC of 4,600 mg/kg.

Groundwater Analytical Results

Two groundwater samples (SL-180-W and SL-186-W) were analyzed from the North and South “Lowerators” area. Laboratory results are summarized in Table 13 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the North and South “Lowerators” area contains metals, PAHs, diesel, and oil.

Metals. Chemical analytical results indicate beryllium, cadmium, selenium, silver, and thallium were not detected in groundwater samples. Chemical analytical results indicate other metals were detected in groundwater below applicable RBCs.

PAHs. Chemical analytical results indicate naphthalene and 1-methylnaphthalene were detected in groundwater samples at concentrations below applicable RBCs.

Petroleum. Gasoline was not detected in groundwater. Analytical results indicate diesel and oil was detected in both groundwater samples at concentrations below applicable RBCs.

North and South Lowerators Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil sample NL-182-5 exceed the occupational RBCs. Arsenic was detected in sample NL-182-5 at a concentration of 3.97 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in NL-182-5 at a concentration of 8.76 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg, but is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

Chemical analytical results indicate a total of 13 PAH compounds were detected in soil samples at concentrations below applicable RBCs. Oil was detected in soil sample SL-180-10 at a concentration that exceeds applicable RBCs. A moderate petroleum odor was observed from 6 to 10 ft in boring SL-180. Using field observations, samples were selected for analysis to determine the lateral and vertical extent of compounds within soil that potentially exceed applicable RBCs. In the South “Lowerator” area, field observations did not suggest potential RBC exceedances below a depth of 10 ft. Additionally, field observations did not indicate affected soil in boring SL-181; therefore, soil samples were not selected for analysis from boring SL-181. Due to refusal at 7 ft in borings SL-178 and SL-179, potential contamination at depth could not be evaluated northeast of boring SL-180. Based on field observations, it appeared that the vaults containing the in-ground hydraulic lift for the lowerators were filled with concrete during the mill decommissioning activities. In addition, it appeared that the detected analytes that exceed RBCs are contained in the concrete vault and affected soils are likely limited to the interior of the north lowerator vault and the area to the northwest of the south lowerator.

The analytical results indicate detected concentrations of analytes in groundwater do not exceed applicable RBCs for the North and South “Lowerators” area.

8: FORMER MOBILE/PAINT/FUEL SHOPS AREA (SH)

Background. The oil, mobile, and paint shops were located adjacent to each other near the west end of the main mill building. These shops were demolished in 1990 and the oil shop service pit was filled with gravel and capped with concrete. Soil samples from four direct-push borings were collected in 2005 and analyzed for diesel and oil. No diesel or oil was detected in soil samples.

Data Gap Evaluation. Previous samples were not analyzed for VOCs or metals, which may have been used or stored at this location as used oils and spent solvents. In addition, three of the samples analyzed were shallow (less than 3 ft).

Data Gap Investigation Results

Two borings were completed in the Former Mobile/Paint/Fuel Shops area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 8.

FORMER MOBILE/PAINT/FUEL SHOPS AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
SH-	176	GS	0.6	4.3	15	No	No	2/9/2018	-124.24063	43.43433
SH-	177	SS	0.0	1.7	15	Slight	Slight	2/12/2018	-124.24055	43.43459

GS = Both groundwater and soil samples collected
SS = Soil sample collected only
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft

Soil Analytical Results

One soil sample (SH-177-5) was analyzed from the Former Mobile/Paint/Fuel Shops area. Laboratory results are summarized in Table 14 at the end of this report and in the analytical laboratory report included as Appendix B. Analytical results indicate VOCs were not detected in soil sample SH-177-5. Chemical testing indicates that soil in Former Mobile/Paint/Fuel Shops area contains metals, PAHs, diesel, oil, and gasoline.

> **Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in soil sample SH-177-5. With the exception of arsenic, chemical analytical results indicate other metals were detected below applicable RBCs. Arsenic was detected in SH-177-5 at a concentration of 4.33 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).
>
> **PAHs.** Naphthalene was detected at a concentration of 0.00307 mg/kg, which is below applicable RBCs. 2-methylnapthalene was detected at a concentration of 0.00382 mg/kg; however, no RBCs have been established for this compound.
>
> **Petroleum.** Analytical results indicate diesel, oil, and gasoline were detected in soil samples at concentrations below applicable RBCs.

Groundwater Analytical Results

One groundwater samples (SH-176-W) was analyzed from the Former Mobile/Paint/Fuel Shops area. Laboratory results are summarized in Table 15 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Former Mobile/Paint/Fuel Shops area contains metals, VOCs, PAHs, diesel, and oil.

> **Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, thallium, and mercury were not detected in groundwater samples. Chemical analytical results indicate other metals detected in groundwater are below applicable RBCs.
>
> **VOCs.** Chemical analytical results indicate toluene was detected at a concentration of 0.00103 mg/L, which is below the RBC of 220 mg/L.
>
> **PAHs.** Chemical analytical results indicate a total of three PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.
>
> **Petroleum.** Analytical results indicate gasoline was not detected in the groundwater sample collected from the Former Mobile/Paint/Fuel Shops area. Diesel was detected in the groundwater sample at a concentration of 0.159 mg/L, which is below the applicable RBC. Oil was detected at a concentration of 0.083 mg/L, which is below the applicable RBC.

Former Shops Area Investigation Findings

The analytical results indicate arsenic was detected in SH-177-5 at a concentration of 4.33 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

The analytical results indicate detected concentrations of VOC, PAHs, diesel, and oil detected in soil and groundwater do not exceed applicable RBCs.

9: MOBILE SHOP AREA (MO)

Background. Following the demolition of the former paint, mobile, and oil shops, new paint, mobile, and oil shop buildings were constructed south of the purchasing building. A shallow soil sample (less than 2 ft) was collected from one direct-push boring in the drum storage area of the mobile shop and analyzed for diesel and oil. No diesel or oil was detected in the soil sample.

Data Gap Evaluation. Analysis of soil and groundwater in the vicinity of the oil shop and paint shop has not been completed.

Data Gap Investigation Results

Five borings were completed in the Mobile Shop area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 9.

MOBILE SHOP AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
MO-	171	GS	0.8	3.5	15	No	No	2/8/2018	-124.24112	43.43379
MO-	172	SS	0.7	3.8	15	No	No	2/8/2018	-124.24115	43.43364
MO-	173	GS	0.7	3.3	15	Slight	No	2/8/2018	-124.24093	43.43361
MO-	174	SS	0.3	–	15	No	No	2/9/2018	-124.24041	43.43330
MO-	175	GS	0.8	3.1	15	No	No	2/9/2018	-124.24023	43.43370

GS = Both groundwater and soil samples collected
SS = Soil sample collected only
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

Soil Analytical Results

One soil sample (MO-173-14) was analyzed from the Mobile Shop area. Laboratory results are summarized in Table 16 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Mobile Shop area contains metals. Chemical analytical results indicate PAHs, diesel, and oil were not detected in soil sample MO-173-14.

> **Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in soil sample MO-173-14. With the exception of arsenic, chemical analytical results indicate other metals were detected below applicable RBCs. Arsenic was detected in MO-173-14 at a concentration of 3.78 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

Groundwater Analytical Results

Three groundwater samples (MO-171-W, MO-173-W, and MO-175-W) were analyzed from the Mobile Shop area. Laboratory results are summarized in Table 17 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Mobile Shop area contains metals, VOCs, PAHs, diesel, and oil.

> **Metals.** Chemical analytical results indicate silver and thallium were not detected in groundwater samples. Chemical analytical results indicate other metals were detected in groundwater are below applicable RBCs.

PAHs. Chemical analytical results indicate naphthalene, 1-methylnaphthalene, and 2-methylnapthalene were detected in groundwater samples at concentrations below applicable RBCs.

Petroleum. Diesel and oil were detected in groundwater sample MO-175-W, at concentrations of 1.44 and 2.88 mg/kg, respectively, at concentrations below applicable RBCs.

Mobile Shop Area Investigation Findings

The analytical results indicate detected concentrations of arsenic in soil sample MO-173-14 exceed the RBCs for the occupational exposure scenario. Arsenic was detected in MO-173-14 at a concentration of 3.78 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the Mobile Shop area.

10: SOUTH JORDAN POINT DEBRIS AREA (JP)

Background. According to previous report findings, the southern portion of Jordan Point was used as a disposal area for mill-related fill and construction debris. The debris material includes metal plates and scrap, wires, and building material (including asbestos-containing transite siding). Thirteen test pits were completed in the disposal area and four samples of suspected asbestos-containing material analyzed for asbestos. Three of the samples analyzed contained asbestos.

Data Gap Evaluation. The use of Jordan Point as a former disposal area for various mill debris (metals, building materials, and fill soil), suggest that TPH and metals may be present in the fill.

Data Gap Investigation Results

Four borings were completed in the South Jordan Point Debris area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figures 7 and 9.

SOUTH JORDAN POINT DEBRIS AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
JP-	188	GS	0.0	7.5	10	No	No	2/13/2018	-124.23925	43.43105
JP-	189	SS	0.0	7.5	10	No	No	2/13/2018	-124.23908	43.43142
JP-	190	SS	0.0	7.0	10	No	No	2/13/2018	-124.23854	43.43139
JP-	191	GS	2.1	6.0	15	No	No	2/13/2018	-124.24007	43.43274

GS = Both groundwater and soil samples collected
SS = Soil sample collected only
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

Soil Analytical Results

Four soil samples (JP-188-6, JP189-7, JP-190-7, and JP-191-8) were analyzed from the South Jordan Point Debris area. Laboratory results are summarized in Table 18 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Jordan Point area contains metals, PAHs, diesel, and oil. PCBs were not detected in soil samples

> **Metals.** Chemical analytical results indicate antimony, selenium, silver, and thallium were not detected in South Jordan Point Debris area soil samples. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected soil below applicable RBCs. Arsenic was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations of 2.39, 4.66, and 7.07 mg/kg, respectively, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations of 19.7, 15.6, and 38.3 mg/kg, respectively, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).
>
> **PAHs.** PAHs were not detected in soil sample JP-191-8. Chemical analytical results indicate a total of 17 PAH compounds were detected in the remaining soil samples at concentrations below applicable RBCs.
>
> **Petroleum.** Analytical results indicate diesel, oil, and gasoline were not detected in sample JP-191-8. Diesel and oil were detected in sample JP-188-6 at concentrations of 48 and 1,980 mg/kg respectively, which are below applicable RBCs.

Groundwater Analytical Results

Two groundwater samples (JP-188-W and JP-191-W) were analyzed from the South Jordan Point Debris area. Laboratory results are summarized in Table 19 at the end of this report and in the analytical laboratory report included as Appendix B. VOCs were not detected in groundwater samples collected from the South Jordan Point Debris area. Chemical testing indicates that groundwater in the South Jordan Point Debris area contains metals, PAHs, diesel, and oil.

> **Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in groundwater samples. Chemical analytical results indicate other metals were detected below applicable RBCs.
>
> **PAHs**. Chemical analytical results indicate benzo(g,h,i)perylene, naphthalene, and 2-methylnapthalene were detected in groundwater samples at concentrations below

applicable RBCs. In addition, benzo(g,h,i)perylene and naphthalene were also detected in the laboratory blank and likely represent a laboratory contaminant not actually present in the sample.

Petroleum. Gasoline was not detected in groundwater samples. Diesel was detected in groundwater samples JP-188-W and JP-191-W at concentrations of 0.674 and 0.179 mg/L, respectively. Oil was detected in samples JP-188-W and JP-191-W at concentrations of 1.31 and 0.21 mg/L respectively, which is below the applicable RBCs.

Jordan Point Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil samples JP-188-6, JP189-7, and JP-190-7 exceed the occupational RBCs. Arsenic was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations ranging from 2.39 to 7.07 mg/kg, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations ranging from 15.6 to 38.3 mg/kg, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the South Jordan Point Debris area.

11: BOILER AND POWERHOUSE AREA (BP)

Background. Based on information from a former Weyerhaeuser employee, the mill operated two boilers to provide heat to the mill and for drying kilns.

Data Gap Evaluation. The fuel used for the boilers consisted of fuel oil and hog fuel. There is potential for fuel oil to be present beneath the former boiler and powerhouse location. There is no TPH, PAHs, metals, and VOCs data from the area of the boilers and powerhouse prior to this investigation.

Data Gap Investigation Results

Twenty-five borings were completed in the Boiler and Powerhouse area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 10.

BOILER AND POWERHOUSE AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
BP-	101	GS	0.0	1.8	35	Slight	No	1/29/2018	-124.23968	43.43561
BP-	102	GS	2.1	2.2	20	Heavy	Slight	1/29/2018	-124.23975	43.43563
BP-	103	SS	0.0	1.9	20	No	No	1/30/2018	-124.23978	43.43572
BP-	104	SS	0.0	2.4	20	Slight	No	1/30/2018	-124.23981	43.43560
BP-	105	NS	0.6	2.3	20	Moderate	No	1/30/2018	-124.23966	43.43576
BP-	106	SS	0.0	2.5	20	No	No	1/30/2018	-124.23950	43.43590
BP-	107	SS	0.0	1.8	20	No	No	1/30/2018	-124.23949	43.43580
BP-	108	SS	0.0	2.5	20	Slight	No	1/30/2018	-124.23967	43.43588
BP-	109	GW		2.8	10	No	No	1/30/2018	-124.23982	43.43589
BP-	119	GS	75.0	3.5	45	Heavy	Heavy	1/31/2018	-124.23940	43.43540
BP-	120	SS	2.9	3.2	20	Moderate	Moderate	2/1/2018	-124.23951	43.43556
BP-	121	GS	3.3	3.8	30	No	Slight	2/1/2018	-124.23928	43.43522
BP-	122	SS	2.0	3.7	15	No	Slight	2/1/2018	-124.23928	43.43531
BP-	123	SS	3.2	3.8	15	No	No	2/1/2018	-124.23968	43.43508
BP-	124	NS	0.6	3.7	15	No	No	2/1/2018	-124.23944	43.43519
BP-	125	SS	0.0	3.6	20	No	Slight	2/1/2018	-124.23932	43.43534
BP-	126	SS	0.3	3.3	15	Slight	No	2/1/2018	-124.23950	43.43537
BP-	127	SS	0.0	-	15	Slight	No	2/1/2018	-124.23929	43.43551
BP-	128	SS	107.0	3.8	15	Moderate	Heavy	2/2/2018	-124.23927	43.43542
BP-	129	SS	140.0	4.0	15	Heavy	Heavy	2/2/2018	-124.23923	43.43543
BP-	130	NS		2.0	5.5	No	No	2/2/2018	-124.23918	43.43544
BP-	187	GS	2.4	-	15	No	No	2/12/2018	-124.23909	43.43547

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
BP-	200	SS	13.0	-	15	Moderate	Heavy	2/14/2018	-124.23949	43.43549
BP-	201	NS		-	5	No	No	2/14/2018	-124.23967	43.43533
BP-	202	GS	0.5	2.0	10	No	No	2/14/2018	-124.23965	43.43531

GW = Groundwater sample collected only
GS = Both groundwater and soil samples collected
SS = Soil sample collected only
NS = No samples were collected from this boring
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

A slight sheen was observed in boring BP-101 between a depth of 7 and 12 ft. A heavy sheen and slight odor were observed in boring BP-102 between a depth of 8 and 17 ft. A slight sheen was observed in boring BP-104 between a depth of 10 and 14 ft. A moderate sheen was observed in boring BP-105 between a depth of 8.5 and 13.5 ft. A slight sheen was observed in boring BP-108 between a depth of 8.7 and 14.5 ft. A heavy odor was observed in boring BP-119 between a depth of 8 and 20 ft; a heavy sheen was observed between 11 and 24 ft; a moderate odor was observed between a depth of 20 and 28 ft; a moderate sheen was observed between 24 and 26 ft; a slight sheen was observed between 26 and 29 ft; a slight sheen and/or staining of the acetate sample sleeves was observed between 29 and 43.5 ft. A moderate sheen and odor was observed in boring BP-120 between a depth of 8 and 9 ft. A slight odor was observed in boring BP-122 at a depth of between 6 and 7 ft. A slight odor was observed in boring BP-125 isolated at a depth of 14 ft. A slight sheen was observed in boring BP-126 at a depth of between 5 and 6 ft. A slight sheen was observed in boring BP-127 isolated at a depth of 9 ft. A moderate sheen and heavy odor were observed in boring BP-128 at a depth of between 7.5 and 14 ft. A heavy odor was observed in boring BP-129 isolated at a depth of 6.5 ft, a slight to moderate sheen was observed between 8 and 10 ft, and a moderate odor and moderate to heavy sheen were observed from 10 to 13.5 ft. A heavy odor and moderate sheen were observed in boring BP-200 between a depth of 6 and 9.5 ft.

Soil Analytical Results

Twenty-five soil samples (BP-101-7, BP-101-30, BP-102-12, BP-102-20, BP-103-13, BP-104-13, BP-104-20, BP-106-13, BP-107-12, BP-108-13, BP-108-17, BP-119-8, BP-119-17, BP-119-33, BP-121-9, BP-125-13, BP-126-6, BP-127-8, BP-129-8, BP-129-14, BP-187-11, BP-200-8, BP-200-13, BP-202-4, and BP-202-10) were analyzed from the Boiler and Powerhouse area. Laboratory results are summarized in Table 20 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Boiler and Powerhouse area contains metals, VOCs, PAHs, gasoline, diesel, and oil. Chemical analytical results indicate PCBs were not detected in soil samples

Metals. Chemical analytical results indicate antimony, selenium, silver, and thallium were not detected in Boiler and Powerhouse area soil samples.

With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs.

Arsenic was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 3.68 and 4.17 mg/kg, respectively, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

Chromium was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 11.6 and 13.8 mg/kg which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

VOCs. A total of 13 VOC compounds were detected in soil. With the Chemical analytical results indicate VOCs were detected below applicable RBCs.

PAHs. With the exception of 2-chloronapthalene, chemical analytical results indicate 18 PAH compounds were detected in soil samples from the Boiler and Powerhouse area. PAHs were not detected in soil samples BP-101-30, BP-102-20, BP-103-13, BP-104-20, BP-106-13, BP-107-12, BP-108-17, BP-127-8, BP-200-13, and BP-202-10.

With the exception of benzo(a)pyrene and naphthalene, PAHs were detected at concentrations below applicable RBCs. Benzo(a)pyrene was detected in soil sample BP-119-8 at a concentration of 2.27 mg/kg, which exceeds the occupational RBC of 2.1 mg/kg.

Naphthalene was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 92.0 and 50.4 mg/kg, which exceed the occupational RBCs of 23 mg/kg.

Petroleum. Analytical results indicate gasoline was detected in soil samples BP-102-12 and BP-119-8 at concentrations of 0.803 and 161 mg/kg, respectively, which are below applicable RBCs.

Diesel was detected in soil samples BP-102-12, BP-108-13, BP-119-8, BP-129-8, BP-129-14, and BP-200-8. Diesel was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 27,660 and 10,800 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg. Diesel in soil sample BP-119-8 (27,660 mg/kg) exceeds the occupational RBC of 14,000 mg/kg.

Oil was detected in soil samples BP-102-12, BP-108-13, BP-119-8, BP-119-17, BP-129-8, BP-200-8, and BP-202-4 at concentrations ranging from 5.79 to 14,000 mg/kg. Oil was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 14,000 and 5,100 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg.

Groundwater Analytical Results

Six groundwater samples (BP-102-W, BP-109-W, BP-119-W, BP-121-W, BP-187-W, and BP-202-W) were analyzed from the Boiler and Powerhouse area. Laboratory results are summarized in Table 21 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Boiler and Powerhouse area contains metals, VOCs, PAHs, gasoline, diesel, and oil.

Metals. Chemical analytical results indicate beryllium, cadmium, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate other metals were detected in groundwater below applicable RBCs.

VOCs. Chemical analytical results indicate naphthalene and n-propylbenzene were detected in groundwater from BP-119-W at concentrations of 0.0249 and 0.000686 mg/L, respectively. Naphthalene was detected in BP-119-W at a concentration less than the RBC of 0.5 mg/L.

PAHs. Chemical analytical results indicate a total of 10 PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

Petroleum. Gasoline was detected in BP-119-W at a concentration of 0.0929 mg/L, which is below the RBC of 14 mg/L. Diesel was detected in groundwater samples BP-102-W, BP-119-W, BP-187-W, and BP-202-W at concentrations ranging from 0.0428 and 1.34 mg/L. Oil was detected in samples BP-119-W, BP-187-W, and BP-202-W at concentrations ranging from 0.148 and 1.25 mg/L, which are below the applicable RBCs.

Boiler and Powerhouse Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil samples BP-102-12 and BP-202-4 exceed the applicable RBCs. The concentration of two PAH compounds (benzo(a)pyrene and naphthalene), diesel, and oil in soil from BP-119-8 and BP-129-8 exceed the applicable RBCs.

Arsenic was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 3.68 and 4.17 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 11.6 and 13.8 mg/kg, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

Analytical results indicate gasoline was detected in soil samples BP-102-12 and BP-119-8 at concentrations of 0.803 and 161 mg/kg, respectively, which are below applicable RBCs. Diesel was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 27,660 and 10,800 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg. Diesel in soil sample BP-119-8 (27,660 mg/kg) exceeds the occupational RBC of 14,000 mg/kg.

With the exception of benzo(a)pyrene and naphthalene, PAHs were detected at concentrations below applicable RBCs. Benzo(a)pyrene was detected in soil sample BP-119-8 at a concentration of 2.27 mg/kg, which exceed the occupational RBCs of 2.1 mg/kg. Naphthalene was detected in soil samples BP-119-8 and BP-129-8 at concentration of 92.0 and 50.4 mg/kg, which exceed the occupational RBCs of 23 mg/kg.

The absence of elevated concentrations of diesel and oil in other soil samples, including borings adjacent to borings BP-119 and BP-129, suggests soil exceeding the construction worker RBCs for diesel and oil is limited to a small area surrounding borings BP-119 and BP-129. The absence of elevated concentrations of diesel and oil in soil samples BP-119-17 and BP-119-33 suggests soil exceeding the applicable RBCs is limited to depths shallower than 17 ft. The volume of soil exceeding the occupational RBC for benzo(a)pyrene naphthalene, diesel, and oil and the construction worker RBC for diesel and oil is estimated to be approximately 6,100 cubic yards.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the Boiler and Powerhouse area.

12: DEBARKER AREA (DB)

Background. Based on historical aerial photographs, a debarker and saw mill appear to have been in operation west of the purchasing building.

Data Gap Evaluation. Drips and/or leaks of hydraulic fluids may have occurred at the debarker. However, there have been no previous investigations in this area.

Data Gap Investigation Results

Seventeen borings were completed in the Debarker area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 7.

DEBARKER AREA EXPLORATION SUMMARY

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
DB-	155	NS		-	7.0	No	No	2/7/2018	-124.24136	43.43452
DB-	156	GS	0.4	1.6	7.5	Slight	Slight	2/7/2018	-124.24107	43.43467
DB-	157	SS		-	5.3	No	No	2/7/2018	-124.24127	43.43435
DB-	158	NS	0.2	-	5.1	No	No	2/7/2018	-124.24117	43.43441
DB-	159	SS	0.6	6.8	7.7	No	Slight	2/7/2018	-124.24132	43.43438
DB-	160	SS	0.4	5.2	15.0	No	No	2/7/2018	-124.24107	43.43439
DB-	161	SS	0.5	-	30	Slight	No	2/7/2018	-124.24120	43.43417

Area Prefix	Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
DB-	162	GS	1.8	7.3	25	Heavy	Heavy	2/7/2018	-124.24137	43.43433
DB-	163	GS	1.3	11.3	15	No	No	2/8/2018	-124.24139	43.43431
DB-	164	NS	1.2	-	7.5	No	No	2/8/2018	-124.24140	43.43437
DB-	165	SS	1.4	-	15	No	No	2/8/2018	-124.24146	43.43440
DB-	166	SS	1.2	-	15	No	No	2/8/2018	-124.24133	43.43430
DB-	167	SS		-	7.0	No	No	2/8/2018	-124.24132	43.43443
DB-	168	SS	0.9	5.6	15	No	No	2/8/2018	-124.24117	43.43419
DB-	169	SS	0.5	5.5	20	Slight	No	2/8/2018	-124.24111	43.43414
DB-	170	SS	1.0	4.8	20	Slight	No	2/8/2018	-124.24122	43.43402
DB-	199	GS	1.2	-	15	No	No	2/14/2018	-124.24255	43.43507

GS = Both groundwater and soil samples collected
SS = Soil sample collected only
NS = No samples were collected from this boring
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

A slight sheen was observed in borings DB-156, DB-161, DB-169, and DB-170. In boring DB-162, a moderate to heavy sheen was observed from 8 to 11 ft, a moderate to heavy odor was observed from 8 to 10 ft, a slight to moderate odor was observed from 5 to 8 ft, and a slight sheen was observed from 12 to 20 ft. A slight odor was observed in borings DB-156 between 6 and 7 ft and DB-159 between 7 and 8 ft. Several of the explorations in the DB area encountered refusal at similar depths. The obstruction may be a former concrete pad that appears to have been buried and paved over.

Soil Analytical Results

Twelve soil samples (DB-159-7, DB-161-13, DB-161-30, DB-162-10, DB-162-21, DB-163-11, DB-165-10, DB-166-11, DB-169-12, DB-169-16, DB-170-13, and DB-199-11) were analyzed from the Debarker area. Laboratory results are summarized in Table 22 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical analytical results indicate VOCs and gasoline were not detected in soil samples. Chemical testing indicates that soil in the Debarker area contains metals, PAHs, diesel, and oil.

Metals. Chemical analytical results indicate antimony, cadmium, selenium, silver, and thallium were not detected in Debarker area soil samples. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in soil samples DB-162-10 and DB-199-11 at concentrations of 3.75 and 3.87 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample DB-199-11 at a concentration of 7.46 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

PAHs. PAHs were not detected in soil samples DB-170-13 and DB-199-11. Chemical analytical results indicate a total of 17 PAH compounds were detected in soil samples at concentrations below applicable RBCs.

Petroleum. Analytical results indicate gasoline was not detected in sample DB-199-11. Diesel was detected in samples DB-162-10 and DB-166-11 at concentrations of 1,480 and 1.6 mg/kg respectively, which are below applicable RBCs. Oil was detected in samples DB-163-11, DB-166-11, and DB-169-12 at concentrations ranging from 4.15 to 26 mg/kg, which are below applicable RBCs. Oil detected in DB-162-10 at a concentration of 6,130 mg/kg, which exceeds applicable RBCs.

Groundwater Analytical Results

Three groundwater samples (DB-162-W, DB-163-W, and DB-199-W) were analyzed from the Debarker area. Laboratory results are summarized in Table 23 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Debarker area contains metals, 1,2,3-trimethylbenzene, PAHs, diesel, and gasoline.

Metals. Chemical analytical results indicate antimony, beryllium, cadmium, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate metals were detected below applicable RBCs.

VOCs. VOCs were not detected in groundwater samples DB-163-W and DB-199-W. Chemical analytical results indicate 1,2,3-trimethylbenzene was detected in groundwater sample DB-162-W at concentration of 0.000369 mg/L. No applicable RBC is established for 1,2,3-trimethylbenzene.

PAHs. Chemical analytical results indicate a total of 11 PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

Petroleum. Oil was not detected in groundwater samples. Gasoline was not detected in groundwater sample DB-199-W. Diesel was detected in groundwater sample DB-163-W at a concentration of 0.0494 mg/L, which is below the applicable RBC. Gasoline was detected in sample DB-163-W at a concentration of 0.0324 mg/L, which is below the applicable RBC of 14 mg/L. Gasoline was also detected in the laboratory blank.

Debarker Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil samples DB-162-10 and DB-199-11 exceed the occupational RBCs. Arsenic was detected in soil samples DB-162-10 and DB-199-11 at concentrations of 3.75 and 3.87 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample DB-199-11 at a concentration of 7.46 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

Diesel was detected in samples DB-162-10 and DB-166-11 at concentrations of 1,480 and 1.6 mg/kg respectively, which are below applicable RBCs. Oil detected in DB-162-10 at a concentration of 6,130 mg/kg, which exceeds the construction worker RBC.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs.

13: FIRE-SUPPRESSION DIESEL AST AREA (FS)

Background. A former diesel aboveground storage tank (AST) cradle was identified by GRI adjacent to the fire suppression building. The field team collected a shallow soil sample below the footprint of the former AST to evaluate for the potential the drips and/or leaks of diesel fuel that may have occurred.

Data Gap Investigation Results

One shallow soil sample (FSDAST) was collected from the former AST area. Exploration data and observations are summarized below. The exploration location is shown on Figure 10.

DEBARKER AREA EXPLORATION SUMMARY

Exploration ID #	Sample collected	PID (ppm)	DTW (ft)	TD (ft)	Sheen	Odor	Date Completed	Longitude	Latitude
FSDAST	SS	0.0	-	1.0	No	No	2/14/2018	-124.23930	43.43588

SS = Soil sample collected only
PID = Highest concentration of VOCs detected, in parts per million
DTW = Depth to groundwater, in ft
TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

Soil Analytical Results

One soil sample (FSDAST) was analyzed for metals, PAHs, and Dx. Laboratory results are summarized in Table 24 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil metals, PAHs, diesel, and oil.

Metals. Chemical analytical results indicate selenium, silver, and thallium were not detected. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected at 3.07 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected at 743 mg/kg, which exceeds the applicable RBCs for chromium (VI). However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is greater than the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

PAHs. Chemical analytical results indicate a total of 16 PAH compounds were detected in soil at concentrations below applicable RBCs.

Petroleum. Analytical results indicate diesel and oil were detected at concentrations of 701 and 361 mg/kg, respectively, which are below applicable RBCs.

Fire-Suppression Building Investigation Findings

The analytical results indicate detected concentrations of arsenic (3.07 mg/kg) and chromium (743 mg/kg) in soil exceed the applicable RBCs.

FINDINGS AND CONCLUSIONS

Activities conducted during investigation included soil and groundwater sample collection from 104 direct-push explorations and three surface soil samples at the site. The following summarizes the findings of the investigation.

General. Subsurface soils and groundwater at the site generally contain low concentrations of metals, PAHs, and petroleum hydrocarbons. The analytical results of soil and groundwater samples collected during this work address recommendations in the NFA determination issued by the DEQ in 2006 to delineate the vertical and areal extent of low levels of residual TPH by supplementary investigation.

1: Fuel-Oil Release Area (FO). The analytical results indicate the concentration of arsenic and chromium in soil sample FO-118-4 and naphthalene in soil sample FO-111-8 exceed the applicable RBC. Arsenic was detected in sample FO-118-4 at a concentration of 3.12 mg/kg, which exceeds the applicable RBC but is below the natural background concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample FO-118-4 at a concentration of 7.5 mg/kg, which exceeds the applicable RBC but is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic and chromium concentrations represent natural background concentrations and are not indicative of anthropogenic sources.

Naphthalene was detected in soil sample FO-111-8 at a concentration of 46.8 mg/kg from the VOC analysis and 0.372 mg/kg from the PAH analysis. The concentration of naphthalene exceeds the occupational RBCs of 23 mg/kg. Elevated concentrations of naphthalene were not disclosed in borings FO-114 and FO-116, which suggests soil exceeding the occupational RBC for naphthalene is limited to a small area surrounding boring FO-111. A slight petroleum sheen and light odor were observed in boring FO-111 from 8 to 10 ft. Based on field observations and chemical data collected for this assessment, the volume of soil exceeding the applicable RBC for naphthalene is estimated to be approximately 200 cubic yards.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs in the Fuel-Oil Release area.

2: Mineral Spirits Release Area (MS). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for soil or groundwater. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

3: Truck Scales and Carpenter Shop (TS/CS). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for soil or groundwater. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

4: Chip Truck Hydraulic Lift Area (CT). The analytical results indicate the detected concentration of oil (6,190 mg/kg) in soil exceeds the construction worker RBC (4,600 mg/kg). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for groundwater. Based on the results of this investigation, additional characterization does not appear to be necessary at this time.

5: Hog Fuel Hydraulic Lift Area (HF). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for soil or groundwater. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

6: Stream Channel Area (SC). The analytical results indicate detected concentrations of arsenic and chromium in soil samples SC-205-1 (3.12 mg/kg and 80.3 mg/kg, respectively) and SC-206-1 (4.84 mg/kg and 7.11 mg/kg, respectively) exceed the occupational RBC (1.9 mg/kg and 6.3 mg/kg, respectively), and chromium in soil sample SC-205-1 also exceeds the construction worker RBC (49 mg/kg). In our opinion, the elevated arsenic concentration likely represents natural background concentration and is not indicative of anthropogenic sources. Based on receiving site stormwater runoff and the shallow depth of sample collection, the elevated chromium concentration in SC-205-1 of 80.3 mg/kg potentially represents an anthropogenic source. However, the concentration of chromium in SC-205-1 is less than the natural background concentration of 240 mg/kg and, in our opinion, additional characterization and remedial mitigation do not appear to be necessary at this time.

7: North and South "Lowerators" Area (NL/SL). The analytical results indicate detected concentrations of arsenic and chromium in soil sample NL-182-5 exceed the occupational RBCs. Arsenic was detected in sample NL-182-5 at a concentration of 3.97 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in NL-182-5 at a concentration of 8.76 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg, but is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic and chromium concentrations represent natural background concentrations and are not indicative of anthropogenic sources.

Chemical analytical results indicate 13 PAH compounds were detected in soil samples at concentrations below applicable RBCs. Oil was detected in soil sample SL-180-10 at a concentration of 61,500 mg/kg that exceeds the applicable occupational and construction worker RBCs of 4,600 and 14,000 mg/kg, respectively. A moderate petroleum odor was observed from 6 to 10 ft in boring SL-180. Using field observations, samples were selected for analysis to determine the lateral and vertical extent of compounds within soil that potentially exceed applicable RBCs. In the South "Lowerator" area, field observations did not suggest potential RBC exceedances below a depth of 10 ft. Additionally, field observations did not disclose potential contamination in boring SL-181; therefore, soil samples were not selected for analysis from boring SL-181. Borings NL-182, SL-178, SL-179 met refusal at about 5 to 7 ft due to encountering concrete. Based on field observations, it appeared that the vaults containing the in-ground hydraulic lift for the lowerators were filled with concrete during the mill decommissioning activities. In addition, it appeared that the detected analytes that exceed RBCs are contained in the concrete vault and affected soils are likely limited to the interior of the north lowerator vault and the area to the northwest of the south lowerator.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs for the North and South "Lowerators" area.

Based on the results of this investigation, additional characterization does not appear to be necessary at this time.

8: Former Mobile/Paint/Fuel Shops Area (SH). The analytical results indicate arsenic was detected in SH-177-5 at a concentration of 4.33 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic concentration likely represents a natural background concentration and is not indicative of anthropogenic sources.

The analytical results indicate the concentration of analytes in groundwater do not exceed applicable RBCs. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

9: Mobile Shop Area (MO). The analytical results indicate arsenic was detected in MO-173-14 at a concentration of 3.78 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic concentration likely represents a natural background concentration and is not indicative of anthropogenic sources.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs for the Mobile Shop area. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

10: South Jordan Point Debris Area (JP). The analytical results indicate detected concentrations of arsenic and chromium in soil samples JP-188-6, JP-189-7, and JP-190-7 exceeding the occupational RBCs. Arsenic was detected in soil samples JP-188-6, JP-189-7, and JP-190-7 at concentrations ranging from 2.39 to 7.07 mg/kg, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples JP-188-6, JP-189-7, and JP-190-7 at concentrations ranging from 15.6 to 38.3 mg/kg which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg, but are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic and chromium concentrations likely represent natural background concentrations and are not indicative of anthropogenic sources.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs for the South Jordan Point Debris area. Based on the results of this investigation, additional characterization and remedial mitigation (for compounds other than asbestos) do not appear to be necessary at this time.

Previous assessments in the Jordan Point area encountered asbestos containing materials in the Jordan Point area (PES, 2006). Asbestos concentration and distribution were not evaluated during the Data Gap Investigation.

11: Boiler and Powerhouse Area (BP). The analytical results indicate detected concentrations of arsenic and chromium in soil samples BP-102-12 and BP-202-4 exceed the applicable RBCs. The concentration of benzo(a)pyrene, naphthalene, and diesel in soil from BP-119-8 and BP-129-8 exceed the applicable RBCs.

Arsenic was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 3.68 and 4.12 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 11.6 and 13.8 mg/kg which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic and chromium concentration likely represents a natural background concentration and are not indicative of anthropogenic sources.

Analytical results indicate gasoline was detected in soil samples BP-102-12 and BP-119-8 at concentrations of 0.803 and 161 mg/kg, respectively, which are below applicable RBCs. Diesel was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 27,660 and 10,800 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg. Diesel in soil sample BP-119-8 (27,660 mg/kg) exceeds the occupational RBC of 14,000 mg/kg. Oil was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 14,000 and 5,100 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg.

With the exception of benzo(a)pyrene and naphthalene, PAHs were detected at concentrations below applicable RBCs. Benzo(a)pyrene was detected in soil sample BP-119-8 at a concentration of 2.27 mg/kg, which exceeds the occupational RBCs of 2.1 mg/kg. Naphthalene was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 92.0 and 50.4 mg/kg, which exceed the occupational RBCs of 23 mg/kg.

Field observations and chemical analytical data, suggests soil exceeding the occupational RBCs for the two PAH compounds, diesel, and oil, and the construction worker RBCs for diesel and oil is limited to a small area surrounding borings BP-119 and BP-129. Based on field observations and analytical testing, the volume of soil exceeding the occupational RBCs for benzo(a)pyrene naphthalene, diesel, and oil and the construction worker RBCs for diesel and oil is estimated to be approximately 6,100 cubic yards.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the Boiler and Powerhouse area.

Based on the results of this investigation, previously unidentified soil and groundwater contamination were encountered in the Boiler and Powerhouse area. Analytical testing indicates that the concentration of PAHs, diesel, and oil exceed applicable RBCs.

12: Debarker Area (DB). The analytical results indicate detected concentrations of arsenic and chromium in soil samples DB-162-10 and DB-199-11 exceed the occupational RBCs. Arsenic was detected in soil samples DB-162-10 and DB-199-11 at concentrations of 3.75 and 3.87 mg/kg, respectively, which exceed the occupational RBC of 1.9 mg/kg but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample DB-199-11 at a concentration of 7.46 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg

(DEQ, 2018). Elevated arsenic and chromium concentration likely represents a natural background concentration and are not indicative of anthropogenic sources.

Diesel was detected in samples DB-162-10 and DB-166-11 at concentrations of 1,480 and 1.6 mg/kg respectively, which are below applicable RBCs. Oil detected in DB-162-10 at a concentration of 6,130 mg/kg, which exceeds the applicable construction worker RBC.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

13: Fire-Suppression Diesel AST Area. The analytical results indicate detected concentrations of arsenic (3.07 mg/kg) and chromium (743 mg/kg) in soil exceed the occupational RBCs of 1.9 mg/kg and 6.3 mg/kg, respectively. In addition, detected concentrations of chromium (743 mg/kg) exceeds the construction worker RBC of 49 mg/kg. In our opinion, the elevated arsenic concentration likely represents a natural background concentration and are not indicative of anthropogenic sources. The elevated chromium concentration may represent an anthropogenic source related to paint used on the fire suppression building.

Remedial Mitigation

Current chemical concentrations from soil and groundwater testing compared to generic RBCs indicate subsurface soils in the FO, CT, SC, NL/SL, SH, MO, JP, BP, DB, and fire suppression building areas of the site contain PAHs, metals, and/or petroleum hydrocarbons at concentrations that are greater than the applicable RBCs considered. Figure 11, RBC Exceedance in Soil North Area, and Figure 12, RBC Exceedance in Soil South Area, present the approximate areas where the concentration of residual contamination from historical industrial activities are greater than applicable RBCs. Concentrations detected in groundwater samples are below the applicable RBCs considered.

Detected metal concentrations in soil at the SC, MO, SH, and JP areas that exceed the applicable RBCs are generally less than the regional default natural background concentrations for metals in the Coast Range (DEQ, 2018). Only the Fire-Suppression Diesel AST area sample result for chromium (743 mg/kg) is greater than the regional default natural background concentration (240 mg/kg) for the Coast Range (DEQ, 2018).

The range of PAHs, metals, and/or petroleum hydrocarbons concentrations detected during this investigation are generally within the range of concentrations detected by the previous environmental investigation completed at the site by others (PES, 2006) that were used as the basis for the NFA determination issued by DEQ in 2006. However, where comparative analysis exists, the concentration of PAHs, metals, and/or petroleum hydrocarbons detected during this investigation are typically not detected or at concentrations less than those detected in 2006. The 2006 investigation compared analytical results to a combination of regulatory levels that included DEQ RBCs published in 2003 and EPA Region 9

Preliminary Remediation Goals, dated October 2004. This report compares analytical results to the current RBCs published by DEQ in 2018.

Consistent with the recommendation of the NFA determination, the recent data collected for this investigation should be used to evaluate if subsequent remedial mitigation efforts are necessary to reduce the concentration of contaminants in soil. If land use activities at the site change, we recommend that remedial mitigation efforts be considered to:

- mitigate future potential risk to human health, safety, welfare and the environment by lowering the residual concentrations or eliminating exposure; and,
- satisfy the requirements and recommendations of the NFA determination.

Based on comparison of the analytical results from the Data Gap Investigation to current generic RBCs developed by DEQ (2018) the following areas evaluated in this investigation have concentrations of PAHs, metals, and/or petroleum hydrocarbons that exceed RBCs for soil and we recommend mitigation in these areas if land use activities at the site change:

- **Fuel Oil Release Area** (**FO**): Naphthalene (46.8 mg/kg) exceeds the occupational RBC (23 mg/kg)

- **Chip Truck Hydraulic Lift Area** (**CT**). Oil (6,190 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)

- **"Lowerators" Area** (**NL/SL**) Oil (61,500 mg/kg) exceeds occupational and construction worker RBC of 4,600 and 14,000 mg/kg, respectively

- **Boiler and Powerhouse Area** (**BP**):

  -Benzo(a)pyrene (2.27 mg/kg) exceeds occupational RBC (2.1 mg/kg)
  -Naphthalene (92 mg/kg) exceeds the occupational RBC (23 mg/kg)
  -Diesel (27,660 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
  -Oil (14,000 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)

- **Debarker Area** (**DB**): Oil (6,130 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)

- **Fire-Suppression Diesel AST Area**: Chromium (743 mg/kg) exceeds the construction worker RBC (49 mg/kg) and the default natural background concentration (240 mg/kg) for the Coast Range (DEQ, 2018).

LIMITATIONS

This report has been prepared to assist in evaluating soil and groundwater conditions at the above-referenced site. The scope of work was limited to the specific project, location, and activities described herein. In the performance of an assessment of this type, specific information is obtained at specific locations at specific times. This report may be used only by the client and project team within a reasonable time from its issuance. Land-use, on- and off-site conditions, regulatory requirements or other factors may change over time, and additional work may be required with the passage of time.

The conclusions and recommendations presented in this report are based on our interpretation of the information obtained through the assessment procedures described in this report. No other warranty or representation, either expressed or implied, is included or intended in this report.

We appreciate the opportunity to be of service to you on this project. Please contact the undersigned if you have any questions regarding this report or require further assistance.

SIGNATURES

Report prepared by Mike Marshall, RG, CEG

Signature
7/30/2018
Date

Technical and corporate review by George A. Freitag, RG, CEG

CERTIFIED
OREGON
GEORGE A. FREITAG
E1380
ENGINEERING GEOLOGIST

Renews 02/2019
Signature
7/30/2018
Date

This document has been submitted electronically.

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Table 1: SUMMARY OF FUEL OIL RELEASE AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)								
		Fuel Oil Release Area Soil Samples						DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		FO-111-8	FO-113-8	FO-114-13	FO-116-14	FO-118-4	FO-203-9	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	NA	NA	ND	NA	NE	NE	NE
	Arsenic	NA	NA	NA	NA	**3.12**	NA	1.9	15	420
	Beryllium	NA	NA	NA	NA	0.106 J	NA	2,300	700	19,000
	Cadmium	NA	NA	NA	NA	ND	NA	1,100	350	9,700
	Chromium	NA	NA	NA	NA	**7.5**	NA	6.3	49	1,400
	Copper	NA	NA	NA	NA	2.84	NA	47,000	14,000	390,000
	Lead	NA	NA	NA	NA	6.54	NA	800	800	800
	Nickel	NA	NA	NA	NA	5.3	NA	22,000	7,000	190,000
	Selenium	NA	NA	NA	NA	ND	NA	NE	NE	NE
	Silver	NA	NA	NA	NA	ND	NA	5,800	1,800	49,000
	Thallium	NA	NA	NA	NA	ND	NA	NE	NE	NE
	Zinc	NA	NA	NA	NA	28.1	NA	NE	NE	NE
	Mercury	NA	NA	NA	NA	0.00807 B J	NA	350	110	2,900
VOCs	Acetone	ND	NA	0.0186	0.0133 J V3	NA	NA	NE	NE	NE
	Acrylonitrile	ND	NA	ND	ND	NA	NA	4	40	1,100
	Benzene	ND	NA	ND	ND	NA	NA	37	380	11,000
	Bromobenzene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Bromodichloromethane	ND	NA	ND	ND	NA	NA	15	230	6,300
	Bromoform	ND	NA	ND	ND	NA	NA	260	2,700	74,000
	Bromomethane	ND	NA	ND	ND	NA	NA	750	370	10,000
	N-butylbenzene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Sec-butylbenzene	0.0797	NA	ND	ND	NA	NA	NE	NE	NE
	Tert-Butylbenzene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Carbon tetrachloride	ND	NA	ND	ND	NA	NA	34	320	8,900
	Chlorobenzene	ND	NA	ND	ND	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	ND	NA	ND	ND	NA	NA	17	210	5,800
	Chloroethane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Chloroform	ND	NA	ND	ND	NA	NA	26	410	11,000
	Chloromethane	ND	NA	ND	ND	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	4-Chlorotoluene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,2-dibromoethane	ND	NA	ND	ND	NA	NA	0.73	9	250
	Dibromomethane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	ND	NA	ND	ND	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	ND	NA	ND	ND	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,1-dichloroethane	ND	NA	ND	ND	NA	NA	260	3,200	89,000
	1,2-dichloroethane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,1-dichloroethene	ND	NA	ND	ND	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	ND	NA	ND	ND	NA	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	ND	NA	ND	ND	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,1-dichloropropene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,3-dichloropropane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Trans-1,3-dichloropropene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	2,2-dichloropropane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Di-isopropyl ether	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Ethylbenzene	0.0158 J	NA	ND	ND	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Isopropylbenzene	0.0297 J	NA	ND	ND	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	0.0133 J	NA	ND	ND	NA	NA	NE	NE	NE
	2-butanone (Mek)	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Methylene chloride	ND	NA	ND	ND	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	ND	NA	ND	ND	NA	NA	1,100	12,000	320,000
	Naphthalene	**46.8**	NA	ND	ND	NA	NA	23	580	16,000
	N-propylbenzene	0.00794 J	NA	ND	ND	NA	NA	NE	NE	NE
	Styrene	ND	NA	ND	ND	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	Tetrachloroethene	ND	NA	ND	ND	NA	NA	1,000	1,800	50,000
	Toluene	ND	NA	ND	0.00057 J V3	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	ND	NA	ND	ND	NA	NA	NE	NE	NE

Table 1: SUMMARY OF FUEL OIL RELEASE AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)								
		Fuel Oil Release Area Soil Samples						DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		FO-111-8	FO-113-8	FO-114-13	FO-116-14	FO-118-4	FO-203-9	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	ND	NA	ND	ND	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	ND	NA	ND	ND	NA	NA	26	54	1,500
	Trichloroethene	ND	NA	ND	ND	NA	NA	51	130	3,700
	Trichlorofluoromethane	ND	NA	ND	ND	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	ND	NA	ND	ND	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	0.0546 J	NA	ND	0.00036 J V3	NA	NA	6,900	2,900	81,000
	1,2,3-trimethylbenzene	0.0263 J	NA	ND	ND	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	0.0261 J	NA	ND	ND	NA	NA	6,900	2,900	81,000
	Vinyl chloride	ND	NA	ND	ND	NA	NA	4.4	34	950
	Xylenes, total	0.0325 J	NA	ND	ND	NA	NA	25,000	20,000	560,000
PAHs	Anthracene	0.173	ND	ND	ND	ND	ND	350,000	110,000	>Max
	Acenaphthene	0.267	0.00185 J	0.0180	ND	ND	ND	70,000	21,000	590,000
	Acenaphthylene	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Benzo(a)anthracene	0.0626	ND	ND	ND	ND	ND	21	170	4,800
	Benzo(a)pyrene	0.0234	ND	ND	ND	ND	ND	2.1	17	490
	Benzo(b)fluoranthene	0.0275	ND	ND	ND	ND	ND	21	170	4,900
	Benzo(g,h,i)perylene	0.00965 J	ND	ND	ND	ND	ND	NE	NE	NE
	Benzo(k)fluoranthene	0.0071 J	ND	ND	ND	ND	ND	210	1,700	49,000
	Chrysene	0.0914	ND	ND	ND	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	0.00453 J	ND	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	0.222	ND	ND	ND	ND	ND	30,000	10,000	280,000
	Fluorene	0.188	0.00104 J	0.00122 J	ND	ND	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	0.00405 J	ND	ND	ND	ND	ND	21	170	4,900
	Naphthalene	0.372	ND	0.0107 J	ND	ND	ND	23	580	16,000
	Phenanthrene	0.455	ND	0.000870 J	ND	ND	ND	NE	NE	NE
	Pyrene	0.287	0.000835 J	ND	ND	ND	ND	23,000	7,500	210,000
	1-methylnaphthalene	0.0774	ND	ND	ND	ND	ND	NE	NE	NE
	2-methylnaphthalene	0.121	ND	ND	ND	ND	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	ND	ND	NE	NE	NE
Total PCBs		NA	NA	NA	NA	NA	NA	0.59	4.9	140
Diesel-Range Organics		375 J3	NA	NA	NA	3.45 J	NA	14,000	4,600	>Max
Residual-Range Organics		477 J3	NA	NA	NA	ND	NA	14,000	4,600	>Max
Gasoline-Range Organics		1.66	NA	NA	NA	NA	NA	20,000	9,700	>Max

Notes:

ND:	Not detected at concentration greater than method detection limit.
NA:	NA: Compound not analyzed for this sample.
J:	The identification of the analyte is acceptable; the reported value is an estimate.
J3:	The associated batch QC was outside the established quality control range for precision.
V3:	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.
NE:	Value not established.
>Max:	The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.
Bold:	Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 2: SUMMARY OF FUEL OIL RELEASE AREA GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/l)			
		Fuel Oil Release Area Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		FO-110-W	FO-111-W	FO-118-W	Construction & Excavation Worker
Metals	Antimony	ND	ND	NA	NE
	Arsenic	0.0124	0.00188 J	NA	6.3
	Beryllium	0.00135 J	ND	NA	270
	Cadmium	0.00108 J	ND	NA	130
	Chromium	0.119	ND	NA	9.4
	Copper	0.0925	ND	NA	5,400
	Lead	0.0193	0.000827 J	NA	>S
	Nickel	0.0823	ND	NA	>S
	Selenium	ND	ND	NA	NE
	Silver	ND	ND	NA	1,100
	Thallium	0.000342 B J	ND	NA	NE
	Zinc	1.05	ND	NA	NE
	Mercury	0.0000553 J J3	0.0000492 J J3	NA	>S
VOCs	Acetone	ND	ND	ND	NE
	Acrolein	ND J4	ND J4	ND J4	NE
	Acrylonitrile	ND	ND	ND	0.25
	Benzene	ND	ND	ND	1.8
	Bromobenzene	ND	ND	ND	NE
	Bromodichloromethane	ND	ND	ND	0.45
	Bromoform	ND	ND	ND	14
	Bromomethane	ND	ND J3	ND	1.2
	N-butylbenzene	ND	ND	ND	NE
	Sec-butylbenzene	ND	ND	ND	NE
	Tert-Butylbenzene	ND	ND	ND	NE
	Carbon tetrachloride	ND	ND	ND	1.8
	Chlorobenzene	ND	ND	ND	10
	Chlorodibromomethane	ND	ND	ND	0.61
	Chloroethane	ND	ND J3	ND	2,400
	Chloroform	ND	ND	ND	0.72
	Chloromethane	ND	ND J3 J4	ND	22
	2-Chlorotoluene	ND	ND	ND	NE
	4-Chlorotoluene	ND	ND	ND	NE
	1,2-dibromo-3-chloropropane	ND	ND	ND	NE
	1,2-dibromoethane	ND	ND	ND	NE
	Dibromomethane	ND	ND	ND	NE
	1,2-dichlorobenzene	ND	ND	ND	37
	1,3-dichlorobenzene	ND	ND	ND	NE
	1,4-dichlorobenzene	ND	ND	ND	1.5
	Dichlorodifluoromethane	ND	ND	ND	NE
	1,1-dichloroethane	ND	ND	ND	10
	1,2-dichloroethane	ND	ND	ND	NE
	1,1-dichloroethene	ND	ND J3	ND	44
	Cis-1,2-dichloroethene	ND	ND	ND	18
	Trans-1,2-dichloroethene	ND	ND	ND	180
	1,2-dichloropropane	ND	ND	ND	NE
	1,1-dichloropropene	ND	ND	ND	NE
	1,3-dichloropropane	ND	ND	ND	NE
	Cis-1,3-dichloropropene	ND	ND	ND	NE
	Trans-1,3-dichloropropene	ND	ND	ND	NE
	2,2-dichloropropane	ND	ND J3	ND	NE
	Di-isopropyl ether	ND	ND	ND	NE
	Ethylbenzene	ND	ND	ND	4.5
	Hexachloro-1,3-butadiene	ND	ND	ND	NE
	Isopropylbenzene	ND	ND	ND	51
	P-isopropyltoluene	ND	ND	ND	NE
	2-butanone (Mek)	ND	ND	ND	NE
	Methylene chloride	ND	ND	ND	NE
	4-methyl-2-pentanone (Mibk)	ND	ND	ND	NE
	Methyl tert-butyl ether	ND	ND	ND	63
	Naphthalene	ND	ND	ND	0.5
	N-propylbenzene	ND	ND	ND	NE
	Styrene	ND	ND	ND	170
	1,1,1,2-tetrachloroethane	ND	ND	ND	NE
	1,1,2,2-tetrachloroethane	ND	ND	ND	NE
	1,1,2-trichlorotrifluoroethane	ND	ND J3	ND	>S
	Tetrachloroethene	ND	ND	ND	6
	Toluene	ND	ND	ND	220
	1,2,3-trichlorobenzene	ND	ND	ND	NE

Table 2: SUMMARY OF FUEL OIL RELEASE AREA GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/l)			
		Fuel Oil Release Area Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		FO-110-W	FO-111-W	FO-118-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	ND	ND	NE
	1,1,1-trichloroethane	ND	ND	ND	1,100
	1,1,2-trichloroethane	ND	ND	ND	0.049
	Trichloroethene	ND	ND	ND	0.43
	Trichlorofluoromethane	ND	ND	ND	160
	1,2,3-trichloropropane	ND	ND	ND	NE
	1,2,4-trimethylbenzene	ND	ND	ND	6
	1,2,3-trimethylbenzene	ND	ND	ND	NE
	1,3,5-trimethylbenzene	ND	ND	ND	8
	Vinyl chloride	ND	ND J3 J4	ND	0.96
	Xylenes, total	ND	ND	ND	23
PAHs	Anthracene	ND T8	ND	ND	>S
	Acenaphthene	ND T8	ND	ND	>S
	Acenaphthylene	ND T8	ND	ND	NE
	Benzo(a)anthracene	ND T8	ND	ND	>S
	Benzo(a)pyrene	ND T8	ND	ND	>S
	Benzo(b)fluoranthene	0.0000255 J T8	0.00000721 B J	ND	>S
	Benzo(g,h,i)perylene	0.0000986 J T8	0.00000248 B J	ND	NE
	Benzo(k)fluoranthene	ND T8	ND	ND	>S
	Chrysene	0.0000355 J T8	ND	ND	>S
	Dibenz(a,h)anthracene	ND T8	ND	ND	>S
	Fluoranthene	ND T8	ND	ND	>S
	Fluorene	ND T8	ND	ND	>S
	Indeno(1,2,3-cd)pyrene	ND T8	ND	ND	>S
	Naphthalene	ND T8	0.0000242 B J	0.0000599 J	0.5
	Phenanthrene	ND T8	ND	ND	NE
	Pyrene	0.0000512 J T8	ND	ND	>S
	1-methylnaphthalene	ND T8	ND	ND	NE
	2-methylnaphthalene	ND T8	ND	ND	NE
	2-chloronaphthalene	ND T8	ND	ND	NE
	Diesel-Range Organics	NA	0.0416 J	NA	>S
	Residual-Range Organics	NA	ND	NA	>S
	Gasoline-Range Organics	NA	ND	NA	14

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the RBC for groundwater in excavation for the construction and excavation worker

Table 3: SUMMARY OF MINERAL SPIRITS AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)							
		Mineral Spirits Area Soil Samples					DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		MS-131-9	MS-131-21	MS-132-9	MS-133-9	MS-185-4	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	NA	NA	NA	NE	NE	NE
	Arsenic	NA	NA	NA	NA	NA	1.9	15	420
	Beryllium	NA	NA	NA	NA	NA	2,300	700	19,000
	Cadmium	NA	NA	NA	NA	NA	1,100	350	9,700
	Chromium	NA	NA	NA	NA	NA	6.3	49	1400
	Copper	NA	NA	NA	NA	NA	47,000	14,000	390,000
	Lead	NA	NA	NA	NA	NA	800	800	800
	Nickel	NA	NA	NA	NA	NA	22,000	7,000	190,000
	Selenium	NA	NA	NA	NA	NA	NE	NE	NE
	Silver	NA	NA	NA	NA	NA	5,800	1,800	49,000
	Thallium	NA	NA	NA	NA	NA	NE	NE	NE
	Zinc	NA	NA	NA	NA	NA	NE	NE	NE
	Mercury	NA	NA	NA	NA	NA	350	110	2,900
VOCs	Acetone	ND	ND	0.0168 J	ND	NA	NE	NE	NE
	Acrylonitrile	ND	ND	ND	ND	NA	4	40	1,100
	Benzene	ND	ND	ND	ND	NA	37	380	11,000
	Bromobenzene	ND	ND	ND	ND	NA	NE	NE	NE
	Bromodichloromethane	ND	ND	ND	ND	NA	15	230	6,300
	Bromoform	ND	ND	ND	ND	NA	260	2,700	74,000
	Bromomethane	ND	ND	ND	ND	NA	750	370	10,000
	N-butylbenzene	0.0704	ND	ND	ND	NA	NE	NE	NE
	Sec-butylbenzene	0.0442	ND	ND	ND	NA	NE	NE	NE
	Tert-Butylbenzene	ND	ND	ND	ND	NA	NE	NE	NE
	Carbon tetrachloride	ND	ND	ND	ND	NA	34	320	8,900
	Chlorobenzene	ND	ND	ND	ND	NA	8,700	4,700	130,000
	Chlorodibromomethane	ND	ND	ND	ND	NA	17	210	5,800
	Chloroethane	ND	ND	ND	ND	NA	NE	NE	NE
	Chloroform	ND	ND	ND	ND	NA	26	410	11,000
	Chloromethane	ND	ND	ND	ND	NA	25,000	25,000	700,000
	2-Chlorotoluene	ND	ND	ND	ND	NA	NE	NE	NE
	4-Chlorotoluene	ND	ND	ND	ND	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	ND	ND	ND	ND	NA	NE	NE	NE
	1,2-dibromoethane	ND	ND	ND	ND	NA	0.73	9	250
	Dibromomethane	ND	ND	ND	ND	NA	NE	NE	NE
	1,2-dichlorobenzene	ND	ND	ND	ND	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	ND	ND	ND	ND	NA	NE	NE	NE
	1,4-dichlorobenzene	ND	ND	ND	ND	NA	64	1,300	36,000
	Dichlorodifluoromethane	ND	ND	ND	ND	NA	NE	NE	NE
	1,1-dichloroethane	ND	NA	ND	ND	NA	260	3,200	89,000
	1,2-dichloroethane	ND	ND	ND	ND	NA	NE	NE	NE
	1,1-dichloroethene	ND	ND	ND	ND	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	ND	ND	0.0052 J	ND	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	ND	ND	ND	ND	NA	23,000	7,100	200,000
	1,2-dichloropropane	ND	ND	ND	ND	NA	NE	NE	NE
	1,1-dichloropropene	ND	ND	ND	ND	NA	NE	NE	NE
	1,3-dichloropropane	ND	ND	ND	ND	NA	NE	NE	NE
	Cis-1,3-dichloropropene	ND	ND	ND	ND	NA	NE	NE	NE
	Trans-1,3-dichloropropene	ND	ND	ND	ND	NA	NE	NE	NE
	2,2-dichloropropane	ND	ND	ND	ND	NA	NE	NE	NE
	Di-isopropyl ether	ND	ND	ND	ND	NA	NE	NE	NE
	Ethylbenzene	ND	ND	ND	ND	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	ND	ND	ND	ND	NA	NE	NE	NE
	Isopropylbenzene	0.00767 J	ND	ND	ND	NA	57,000	27,000	750,000
	P-isopropyltoluene	0.0308	ND	ND	ND	NA	NE	NE	NE
	2-butanone (Mek)	ND	ND	ND	ND	NA	NE	NE	NE
	Methylene chloride	ND	ND	ND	ND	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	ND	ND	ND	ND	NA	NE	NE	NE
	Methyl tert-butyl ether	ND	ND	ND	ND	NA	1,100	12,000	320,000
	Naphthalene	0.0935 J	ND	ND	ND	NA	23	580	16,000
	N-propylbenzene	0.0264 J	ND	ND	ND	NA	NE	NE	NE
	Styrene	ND	ND	ND	ND	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	ND	ND	ND	ND	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	ND	ND	ND	ND	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	ND	ND	ND	ND	NA	NE	NE	NE
	Tetrachloroethene	ND	ND	ND	ND	NA	1,000	1,800	50,000
	Toluene	ND	ND	ND	ND	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	ND	ND	ND	ND	NA	NE	NE	NE
	1,2,4-trichlorobenzene	ND	ND	ND	ND	NA	NE	NE	NE

Table 3: SUMMARY OF MINERAL SPIRITS AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)							
		Mineral Spirits Area Soil Samples					DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		MS-131-9	MS-131-21	MS-132-9	MS-133-9	MS-185-4	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	ND	ND	ND	ND	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	ND	ND	ND	ND	NA	26	54	1,500
	Trichloroethene	ND	ND	ND	ND	NA	51	130	3,700
	Trichlorofluoromethane	ND	ND	ND	ND	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	ND	ND	ND	ND	NA	NE	NE	NE
	1,2,4-trimethylbenzene	ND	ND	ND	0.00101 J	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	ND	ND	ND	0.00045 J	NA	NE	NE	NE
	1,3,5-trimethylbenzene	ND	ND	ND	ND	NA	6,900	6,900	81,000
	Vinyl chloride	ND	ND	ND	ND	NA	4.4	34	950
	Xylenes, total	ND	ND	ND	ND	NA	25,000	20,000	560,000
PAHs	Anthracene	0.00333 J	ND	ND	ND	0.0148	350,000	110,000	>Max
	Acenaphthene	ND	0.0012 J	ND	ND	ND	70,000	21,000	590,000
	Acenaphthylene	ND	ND	ND	ND	ND	NE	NE	NE
	Benzo(a)anthracene	0.0022 J	ND	ND	ND	ND	21	170	4,800
	Benzo(a)pyrene	0.00265 J	ND	ND	ND	ND	2.1	17	490
	Benzo(b)fluoranthene	0.00275 J	ND	ND	ND	ND	21	170	4,900
	Benzo(g,h,i)perylene	0.00566 J	ND	ND	ND	ND	NE	NE	NE
	Benzo(k)fluoranthene	0.00086 J	ND	ND	ND	ND	210	1,700	49,000
	Chrysene	0.00204 J	ND	ND	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	0.00857	ND	ND	ND	0.00701	30,000	10,000	280,000
	Fluorene	0.0415	ND	ND	ND	0.0562	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	0.00416 J	ND	ND	ND	ND	21	170	4,900
	Naphthalene	0.319	ND	ND	ND	ND	23	580	16,000
	Phenanthrene	0.0235	ND	ND	ND	0.0702	NE	NE	NE
	Pyrene	0.0103	ND	ND	ND	0.00719	23,000	7,500	210,000
	1-methylnaphthalene	0.492	ND	ND	ND	ND	NE	NE	NE
	2-methylnaphthalene	0.459	ND	ND	ND	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	ND	NE	NE	NE
	Total PCBs	NA	NA	NA	NA	NA	0.59	4.9	140
	Diesel-Range Organics	1,150	ND	NA	NA	ND	14,000	4,600	>Max
	Residual-Range Organics	69.6	ND	NA	NA	4.59	14,000	4,600	>Max
	Gasoline-Range Organics	NA	NA	NA	NA	NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 4: SUMMARY OF MINERAL SPIRITS GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)			
		Mineral Spirits Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		MS-131-W	MS-134-W	MS-136-W	Construction & Excavation Worker
Metals	Antimony	0.000804 J	NA	NA	NE
	Arsenic	0.0164	NA	NA	6.3
	Beryllium	ND	NA	NA	270
	Cadmium	ND	NA	NA	130
	Chromium	0.00933 J	NA	NA	9.4
	Copper	0.0104	NA	NA	5,400
	Lead	0.00218 B	NA	NA	>S
	Nickel	0.00505 J	NA	NA	>S
	Selenium	ND	NA	NA	NE
	Silver	ND	NA	NA	1,100
	Thallium	0.00218	NA	NA	NE
	Zinc	0.0422 J	NA	NA	NE
	Mercury	0.0000823 B J	NA	NA	>S
VOCs	Acetone	ND J3	ND J3	NA	NE
	Acrolein	ND	ND	NA	NE
	Acrylonitrile	ND	ND	NA	0.25
	Benzene	ND	ND	NA	1.8
	Bromobenzene	ND	ND	NA	NE
	Bromodichloromethane	ND	ND	NA	0.45
	Bromoform	ND	ND	NA	14
	Bromomethane	ND	ND	NA	1.2
	N-butylbenzene	0.00359	ND	NA	NE
	Sec-butylbenzene	0.00294	ND	NA	NE
	Tert-Butylbenzene	0.000693 J	ND	NA	NE
	Carbon tetrachloride	ND	ND	NA	1.8
	Chlorobenzene	ND	ND	NA	10
	Chlorodibromomethane	ND	ND	NA	0.61
	Chloroethane	ND	ND	NA	2,400
	Chloroform	ND	ND	NA	0.72
	Chloromethane	ND	ND	NA	22
	2-Chlorotoluene	ND	ND	NA	NE
	4-Chlorotoluene	ND	ND	NA	NE
	1,2-dibromo-3-chloropropane	ND	ND	NA	NE
	1,2-dibromoethane	ND	ND	NA	NE
	Dibromomethane	ND	ND	NA	NE
	1,2-dichlorobenzene	ND	ND	NA	37
	1,3-dichlorobenzene	ND	ND	NA	NE
	1,4-dichlorobenzene	ND	ND	NA	1.5
	Dichlorodifluoromethane	ND	ND	NA	NE
	1,1-dichloroethane	ND	ND	NA	10
	1,2-dichloroethane	ND	ND	NA	NE
	1,1-dichloroethene	ND	ND	NA	44
	Cis-1,2-dichloroethene	ND	ND	NA	18
	Trans-1,2-dichloroethene	ND	ND	NA	180
	1,2-dichloropropane	ND	ND	NA	NE
	1,1-dichloropropene	ND	ND	NA	NE
	1,3-dichloropropane	ND	ND	NA	NE
	Cis-1,3-dichloropropene	ND	ND	NA	NE
	Trans-1,3-dichloropropene	ND	ND	NA	NE
	2,2-dichloropropane	ND	ND	NA	NE
	Di-isopropyl ether	ND	ND	NA	NE
	Ethylbenzene	0.000498 J	ND	NA	4.5
	Hexachloro-1,3-butadiene	ND	ND	NA	NE
	Isopropylbenzene	0.00112	ND	NA	51
	P-isopropyltoluene	0.00331	ND	NA	NE
	2-butanone (Mek)	ND	ND	NA	NE
	Methylene chloride	ND	ND	NA	NE
	4-methyl-2-pentanone (Mibk)	ND	ND	NA	NE
	Methyl tert-butyl ether	ND	ND	NA	63
	Naphthalene	0.00707	ND	NA	0.5
	N-propylbenzene	0.00291	ND	NA	NE
	Styrene	ND	ND	NA	170
	1,1,1,2-tetrachloroethane	ND	ND	NA	NE
	1,1,2,2-tetrachloroethane	ND	ND	NA	NE
	1,1,2-trichlorotrifluoroethane	ND	ND	NA	>S
	Tetrachloroethene	ND	ND	NA	6
	Toluene	0.00149	ND	NA	220
	1,2,3-trichlorobenzene	ND	ND	NA	NE

Table 4: SUMMARY OF MINERAL SPIRITS GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)			
		Mineral Spirits Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		MS-131-W	MS-134-W	MS-136-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	ND	NA	NE
	1,1,1-trichloroethane	ND	ND	NA	1,100
	1,1,2-trichloroethane	ND	ND	NA	0.049
	Trichloroethene	ND	ND	NA	0.43
	Trichlorofluoromethane	ND	ND	NA	160
	1,2,3-trichloropropane	ND	ND	NA	NE
	1,2,4-trimethylbenzene	0.000662 J	0.000408 J	NA	6
	1,2,3-trimethylbenzene	0.000515 J	ND	NA	NE
	1,3,5-trimethylbenzene	ND	ND	NA	8
	Vinyl chloride	ND	ND	NA	0.96
	Xylenes, total	0.0021 J	ND	NA	23
PAHs	Anthracene	ND	ND	ND	>S
	Acenaphthene	ND	ND	ND	>S
	Acenaphthylene	ND	ND	ND	NE
	Benzo(a)anthracene	0.0000416 J	ND	ND	>S
	Benzo(a)pyrene	0.0000987	ND	ND	>S
	Benzo(b)fluoranthene	0.0000842	ND	ND	>S
	Benzo(g,h,i)perylene	0.000197 J3	ND J3	00000251 B J	NE
	Benzo(k)fluoranthene	0.000022 J	ND	ND	>S
	Chrysene	0.0000313 J	ND	ND	>S
	Dibenz(a,h)anthracene	ND J3	ND J3	ND J3	>S
	Fluoranthene	0.000118	ND	ND	>S
	Fluorene	ND	ND	ND	>S
	Indeno(1,2,3-cd)pyrene	0.00016 J3	ND J3	ND J3	>S
	Naphthalene	0.00054	0.0000211 J	0.0000268 J	0.5
	Phenanthrene	ND	ND	ND	NE
	Pyrene	0.000189	ND	ND	>S
	1-methylnaphthalene	ND	ND	ND	NE
	2-methylnaphthalene	ND	ND	ND	NE
	2-chloronaphthalene	ND	ND	ND	NE
	Diesel-Range Organics	15	NA	NA	>S
	Residual-Range Organics	2.21	NA	NA	>S
	Gasoline-Range Organics	0.38 B	NA	NA	14

Notes:

ND: Not detected at concentration greater than method detection limit.
NA: Compound not analyzed for this sample.
B: The same analyte is found in the associated blank.
J: The identification of the analyte is acceptable; the reported value is an estimate.
J3: The associated batch QC was outside the established quality control range for precision.
J4: The associated batch QC was outside the established quality control range for accuracy
NE: Value not established.
T8: Sample(s) received past/too close to holding time expiration.
>S: The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold: Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.

Table 5: SUMMARY OF TRUCK SCALES AND CARPENTER SHOP AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)						
		Truck Scales and Carpenter Shop Area Soil Samples				DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		TS-192-8	TS-193-15*	TS-195-11	CS-198-9	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	NA	NA	NE	NE	NE
	Arsenic	NA	NA	NA	NA	1.9	15	420
	Beryllium	NA	NA	NA	NA	2,300	700	19,000
	Cadmium	NA	NA	NA	NA	1,100	350	9,700
	Chromium	NA	NA	NA	NA	6.3	49	1400
	Copper	NA	NA	NA	NA	47,000	14,000	390,000
	Lead	NA	NA	NA	NA	800	800	800
	Nickel	NA	NA	NA	NA	22,000	7,000	190,000
	Selenium	NA	NA	NA	NA	NE	NE	NE
	Silver	NA	NA	NA	NA	5,800	1,800	49,000
	Thallium	NA	NA	NA	NA	NE	NE	NE
	Zinc	NA	NA	NA	NA	NE	NE	NE
	Mercury	NA	NA	NA	NA	350	110	2,900
VOCs	Acetone	NA	NA	NA	NA	NE	NE	NE
	Acrylonitrile	NA	NA	NA	NA	4	40	1,100
	Benzene	NA	NA	NA	NA	37	380	11,000
	Bromobenzene	NA	NA	NA	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	NA	NA	15	230	6,300
	Bromoform	NA	NA	NA	NA	260	2,700	74,000
	Bromomethane	NA	NA	NA	NA	750	370	10,000
	N-butylbenzene	NA	NA	NA	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	NA	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	NA	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	NA	NA	34	320	8,900
	Chlorobenzene	NA	NA	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	NA	NA	17	210	5,800
	Chloroethane	NA	NA	NA	NA	NE	NE	NE
	Chloroform	NA	NA	NA	NA	26	410	11,000
	Chloromethane	NA	NA	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	NA	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	NA	NA	0.73	9	250
	Dibromomethane	NA	NA	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethane	NA	NA	NA	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	NA	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	NA	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	NA	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	NA	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	NA	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	NA	NA	NE	NE	NE
	Ethylbenzene	NA	NA	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	NA	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	NA	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	NA	NA	NE	NE	NE
	Methylene chloride	NA	NA	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	NA	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	NA	NA	23	580	16,000
	N-propylbenzene	NA	NA	NA	NA	NE	NE	NE
	Styrene	NA	NA	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	NA	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	NA	NA	1,000	1,800	50,000
	Toluene	NA	NA	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	NA	NA	NE	NE	NE

Table 5: SUMMARY OF TRUCK SCALES AND CARPENTER SHOP AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)						
		Truck Scales and Carpenter Shop Area Soil Samples				DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		TS-192-8	TS-193-15*	TS-195-11	CS-198-9	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	NA	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	NA	NA	26	54	1,500
	Trichloroethene	NA	NA	NA	NA	51	130	3,700
	Trichlorofluoromethane	NA	NA	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	NA	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	NA	NA	6,900	6,900	81,000
	Vinyl chloride	NA	NA	NA	NA	4.4	34	950
	Xylenes, total	NA	NA	NA	NA	25,000	20,000	560,000
PAHs	Anthracene	0.00227 J	ND	ND	ND	350,000	110,000	>Max
	Acenaphthene	0.00338 J	ND	ND	ND	70,000	21,000	590,000
	Acenaphthylene	ND	ND	ND	ND	NE	NE	NE
	Benzo(a)anthracene	ND	ND	ND	ND	21	170	4,800
	Benzo(a)pyrene	ND	ND	ND	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	ND	ND	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	ND	ND	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	ND	ND	ND	210	1,700	49,000
	Chrysene	ND	ND	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	ND	ND	ND	ND	30,000	10,000	280,000
	Fluorene	0.00522 J	ND	ND	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	21	170	4,900
	Naphthalene	0.00295 J	ND	0.00317 J	ND	23	580	16,000
	Phenanthrene	0.0154	ND	0.00148 J	ND	NE	NE	NE
	Pyrene	0.0012 J	ND	ND	ND	23,000	7,500	210,000
	1-methylnaphthalene	0.0205 J	ND	ND	ND	NE	NE	NE
	2-methylnaphthalene	0.0216 J	ND	ND	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	NE	NE	NE
Total PCBs		NA	NA	NA	NA	0.59	4.9	140
Diesel-Range Organics		13.2	ND	ND	ND	14,000	4,600	>Max
Residual-Range Organics		ND	ND	ND	ND	14,000	4,600	>Max
Gasoline-Range Organics		NA	NA	NA	NA	20,000	9,700	>Max

Notes:

ND:	Not detected at concentration greater than method detection limit.
NA:	NA: Compound not analyzed for this sample.
J:	The identification of the analyte is acceptable; the reported value is an estimate.
J3:	The associated batch QC was outside the established quality control range for precision.
V3:	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.
NE:	Value not established.
>Max:	The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.
Bold:	Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.
*	Sample incorrectly submitted to lab as "TS-192-15"

Table 6: SUMMARY OF TRUCK SCALES GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/l)			
		Truck Scales Groundwater Samples		Carpenter Shop Groundwater Sample	DEQ RBCs for Groundwater in Excavation
		TS-195-W	TS-204-W	CS-198-W	Construction & Excavation Worker
Metals	Antimony	ND	ND	ND	NE
	Arsenic	0.013	0.0745	0.0218	6.3
	Beryllium	ND	ND	ND	270
	Cadmium	0.00106 J	ND	ND	130
	Chromium	0.0479	0.12	0.00325 J	9.4
	Copper	0.0565	0.0414	ND	5,400
	Lead	0.0106	0.00386	0.000403 J	>S
	Nickel	0.0241	0.0213	ND	>S
	Selenium	ND	ND	ND	NE
	Silver	ND	ND	ND	1,100
	Thallium	ND	ND	ND	ND
	Zinc	0.101	0.034 J	ND	NE
	Mercury	0.000128 J	ND	0.0000542 J	>S
VOCs	Acetone	ND	ND	NA	NE
	Acrolein	ND	ND	NA	NE
	Acrylonitrile	ND J4	ND J4	NA	0.25
	Benzene	ND	ND	NA	1.8
	Bromobenzene	ND	ND	NA	NE
	Bromodichloromethane	ND	ND	NA	0.45
	Bromoform	ND	ND	NA	14
	Bromomethane	ND	ND	NA	1.2
	N-butylbenzene	ND	ND	NA	NE
	Sec-butylbenzene	ND	ND	NA	NE
	Tert-Butylbenzene	ND	ND	NA	NE
	Carbon tetrachloride	ND	ND	NA	1.8
	Chlorobenzene	ND	ND	NA	10
	Chlorodibromomethane	ND	ND	NA	0.61
	Chloroethane	ND	ND	NA	2,400
	Chloroform	ND	ND	NA	0.72
	Chloromethane	ND	ND	NA	22
	2-Chlorotoluene	ND	ND	NA	NE
	4-Chlorotoluene	ND	ND	NA	NE
	1,2-dibromo-3-chloropropane	ND	ND	NA	NE
	1,2-dibromoethane	ND	ND	NA	NE
	Dibromomethane	ND	ND	NA	NE
	1,2-dichlorobenzene	ND	ND	NA	37
	1,3-dichlorobenzene	ND	ND	NA	NE
	1,4-dichlorobenzene	ND	ND	NA	1.5
	Dichlorodifluoromethane	ND	ND	NA	NE
	1,1-dichloroethane	ND	ND	NA	10
	1,2-dichloroethane	ND	ND	NA	NE
	1,1-dichloroethene	ND	ND	NA	44
	Cis-1,2-dichloroethene	ND	ND	NA	18
	Trans-1,2-dichloroethene	ND	ND	NA	180
	1,2-dichloropropane	ND	ND	NA	NE
	1,1-dichloropropene	ND	ND	NA	NE
	1,3-dichloropropane	ND	ND	NA	NE
	Cis-1,3-dichloropropene	ND	ND	NA	NE
	Trans-1,3-dichloropropene	ND	ND	NA	NE
	2,2-dichloropropane	ND	ND	NA	NE
	Di-isopropyl ether	ND	ND	NA	NE
	Ethylbenzene	ND	ND	NA	4.5
	Hexachloro-1,3-butadiene	ND	ND	NA	NE
	Isopropylbenzene	ND	ND	NA	51
	P-isopropyltoluene	ND	ND	NA	NE
	2-butanone (Mek)	ND	ND	NA	NE
	Methylene chloride	ND	ND	NA	NE
	4-methyl-2-pentanone (Mibk)	ND	ND	NA	NE
	Methyl tert-butyl ether	ND	ND	NA	63
	Naphthalene	ND	ND	NA	0.5
	N-propylbenzene	ND	ND	NA	NE
	Styrene	ND	ND	NA	170
	1,1,1,2-tetrachloroethane	ND	ND	NA	NE
	1,1,2,2-tetrachloroethane	ND	ND	NA	NE
	1,1,2-trichlorotrifluoroethane	ND	ND	NA	>S
	Tetrachloroethene	ND	ND	NA	6
	Toluene	0.000866 J	ND	NA	220
	1,2,3-trichlorobenzene	ND	ND	NA	NE

Table 6: SUMMARY OF TRUCK SCALES GROUNDWATER CHEMICAL DATA

Compound		Concentration (mg/l)			
		Truck Scales Groundwater Samples		Carpenter Shop Groundwater Sample	DEQ RBCs for Groundwater in Excavation
		TS-195-W	TS-204-W	CS-198-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	ND	NA	NE
	1,1,1-trichloroethane	ND	ND	NA	1,100
	1,1,2-trichloroethane	ND	ND	NA	0.049
	Trichloroethene	ND	ND	NA	0.43
	Trichlorofluoromethane	ND	ND	NA	160
	1,2,3-trichloropropane	ND	ND	NA	NE
	1,2,4-trimethylbenzene	ND	ND	NA	6
	1,2,3-trimethylbenzene	ND	ND	NA	NE
	1,3,5-trimethylbenzene	ND	ND	NA	8
	Vinyl chloride	ND	ND	NA	0.96
	Xylenes, total	ND	ND	NA	23
PAHs	Anthracene	ND	ND	ND	>S
	Acenaphthene	0.000079 J	ND	ND	>S
	Acenaphthylene	ND	ND	ND	NE
	Benzo(a)anthracene	ND	ND	ND	>S
	Benzo(a)pyrene	ND	ND	ND	>S
	Benzo(b)fluoranthene	ND	ND	ND	>S
	Benzo(g,h,i)perylene	0.0000329 B J	ND	0.00000339 B J	NE
	Benzo(k)fluoranthene	ND	ND	ND	>S
	Chrysene	ND	ND	ND	>S
	Dibenz(a,h)anthracene	ND	ND	ND	>S
	Fluoranthene	ND	ND	ND	>S
	Fluorene	0.000156 J	ND	ND	>S
	Indeno(1,2,3-cd)pyrene	ND	ND	ND	>S
	Naphthalene	0.000303 B J	0.0000744 B J	0.0000473 B J	0.5
	Phenanthrene	ND	ND	ND	NE
	Pyrene	ND	ND	ND	>S
	1-methylnaphthalene	0.000353 J	ND	ND	NE
	2-methylnaphthalene	0.000218 J	ND	ND	NE
	2-chloronaphthalene	ND	ND	ND	NE
Diesel-Range Organics		0.601	0.183	0.327	>S
Residual-Range Organics		0.855	0.288	0.459	>S
Gasoline-Range Organics		ND	ND	NA	14

Notes:

ND:	Not detected at concentration greater than method detection limit.
NA:	Compound not analyzed for this sample.
B:	The same analyte is found in the associated blank.
J:	The identification of the analyte is acceptable; the reported value is an estimate.
J3:	The associated batch QC was outside the established quality control range for precision.
J4:	The associated batch QC was outside the established quality control range for accuracy
NE:	Value not established.
T8:	Sample(s) received past/too close to holding time expiration.
>S:	The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold:	Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.

Table 7: SUMMARY OF CHIP TRUCK HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)									
		Chip Truck Hydraulic Lift Area Soil Samples							DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		CT-142-11	CT-145-16	CT-145-7	CT-146-13	CT-149-13	CT-149-29	CT-150-13	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Arsenic	NA	NA	NA	NA	NA	NA	NA	1.9	15	420
	Beryllium	NA	NA	NA	NA	NA	NA	NA	2,300	700	19,000
	Cadmium	NA	NA	NA	NA	NA	NA	NA	1,100	350	9,700
	Chromium	NA	NA	NA	NA	NA	NA	NA	6.3	49	1400
	Copper	NA	NA	NA	NA	NA	NA	NA	47,000	14,000	390,000
	Lead	NA	NA	NA	NA	NA	NA	NA	800	800	800
	Nickel	NA	NA	NA	NA	NA	NA	NA	22,000	7,000	190,000
	Selenium	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Silver	NA	NA	NA	NA	NA	NA	NA	5,800	1,800	49,000
	Thallium	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Zinc	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Mercury	NA	NA	NA	NA	NA	NA	NA	350	110	2,900
VOCs	Acetone	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	4	40	1,100
	Benzene	NA	NA	NA	NA	NA	NA	NA	37	380	11,000
	Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	15	230	6,300
	Bromoform	NA	NA	NA	NA	NA	NA	NA	260	2,700	74,000
	Bromomethane	NA	NA	NA	NA	NA	NA	NA	750	370	10,000
	N-butylbenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	34	320	8,900
	Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	NA	NA	NA	NA	NA	17	210	5,800
	Chloroethane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Chloroform	NA	NA	NA	NA	NA	NA	NA	26	410	11,000
	Chloromethane	NA	NA	NA	NA	NA	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	NA	NA	NA	NA	NA	0.73	9	250
	Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethane	NA	NA	NA	NA	NA	NA	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	NA	NA	NA	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	NA	NA	NA	NA	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	NA	NA	NA	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	NA	NA	NA	NA	NA	23	580	16,000
	N-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Styrene	NA	NA	NA	NA	NA	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	1,000	1,800	50,000
	Toluene	NA	NA	NA	NA	NA	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE

Table 7: SUMMARY OF CHIP TRUCK HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)									
		Chip Truck Hydraulic Lift Area Soil Samples							DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		CT-142-11	CT-145-16	CT-145-7	CT-146-13	CT-149-13	CT-149-29	CT-150-13	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	NA	NA	NA	NA	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	NA	NA	NA	NA	NA	26	54	1,500
	Trichloroethene	NA	NA	NA	NA	NA	NA	NA	51	130	3,700
	Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	6,900	6,900	81,000
	Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	4.4	34	950
	Xylenes, total	NA	NA	NA	NA	NA	NA	NA	25,000	20,000	560,000
PAHs	Anthracene	ND	ND	0.151	ND	ND	ND	ND	350,000	110,000	>Max
	Acenaphthene	0.00819	ND	0.0688 J	ND	0.00107 J	ND	ND	70,000	21,000	590,000
	Acenaphthylene	ND	ND	0.0153 J	ND	ND	ND	ND	NE	NE	NE
	Benzo(a)anthracene	0.00112 J	ND	0.0249 J	ND	ND	ND	ND	21	170	4,800
	Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	ND	0.0734	ND	ND	ND	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	ND	0.00958 J	ND	ND	ND	ND	210	1,700	49,000
	Chrysene	0.00167 J	ND	0.0114 J	ND	ND	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	0.0047 J	ND	0.0166 J	ND	ND	ND	ND	30,000	10,000	280,000
	Fluorene	0.0625	ND	0.0882	ND	ND	ND	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	21	170	4,900
	Naphthalene	ND	ND	ND	ND	0.0026 J	ND	ND	23	580	16,000
	Phenanthrene	ND	ND	0.053 J	ND	ND	ND	ND	NE	NE	NE
	Pyrene	0.0133	ND	0.097	ND	ND	ND	ND	23,000	7,500	210,000
	1-methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	2-methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Total PCBs	NA	NA	NA	NA	NA	NA	NA	0.59	4.9	140
	Diesel-Range Organics	75	2.16 J	1,030	NA	NA	NA	NA	14,000	4,600	>Max
	Residual-Range Organics	440	8.14 J	**6,190**	NA	NA	NA	NA	14,000	4,600	>Max
	Gasoline-Range Organics	NA	NA	NA	NA	NA	NA	NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 8: SUMMARY OF CHIP TRUCK GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/l)				
		Chip Truck Groundwater Samples				DEQ RBCs for Groundwater in Excavation
		CT-142-W	CT-144-W	CT-151-W	CT-153-W	Construction & Excavation Worker
Metals	Antimony	NA	NA	NA	NA	NE
	Arsenic	NA	NA	NA	NA	6.3
	Beryllium	NA	NA	NA	NA	270
	Cadmium	NA	NA	NA	NA	130
	Chromium	NA	NA	NA	NA	9.4
	Copper	NA	NA	NA	NA	5,400
	Lead	NA	NA	NA	NA	>S
	Nickel	NA	NA	NA	NA	>S
	Selenium	NA	NA	NA	NA	NE
	Silver	NA	NA	NA	NA	1,100
	Thallium	NA	NA	NA	NA	NE
	Zinc	NA	NA	NA	NA	NE
	Mercury	NA	NA	NA	NA	>S
VOCs	Acetone	NA	NA	NA	NA	NE
	Acrolein	NA	NA	NA	NA	NE
	Acrylonitrile	NA	NA	NA	NA	0.25
	Benzene	NA	NA	NA	NA	1.8
	Bromobenzene	NA	NA	NA	NA	NE
	Bromodichloromethane	NA	NA	NA	NA	0.45
	Bromoform	NA	NA	NA	NA	14
	Bromomethane	NA	NA	NA	NA	1.2
	N-butylbenzene	NA	NA	NA	NA	NE
	Sec-butylbenzene	NA	NA	NA	NA	NE
	Tert-Butylbenzene	NA	NA	NA	NA	NE
	Carbon tetrachloride	NA	NA	NA	NA	1.8
	Chlorobenzene	NA	NA	NA	NA	10
	Chlorodibromomethane	NA	NA	NA	NA	0.61
	Chloroethane	NA	NA	NA	NA	2,400
	Chloroform	NA	NA	NA	NA	0.72
	Chloromethane	NA	NA	NA	NA	22
	2-Chlorotoluene	NA	NA	NA	NA	NE
	4-Chlorotoluene	NA	NA	NA	NA	NE
	1,2-dibromo-3-chloropropane	NA	NA	NA	NA	NE
	1,2-dibromoethane	NA	NA	NA	NA	NE
	Dibromomethane	NA	NA	NA	NA	NE
	1,2-dichlorobenzene	NA	NA	NA	NA	37
	1,3-dichlorobenzene	NA	NA	NA	NA	NE
	1,4-dichlorobenzene	NA	NA	NA	NA	1.5
	Dichlorodifluoromethane	NA	NA	NA	NA	NE
	1,1-dichloroethane	NA	NA	NA	NA	10
	1,2-dichloroethane	NA	NA	NA	NA	NE
	1,1-dichloroethene	NA	NA	NA	NA	44
	Cis-1,2-dichloroethene	NA	NA	NA	NA	18
	Trans-1,2-dichloroethene	NA	NA	NA	NA	180
	1,2-dichloropropane	NA	NA	NA	NA	NE
	1,1-dichloropropene	NA	NA	NA	NA	NE
	1,3-dichloropropane	NA	NA	NA	NA	NE
	Cis-1,3-dichloropropene	NA	NA	NA	NA	NE
	Trans-1,3-dichloropropene	NA	NA	NA	NA	NE
	2,2-dichloropropane	NA	NA	NA	NA	NE
	Di-isopropyl ether	NA	NA	NA	NA	NE
	Ethylbenzene	NA	NA	NA	NA	4.5
	Hexachloro-1,3-butadiene	NA	NA	NA	NA	NE
	Isopropylbenzene	NA	NA	NA	NA	51
	P-isopropyltoluene	NA	NA	NA	NA	NE
	2-butanone (Mek)	NA	NA	NA	NA	NE
	Methylene chloride	NA	NA	NA	NA	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	NA	NA	NE
	Methyl tert-butyl ether	NA	NA	NA	NA	63
	Naphthalene	NA	NA	NA	NA	0.5
	N-propylbenzene	NA	NA	NA	NA	NE
	Styrene	NA	NA	NA	NA	170
	1,1,1,2-tetrachloroethane	NA	NA	NA	NA	NE
	1,1,2,2-tetrachloroethane	NA	NA	NA	NA	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	NA	NA	>S
	Tetrachloroethene	NA	NA	NA	NA	6
	Toluene	NA	NA	NA	NA	220
	1,2,3-trichlorobenzene	NA	NA	NA	NA	NE

Table 8: SUMMARY OF CHIP TRUCK GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/l)				
		Chip Truck Groundwater Samples				DEQ RBCs for Groundwater in Excavation
		CT-142-W	CT-144-W	CT-151-W	CT-153-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	NA	NA	NA	NA	NE
	1,1,1-trichloroethane	NA	NA	NA	NA	1,100
	1,1,2-trichloroethane	NA	NA	NA	NA	0.049
	Trichloroethene	NA	NA	NA	NA	0.43
	Trichlorofluoromethane	NA	NA	NA	NA	160
	1,2,3-trichloropropane	NA	NA	NA	NA	NE
	1,2,4-trimethylbenzene	NA	NA	NA	NA	6
	1,2,3-trimethylbenzene	NA	NA	NA	NA	NE
	1,3,5-trimethylbenzene	NA	NA	NA	NA	8
	Vinyl chloride	NA	NA	NA	NA	0.96
	Xylenes, total	NA	NA	NA	NA	23
PAHs	Anthracene	0.000186	ND	ND	ND	>S
	Acenaphthene	0.000232	0.0000384 J	ND	0.0000119 J	>S
	Acenaphthylene	ND	ND	ND	ND	NE
	Benzo(a)anthracene	ND	ND	ND	ND	>S
	Benzo(a)pyrene	ND	ND	ND	ND	>S
	Benzo(b)fluoranthene	ND	ND	ND	ND	>S
	Benzo(g,h,i)perylene	ND J3	0.00000854 B J J3	0.00000231 B J J3	0.00000401 B J J3	NE
	Benzo(k)fluoranthene	ND	ND	ND	ND	>S
	Chrysene	ND	ND	ND	ND	>S
	Dibenz(a,h)anthracene	ND J3	ND J3	ND J3	ND J3	>S
	Fluoranthene	0.0000225 J	ND	ND	ND	>S
	Fluorene	0.00158	0.000128	ND	0.000012 J	>S
	Indeno(1,2,3-cd)pyrene	ND J3	ND J3	ND J3	ND J3	>S
	Naphthalene	0.0000434	ND	0.0000241 J	0.0000229 J	0.5
	Phenanthrene	ND	ND	0.00000854 J	0.00000963 J	NE
	Pyrene	0.0000495 J	0.0000136 J	ND	ND	>S
	1-methylnaphthalene	0.0000196 J	ND	ND	ND	NE
	2-methylnaphthalene	0.0000185 J	ND	ND	ND	NE
	2-chloronaphthalene	ND	ND	ND	ND	NE
Diesel-Range Organics		1.32	NA	NA	NA	>S
Residual-Range Organics		1.98	NA	NA	NA	>S
Gasoline-Range Organics		NA	NA	NA	NA	14

Notes:

ND:	Not detected at concentration greater than method detection limit.
NA:	Compound not analyzed for this sample.
B:	The same analyte is found in the associated blank.
J:	The identification of the analyte is acceptable; the reported value is an estimate.
J3:	The associated batch QC was outside the established quality control range for precision.
J4:	The associated batch QC was outside the established quality control range for accuracy
NE:	Value not established.
T8:	Sample(s) received past/too close to holding time expiration.
>S:	The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold:	Value exceeds the RBC for groundwater in excavation for the construction and excavation worker receptor scenari

Table 9: SUMMARY OF HOG FUEL HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)			
		Hog Fuel Hydraulic Lift	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		HF-137-16	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NE	NE	NE
	Arsenic	NA	1.9	15	420
	Beryllium	NA	2,300	700	19,000
	Cadmium	NA	1,100	350	9,700
	Chromium	NA	6.3	49	1400
	Copper	NA	47,000	14,000	390,000
	Lead	NA	800	800	800
	Nickel	NA	22,000	7,000	190,000
	Selenium	NA	NE	NE	NE
	Silver	NA	5,800	1,800	49,000
	Thallium	NA	NE	NE	NE
	Zinc	NA	NE	NE	NE
	Mercury	NA	350	110	2,900
VOCs	Acetone	NA	NE	NE	NE
	Acrylonitrile	NA	4	40	1,100
	Benzene	NA	37	380	11,000
	Bromobenzene	NA	NE	NE	NE
	Bromodichloromethane	NA	15	230	6,300
	Bromoform	NA	260	2,700	74,000
	Bromomethane	NA	750	370	10,000
	N-butylbenzene	NA	NE	NE	NE
	Sec-butylbenzene	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NE	NE	NE
	Carbon tetrachloride	NA	34	320	8,900
	Chlorobenzene	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	17	210	5,800
	Chloroethane	NA	NE	NE	NE
	Chloroform	NA	26	410	11,000
	Chloromethane	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NE	NE	NE
	4-Chlorotoluene	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NE	NE	NE
	1,2-dibromoethane	NA	0.73	9	250
	Dibromomethane	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NE	NE	NE
	1,1-dichloroethane	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NE	NE	NE
	1,1-dichloroethene	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NE	NE	NE
	1,1-dichloropropene	NA	NE	NE	NE
	1,3-dichloropropane	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NE	NE	NE
	2,2-dichloropropane	NA	NE	NE	NE
	Di-isopropyl ether	NA	NE	NE	NE
	Ethylbenzene	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NE	NE	NE
	Isopropylbenzene	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NE	NE	NE
	2-butanone (Mek)	NA	NE	NE	NE
	Methylene chloride	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	1,100	12,000	320,000
	Naphthalene	NA	23	580	16,000
	N-propylbenzene	NA	NE	NE	NE
	Styrene	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NE	NE	NE
	Tetrachloroethene	NA	1,000	1,800	50,000
	Toluene	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NE	NE	NE

Table 9: SUMMARY OF HOG FUEL HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)			
		Hog Fuel Hydraulic Lift	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		HF-137-16	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	26	54	1,500
	Trichloroethene	NA	51	130	3,700
	Trichlorofluoromethane	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	6,900	6,900	81,000
	Vinyl chloride	NA	4.4	34	950
	Xylenes, total	NA	25,000	20,000	560,000
PAHs	Anthracene	ND	350,000	110,000	>Max
	Acenaphthene	ND	70,000	21,000	590,000
	Acenaphthylene	ND	NE	NE	NE
	Benzo(a)anthracene	ND	21	170	4,800
	Benzo(a)pyrene	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	210	1,700	49,000
	Chrysene	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	2.1	17	490
	Fluoranthene	ND	30,000	10,000	280,000
	Fluorene	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	21	170	4,900
	Naphthalene	ND	23	580	16,000
	Phenanthrene	0.000756 J	NE	NE	NE
	Pyrene	ND	23,000	7,500	210,000
	1-methylnaphthalene	ND	NE	NE	NE
	2-methylnaphthalene	ND	NE	NE	NE
	2-chloronaphthalene	ND	NE	NE	NE
	Total PCBs	NA	0.59	4.9	140
	Diesel-Range Organics	ND	14,000	4,600	>Max
	Residual-Range Organics	ND	14,000	4,600	>Max
	Gasoline-Range Organics	NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is

J3: The associated batch QC was outside the established quality contrc

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor

Table 10: SUMMARY OF HOG FUEL GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)	
		Hog Fuel Groundwater Samples	DEQ RBCs for Groundwater in Excavation
		HF-137-W	Construction & Excavation Worker
Metals	Antimony	NA	NE
	Arsenic	NA	6.3
	Beryllium	NA	270
	Cadmium	NA	130
	Chromium	NA	9.4
	Copper	NA	5,400
	Lead	NA	>S
	Nickel	NA	>S
	Selenium	NA	NE
	Silver	NA	1,100
	Thallium	NA	NE
	Zinc	NA	NE
	Mercury	NA	>S
VOCs	Acetone	NA	NE
	Acrolein	NA	NE
	Acrylonitrile	NA	0.25
	Benzene	NA	1.8
	Bromobenzene	NA	NE
	Bromodichloromethane	NA	0.45
	Bromoform	NA	14
	Bromomethane	NA	1.2
	N-butylbenzene	NA	NE
	Sec-butylbenzene	NA	NE
	Tert-Butylbenzene	NA	NE
	Carbon tetrachloride	NA	1.8
	Chlorobenzene	NA	10
	Chlorodibromomethane	NA	0.61
	Chloroethane	NA	2,400
	Chloroform	NA	0.72
	Chloromethane	NA	22
	2-Chlorotoluene	NA	NE
	4-Chlorotoluene	NA	NE
	1,2-dibromo-3-chloropropane	NA	NE
	1,2-dibromoethane	NA	NE
	Dibromomethane	NA	NE
	1,2-dichlorobenzene	NA	37
	1,3-dichlorobenzene	NA	NE
	1,4-dichlorobenzene	NA	1.5
	Dichlorodifluoromethane	NA	NE
	1,1-dichloroethane	NA	10
	1,2-dichloroethane	NA	NE
	1,1-dichloroethene	NA	44
	Cis-1,2-dichloroethene	NA	18
	Trans-1,2-dichloroethene	NA	180
	1,2-dichloropropane	NA	NE
	1,1-dichloropropene	NA	NE
	1,3-dichloropropane	NA	NE
	Cis-1,3-dichloropropene	NA	NE
	Trans-1,3-dichloropropene	NA	NE
	2,2-dichloropropane	NA	NE
	Di-isopropyl ether	NA	NE
	Ethylbenzene	NA	4.5
	Hexachloro-1,3-butadiene	NA	NE
	Isopropylbenzene	NA	51
	P-isopropyltoluene	NA	NE
	2-butanone (Mek)	NA	NE
	Methylene chloride	NA	NE
	4-methyl-2-pentanone (Mibk)	NA	NE
	Methyl tert-butyl ether	NA	63
	Naphthalene	NA	0.5
	N-propylbenzene	NA	NE
	Styrene	NA	170
	1,1,1,2-tetrachloroethane	NA	NE
	1,1,2,2-tetrachloroethane	NA	NE
	1,1,2-trichlorotrifluoroethane	NA	>S
	Tetrachloroethene	NA	6
	Toluene	NA	220
	1,2,3-trichlorobenzene	NA	NE

Table 10: SUMMARY OF HOG FUEL GROUNDWATER CHEMICAL DATA

Compound		Concentration (mg/L)	
		Hog Fuel Groundwater Samples	DEQ RBCs for Groundwater in Excavation
		HF-137-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	NA	NE
	1,1,1-trichloroethane	NA	1,100
	1,1,2-trichloroethane	NA	0.049
	Trichloroethene	NA	0.43
	Trichlorofluoromethane	NA	160
	1,2,3-trichloropropane	NA	NE
	1,2,4-trimethylbenzene	NA	6
	1,2,3-trimethylbenzene	NA	NE
	1,3,5-trimethylbenzene	NA	8
	Vinyl chloride	NA	0.96
	Xylenes, total	NA	23
PAHs	Anthracene	ND	>S
	Acenaphthene	ND	>S
	Acenaphthylene	ND	NE
	Benzo(a)anthracene	ND	>S
	Benzo(a)pyrene	ND	>S
	Benzo(b)fluoranthene	ND	>S
	Benzo(g,h,i)perylene	ND	NE
	Benzo(k)fluoranthene	ND	>S
	Chrysene	ND	>S
	Dibenz(a,h)anthracene	ND	>S
	Fluoranthene	ND	>S
	Fluorene	ND	>S
	Indeno(1,2,3-cd)pyrene	ND	>S
	Naphthalene	ND	0.5
	Phenanthrene	ND	NE
	Pyrene	ND	>S
	1-methylnaphthalene	ND	NE
	2-methylnaphthalene	ND	NE
	2-chloronaphthalene	ND	NE
Diesel-Range Organics		0.0964	>S
Residual-Range Organics		0.163	>S
Gasoline-Range Organics		NA	14

Notes:
ND: Not detected at concentration greater than method detection limit.
NA: Compound not analyzed for this sample.
B: The same analyte is found in the associated blank.
J: The identification of the analyte is acceptable; the reported value is an estimate.
J3: The associated batch QC was outside the established quality control range for precision.
J4: The associated batch QC was outside the established quality control range for accuracy
NE: Value not established.
T8: Sample(s) received past/too close to holding time expiration.
>S: The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold: Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor

Table 11: SUMMARY OF STREAM CHANNEL AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)				
		Stream Channel Area Soil Samples		DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		SC-205-1	SC-206-1	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	1.36 J	ND	NE	NE	NE
	Arsenic	**3.12**	**4.84**	1.9	15	420
	Beryllium	0.673	ND	2,300	700	19,000
	Cadmium	0.183 J	ND	1,100	350	9,700
	Chromium	**80.3**	**7.11**	6.3	49	1,400
	Copper	70.4	1.09 J	47,000	14,000	390,000
	Lead	7.07	1.66	800	800	800
	Nickel	306	5.04	22,000	7,000	190,000
	Selenium	ND	ND	NE	NE	NE
	Silver	ND	ND	5,800	1,800	49,000
	Thallium	ND	ND	NE	NE	NE
	Zinc	230	14.9	NE	NE	NE
	Mercury	0.0182 J	0.0072 J	350	110	2,900
VOCs	Acetone	NA	NA	NE	NE	NE
	Acrylonitrile	NA	NA	4	40	1,100
	Benzene	NA	NA	37	380	11,000
	Bromobenzene	NA	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	15	230	6,300
	Bromoform	NA	NA	260	2,700	74,000
	Bromomethane	NA	NA	750	370	10,000
	N-butylbenzene	NA	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	34	320	8,900
	Chlorobenzene	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	17	210	5,800
	Chloroethane	NA	NA	NE	NE	NE
	Chloroform	NA	NA	26	410	11,000
	Chloromethane	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	0.73	9	250
	Dibromomethane	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	NE	NE	NE
	1,1-dichloroethane	NA	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	NE	NE	NE
	Ethylbenzene	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	NE	NE	NE
	Methylene chloride	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	23	580	16,000
	N-propylbenzene	NA	NA	NE	NE	NE
	Styrene	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	1,000	1,800	50,000
	Toluene	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	NE	NE	NE

Table 11: SUMMARY OF STREAM CHANNEL AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)				
		Stream Channel Area Soil Samples		DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		SC-205-1	SC-206-1	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	26	54	1,500
	Trichloroethene	NA	NA	51	130	3,700
	Trichlorofluoromethane	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	6,900	6,900	81,000
	Vinyl chloride	NA	NA	4.4	34	950
	Xylenes, total	NA	NA	25,000	20,000	560,000
PAHs	Anthracene	0.0273	ND	350,000	110,000	>Max
	Acenaphthene	0.0142	ND	70,000	21,000	590,000
	Acenaphthylene	0.0105	ND	NE	NE	NE
	Benzo(a)anthracene	0.138	0.00102 J	21	170	4,800
	Benzo(a)pyrene	0.168	ND	2.1	17	490
	Benzo(b)fluoranthene	0.279	ND	21	170	4,900
	Benzo(g,h,i)perylene	0.13	ND	NE	NE	NE
	Benzo(k)fluoranthene	0.0709	ND	210	1,700	49,000
	Chrysene	0.201	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	0.0272	ND	2.1	17	490
	Fluoranthene	0.481	0.0019 J	30,000	10,000	280,000
	Fluorene	0.0104	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	0.109	ND	21	170	4,900
	Naphthalene	0.0348	ND	23	580	16,000
	Phenanthrene	0.208	ND	NE	NE	NE
	Pyrene	0.261	0.00127 J	23,000	7,500	210,000
	1-methylnaphthalene	0.00345 J	ND	NE	NE	NE
	2-methylnaphthalene	0.00596 J	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	NE	NE	NE
	Total PCBs	ND	ND J3	0.59	4.9	140
	Diesel-Range Organics	ND	ND	14,000	4,600	>Max
	Residual-Range Organics	23.6 J	ND	14,000	4,600	>Max
	Gasoline-Range Organics	0.122 J	0.133 J	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precisi

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this

Table 12: SUMMARY OF NORTH AND SOUTH "LOWERATORS" AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)						
		North and South "Lowerators" Area Soil Samples				DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		SL-180-10	SL-180-15	NL-182-5	NL-183-15	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	ND	NA	NE	NE	NE
	Arsenic	NA	NA	**3.97**	NA	1.9	15	420
	Beryllium	NA	NA	ND	NA	2,300	700	19,000
	Cadmium	NA	NA	ND	NA	1,100	350	9,700
	Chromium	NA	NA	**8.76**	NA	6.3	49	1,400
	Copper	NA	NA	3.97	NA	47,000	14,000	390,000
	Lead	NA	NA	3.63	NA	800	800	800
	Nickel	NA	NA	4.67	NA	22,000	7,000	190,000
	Selenium	NA	NA	ND	NA	NE	NE	NE
	Silver	NA	NA	ND	NA	5,800	1,800	49,000
	Thallium	NA	NA	ND	NA	NE	NE	NE
	Zinc	NA	NA	17.6	NA	NE	NE	NE
	Mercury	NA	NA	0.0444	NA	350	110	2,900
VOCs	Acetone	NA	NA	ND	NA	NE	NE	NE
	Acrylonitrile	NA	NA	ND	NA	4	40	1,100
	Benzene	NA	NA	0.00059 J	NA	37	380	11,000
	Bromobenzene	NA	NA	ND	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	ND	NA	15	230	6,300
	Bromoform	NA	NA	ND	NA	260	2,700	74,000
	Bromomethane	NA	NA	ND	NA	750	370	10,000
	N-butylbenzene	NA	NA	ND	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	ND	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	ND	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	ND	NA	34	320	8,900
	Chlorobenzene	NA	NA	ND	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	ND	NA	17	210	5,800
	Chloroethane	NA	NA	ND	NA	NE	NE	NE
	Chloroform	NA	NA	ND	NA	26	410	11,000
	Chloromethane	NA	NA	ND	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	ND	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	ND	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	ND	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	ND	NA	0.73	9	250
	Dibromomethane	NA	NA	ND	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	0.0223	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	0.00091 J	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	0.00202	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	ND	NA	NE	NE	NE
	1,1-dichloroethane	NA	NA	ND	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	ND	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	ND	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	ND	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	ND	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	ND	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	ND	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	ND	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	ND	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	ND	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	ND	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	ND	NA	NE	NE	NE
	Ethylbenzene	NA	NA	ND	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	ND	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	ND	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	ND	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	ND	NA	NE	NE	NE
	Methylene chloride	NA	NA	ND	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	ND	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	ND	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	ND	NA	23	580	16,000
	N-propylbenzene	NA	NA	ND	NA	NE	NE	NE
	Styrene	NA	NA	ND	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	ND	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	ND	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	ND	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	ND	NA	1,000	1,800	50,000
	Toluene	NA	NA	0.0102	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	ND	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	ND	NA	NE	NE	NE

Table 12: SUMMARY OF NORTH AND SOUTH "LOWERATORS" AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)						
		North and South "Lowerators" Area Soil Samples				DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		SL-180-10	SL-180-15	NL-182-5	NL-183-15	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	NA	ND	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	ND	NA	26	54	1,500
	Trichloroethene	NA	NA	ND	NA	51	130	3,700
	Trichlorofluoromethane	NA	NA	ND	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	ND	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	0.00073 J	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	0.00048 J	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	0.00032 J	NA	6,900	6,900	81,000
	Vinyl chloride	NA	NA	ND	NA	4.4	34	950
	Xylenes, total	NA	NA	ND	NA	25,000	20,000	560,000
PAHs	Anthracene	ND	0.0236 J	ND	ND	350,000	110,000	>Max
	Acenaphthene	ND	ND	ND	ND	70,000	21,000	590,000
	Acenaphthylene	ND	ND	ND	ND	NE	NE	NE
	Benzo(a)anthracene	ND	0.0446 J	ND	ND	21	170	4,800
	Benzo(a)pyrene	ND	0.887	0.00409 J	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	0.17	ND	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	ND	ND	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	0.0235 J	ND	ND	210	1,700	49,000
	Chrysene	ND	0.0182 J	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	1.1461 J	ND	ND	2.1	17	490
	Fluoranthene	ND	ND	ND	ND	30,000	10,000	280,000
	Fluorene	ND	0.0159 J	ND	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	0.0303 J	ND	ND	21	170	4,900
	Naphthalene	0.00519 J	ND	0.0264 J	ND	23	580	16,000
	Phenanthrene	ND	0.0158 J	ND	ND	NE	NE	NE
	Pyrene	ND	0.0387 J	0.00079 J	ND	23,000	7,500	210,000
	1-methylnaphthalene	ND	ND	ND	ND	NE	NE	NE
	2-methylnaphthalene	ND	0.0811 J	ND	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	NE	NE	NE
Total PCBs		NA	NA	NA	NA	0.59	4.9	140
Diesel-Range Organics		4440	26.6	166	NA	14,000	4,600	>Max
Residual-Range Organics		**61,500**	348	1,560	NA	14,000	4,600	>Max
Gasoline-Range Organics		NA	NA	NA	NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 13: SUMMARY OF NORTH SOUTH LOWERATORS GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)		
		North and South Lowerators Groundwater Samples		DEQ RBCs for Groundwater in Excavation
		SL-180-W	SL-186-W	Construction & Excavation Worker
Metals	Antimony	0.000867 J	ND	NE
	Arsenic	0.00732	0.0164	6.3
	Beryllium	ND	ND	270
	Cadmium	ND	ND	130
	Chromium	0.00641 J	0.0218	9.4
	Copper	0.00704 J	0.0119	5,400
	Lead	0.00447	0.00229	>S
	Nickel	ND	0.00975 J	>S
	Selenium	ND	ND	NE
	Silver	ND	ND	1,100
	Thallium	ND	ND	ND
	Zinc	0.596	0.0259 J	NE
	Mercury	0.0000683 B J	0.0000747 B J	>S
VOCs	Acetone	ND J4	ND J4	NE
	Acrolein	ND J4	ND J4	NE
	Acrylonitrile	ND	ND	0.25
	Benzene	ND	ND	1.8
	Bromobenzene	ND	ND	NE
	Bromodichloromethane	ND	ND	0.45
	Bromoform	ND	ND	14
	Bromomethane	ND	ND	1.2
	N-butylbenzene	ND	ND	NE
	Sec-butylbenzene	ND	ND	NE
	Tert-Butylbenzene	ND	ND	NE
	Carbon tetrachloride	ND	ND	1.8
	Chlorobenzene	ND	ND	10
	Chlorodibromomethane	ND	ND	0.61
	Chloroethane	ND J4	ND J4	2,400
	Chloroform	ND	ND	0.72
	Chloromethane	ND	ND	22
	2-Chlorotoluene	ND	ND	NE
	4-Chlorotoluene	ND	ND	NE
	1,2-dibromo-3-chloropropane	ND	ND	NE
	1,2-dibromoethane	ND	ND	NE
	Dibromomethane	ND	ND	NE
	1,2-dichlorobenzene	ND	ND	37
	1,3-dichlorobenzene	ND	ND	NE
	1,4-dichlorobenzene	ND	ND	1.5
	Dichlorodifluoromethane	ND	ND	NE
	1,1-dichloroethane	ND	ND	10
	1,2-dichloroethane	ND	ND	NE
	1,1-dichloroethene	ND	ND	44
	Cis-1,2-dichloroethene	ND	ND	18
	Trans-1,2-dichloroethene	ND	ND	180
	1,2-dichloropropane	ND	ND	NE
	1,1-dichloropropene	ND	ND	NE
	1,3-dichloropropane	ND	ND	NE
	Cis-1,3-dichloropropene	ND	ND	NE
	Trans-1,3-dichloropropene	ND	ND	NE
	2,2-dichloropropane	ND	ND	NE
	Di-isopropyl ether	ND	ND	NE
	Ethylbenzene	ND	ND	4.5
	Hexachloro-1,3-butadiene	ND	ND	NE
	Isopropylbenzene	ND	ND	51
	P-isopropyltoluene	ND	ND	NE
	2-butanone (Mek)	ND	ND	NE
	Methylene chloride	ND	ND	NE
	4-methyl-2-pentanone (Mibk)	ND	ND	NE
	Methyl tert-butyl ether	ND	ND	63
	Naphthalene	ND	ND	0.5
	N-propylbenzene	ND	ND	NE
	Styrene	ND	ND	170
	1,1,1,2-tetrachloroethane	ND	ND	NE
	1,1,2,2-tetrachloroethane	ND	ND	NE
	1,1,2-trichlorotrifluoroethane	ND	ND	>S
	Tetrachloroethene	ND	ND	6
	Toluene	ND	ND	220
	1,2,3-trichlorobenzene	ND	ND	NE

Table 13: SUMMARY OF NORTH SOUTH LOWERATORS GROUNDWATER CHEMICAL DATA

Compound		Concentration (mg/L)		
		North and South Lowerators Groundwater Samples		DEQ RBCs for Groundwater in Excavation
		SL-180-W	SL-186-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	ND	NE
	1,1,1-trichloroethane	ND	ND	1,100
	1,1,2-trichloroethane	ND	ND	0.049
	Trichloroethene	ND	ND	0.43
	Trichlorofluoromethane	ND	ND	160
	1,2,3-trichloropropane	ND	ND	NE
	1,2,4-trimethylbenzene	ND	ND	6
	1,2,3-trimethylbenzene	ND	ND	NE
	1,3,5-trimethylbenzene	ND	ND	8
	Vinyl chloride	ND	ND	0.96
	Xylenes, total	ND	ND	23
PAHs	Anthracene	ND	ND	>S
	Acenaphthene	ND	ND	>S
	Acenaphthylene	ND	ND	NE
	Benzo(a)anthracene	ND	ND	>S
	Benzo(a)pyrene	ND	ND	>S
	Benzo(b)fluoranthene	ND	ND	>S
	Benzo(g,h,i)perylene	ND	ND	NE
	Benzo(k)fluoranthene	ND	ND	>S
	Chrysene	ND	ND	>S
	Dibenz(a,h)anthracene	ND	ND	>S
	Fluoranthene	ND	ND	>S
	Fluorene	ND	ND	>S
	Indeno(1,2,3-cd)pyrene	ND	ND	>S
	Naphthalene	0.0000366 B J	0.0000447 B J	0.5
	Phenanthrene	ND	ND	NE
	Pyrene	ND	ND	>S
	1-methylnaphthalene	0.0000123 J	ND	NE
	2-methylnaphthalene	ND	ND	NE
	2-chloronaphthalene	ND	ND	NE
Diesel-Range Organics		7.58	0.0593 J	>S
Residual-Range Organics		11.1	0.248 J	>S
Gasoline-Range Organics		NA	ND	14

Notes:

ND: Not detected at concentration greater than method detection limit.
NA: Compound not analyzed for this sample.
B: The same analyte is found in the associated blank.
J: The identification of the analyte is acceptable; the reported value is an estimate.
J3: The associated batch QC was outside the established quality control range for precision.
J4: The associated batch QC was outside the established quality control range for accuracy
NE: Value not established.
T8: Sample(s) received past/too close to holding time expiration.
>S: The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold: Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.

Table 14: SUMMARY OF FORMER PAINT/MOBILE/FUEL SHOP AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)			
		Former Paint/Mobile/Fuel Shops Area Soil Samples	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		SH-177-5	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	ND	NE	NE	NE
	Arsenic	**4.33**	1.9	15	420
	Beryllium	ND	2,300	700	19,000
	Cadmium	ND	1,100	350	9,700
	Chromium	6.15	6.3	49	1400
	Copper	0.944 J	47,000	14,000	390,000
	Lead	1.62	800	800	800
	Nickel	3.45	22,000	7,000	190,000
	Selenium	ND	NE	NE	NE
	Silver	ND	5,800	1,800	49,000
	Thallium	ND	NE	NE	NE
	Zinc	7.93	NE	NE	NE
	Mercury	0.0443	350	110	2,900
VOCs	Acetone	ND	NE	NE	NE
	Acrylonitrile	ND	4	40	1,100
	Benzene	ND	37	380	11,000
	Bromobenzene	ND	NE	NE	NE
	Bromodichloromethane	ND	15	230	6,300
	Bromoform	ND	260	2,700	74,000
	Bromomethane	ND	750	370	10,000
	N-butylbenzene	ND	NE	NE	NE
	Sec-butylbenzene	ND	NE	NE	NE
	Tert-Butylbenzene	ND	NE	NE	NE
	Carbon tetrachloride	ND	34	320	8,900
	Chlorobenzene	ND	8,700	4,700	130,000
	Chlorodibromomethane	ND	17	210	5,800
	Chloroethane	ND	NE	NE	NE
	Chloroform	ND	26	410	11,000
	Chloromethane	ND	25,000	25,000	700,000
	2-Chlorotoluene	ND	NE	NE	NE
	4-Chlorotoluene	ND	NE	NE	NE
	1,2-dibromo-3-chloropropane	ND	NE	NE	NE
	1,2-dibromoethane	ND	0.73	9	250
	Dibromomethane	ND	NE	NE	NE
	1,2-dichlorobenzene	ND	36,000	20,000	560,000
	1,3-dichlorobenzene	ND	NE	NE	NE
	1,4-dichlorobenzene	ND	64	1,300	36,000
	Dichlorodifluoromethane	ND	NE	NE	NE
	1,1-dichloroethane	ND	260	3,200	89,000
	1,2-dichloroethane	ND	NE	NE	NE
	1,1-dichloroethene	ND	29,000	13,000	370,000
	Cis-1,2-dichloroethene	ND	2,300	710	20,000
	Trans-1,2-dichloroethene	ND	23,000	7,100	200,000
	1,2-dichloropropane	ND	NE	NE	NE
	1,1-dichloropropene	ND	NE	NE	NE
	1,3-dichloropropane	ND	NE	NE	NE
	Cis-1,3-dichloropropene	ND	NE	NE	NE
	Trans-1,3-dichloropropene	ND	NE	NE	NE
	2,2-dichloropropane	ND	NE	NE	NE
	Di-isopropyl ether	ND	NE	NE	NE
	Ethylbenzene	ND	150	1,700	49,000
	Hexachloro-1,3-butadiene	ND	NE	NE	NE
	Isopropylbenzene	ND	57,000	27,000	750,000
	P-isopropyltoluene	ND	NE	NE	NE
	2-butanone (Mek)	ND	NE	NE	NE
	Methylene chloride	ND	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	ND	NE	NE	NE
	Methyl tert-butyl ether	ND	1,100	12,000	320,000
	Naphthalene	ND	23	580	16,000
	N-propylbenzene	ND	NE	NE	NE
	Styrene	ND	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	ND	NE	NE	NE
	1,1,2,2-tetrachloroethane	ND	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	ND	NE	NE	NE
	Tetrachloroethene	ND	1,000	1,800	50,000
	Toluene	ND	88,000	28,000	770,000
	1,2,3-trichlorobenzene	ND	NE	NE	NE
	1,2,4-trichlorobenzene	ND	NE	NE	NE

Table 14: SUMMARY OF FORMER PAINT/MOBILE/FUEL SHOP AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)			
		Former Paint/Mobile/Fuel Shops Area Soil Samples	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		SH-177-5	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	ND	870,000	470,000	NE
	1,1,2-trichloroethane	ND	26	54	1,500
	Trichloroethene	ND	51	130	3,700
	Trichlorofluoromethane	ND	130,000	69,000	>Max
	1,2,3-trichloropropane	ND	NE	NE	NE
	1,2,4-trimethylbenzene	ND	6,900	6,900	81,000
	1,2,3-trimethylbenzene	ND	NE	NE	NE
	1,3,5-trimethylbenzene	ND	6,900	6,900	81,000
	Vinyl chloride	ND	4.4	34	950
	Xylenes, total	ND	25,000	20,000	560,000
PAHs	Anthracene	ND	350,000	110,000	>Max
	Acenaphthene	ND	70,000	21,000	590,000
	Acenaphthylene	ND	NE	NE	NE
	Benzo(a)anthracene	ND	21	170	4,800
	Benzo(a)pyrene	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	210	1,700	49,000
	Chrysene	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	2.1	17	490
	Fluoranthene	ND	30,000	10,000	280,000
	Fluorene	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	21	170	4,900
	Naphthalene	0.00307	23	580	16,000
	Phenanthrene	ND	NE	NE	NE
	Pyrene	ND	23,000	7,500	210,000
	1-methylnaphthalene	ND	NE	NE	NE
	2-methylnaphthalene	0.00382	NE	NE	NE
	2-chloronaphthalene	ND	NE	NE	NE
Total PCBs		NA	0.59	4.9	140
Diesel-Range Organics		12.5	14,000	4,600	>Max
Residual-Range Organics		29.8	14,000	4,600	>Max
Gasoline-Range Organics		2.68	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.
NA: NA: Compound not analyzed for this sample.
J: The identification of the analyte is acceptable; the reported value is an estimate.
J3: The associated batch QC was outside the established quality control range for precision.
V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection
NE: Value not established.
>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to
Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this

Table 15: SUMMARY OF FORMER SHOPS GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)	
		Former Shops Groundwater Samples	DEQ RBCs for Groundwater in Excavation
		SH-176-W	Construction & Excavation Worker
Metals	Antimony	ND	NE
	Arsenic	0.0127	6.3
	Beryllium	ND	270
	Cadmium	ND	130
	Chromium	0.0149	9.4
	Copper	0.00657 J	5,400
	Lead	0.00178 J	>S
	Nickel	0.0076 J	>S
	Selenium	ND	NE
	Silver	ND	1,100
	Thallium	ND	NE
	Zinc	0.0102 J	NE
	Mercury	ND	>S
VOCs	Acetone	ND J4	NE
	Acrolein	ND J4	NE
	Acrylonitrile	ND	0.25
	Benzene	ND	1.8
	Bromobenzene	ND	NE
	Bromodichloromethane	ND	0.45
	Bromoform	ND	14
	Bromomethane	ND	1.2
	N-butylbenzene	ND	NE
	Sec-butylbenzene	ND	NE
	Tert-Butylbenzene	ND	NE
	Carbon tetrachloride	ND	1.8
	Chlorobenzene	ND	10
	Chlorodibromomethane	ND	0.61
	Chloroethane	ND J4	2,400
	Chloroform	ND	0.72
	Chloromethane	ND	22
	2-Chlorotoluene	ND	NE
	4-Chlorotoluene	ND	NE
	1,2-dibromo-3-chloropropane	ND	NE
	1,2-dibromoethane	ND	NE
	Dibromomethane	ND	NE
	1,2-dichlorobenzene	ND	37
	1,3-dichlorobenzene	ND	NE
	1,4-dichlorobenzene	ND	1.5
	Dichlorodifluoromethane	ND	NE
	1,1-dichloroethane	ND	10
	1,2-dichloroethane	ND	NE
	1,1-dichloroethene	ND	44
	Cis-1,2-dichloroethene	ND	18
	Trans-1,2-dichloroethene	ND	180
	1,2-dichloropropane	ND	NE
	1,1-dichloropropene	ND	NE
	1,3-dichloropropane	ND	NE
	Cis-1,3-dichloropropene	ND	NE
	Trans-1,3-dichloropropene	ND	NE
	2,2-dichloropropane	ND	NE
	Di-isopropyl ether	ND	NE
	Ethylbenzene	ND	4.5
	Hexachloro-1,3-butadiene	ND	NE
	Isopropylbenzene	ND	51
	P-isopropyltoluene	ND	NE
	2-butanone (Mek)	ND	NE
	Methylene chloride	ND	NE
	4-methyl-2-pentanone (Mibk)	ND	NE
	Methyl tert-butyl ether	ND	63
	Naphthalene	ND	0.5
	N-propylbenzene	ND	NE
	Styrene	ND	170
	1,1,1,2-tetrachloroethane	ND	NE
	1,1,2,2-tetrachloroethane	ND	NE
	1,1,2-trichlorotrifluoroethane	ND	>S
	Tetrachloroethene	ND	6
	Toluene	0.00103	220
	1,2,3-trichlorobenzene	ND	NE

Table 15: SUMMARY OF FORMER SHOPS GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)	
		Former Shops Groundwater Samples	DEQ RBCs for Groundwater in Excavation
		SH-176-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	NE
	1,1,1-trichloroethane	ND	1,100
	1,1,2-trichloroethane	ND	0.049
	Trichloroethene	ND	0.43
	Trichlorofluoromethane	ND	160
	1,2,3-trichloropropane	ND	NE
	1,2,4-trimethylbenzene	ND	6
	1,2,3-trimethylbenzene	ND	NE
	1,3,5-trimethylbenzene	ND	8
	Vinyl chloride	ND	0.96
	Xylenes, total	ND	23
PAHs	Anthracene	ND	>S
	Acenaphthene	ND	>S
	Acenaphthylene	ND	NE
	Benzo(a)anthracene	ND	>S
	Benzo(a)pyrene	ND	>S
	Benzo(b)fluoranthene	ND	>S
	Benzo(g,h,i)perylene	ND	NE
	Benzo(k)fluoranthene	ND	>S
	Chrysene	ND	>S
	Dibenz(a,h)anthracene	ND	>S
	Fluoranthene	ND	>S
	Fluorene	ND	>S
	Indeno(1,2,3-cd)pyrene	ND	>S
	Naphthalene	0.0000508 B J	0.5
	Phenanthrene	ND	NE
	Pyrene	ND	>S
	1-methylnaphthalene	0.0000278 J	NE
	2-methylnaphthalene	0.0000139 J	NE
	2-chloronaphthalene	ND	NE
	Diesel-Range Organics	0.159	>S
	Residual-Range Organics	0.083 J	>S
	Gasoline-Range Organics	ND	14

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for prec

J4: The associated batch QC was outside the established quality control range for accu

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based

Bold: Value exceeds the RBC for groundwater in excavation for the construction and exc

Table 16: SUMMARY OF MOBILE SHOP AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)			
		Mobile Shop Area Soil Samples	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		MO-173-14	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	ND	NE	NE	NE
	Arsenic	**3.78**	1.9	15	420
	Beryllium	ND	2,300	700	19,000
	Cadmium	ND	1,100	350	9,700
	Chromium	5.45	6.3	49	1400
	Copper	1.04 J	47,000	14,000	390,000
	Lead	1.39	800	800	800
	Nickel	3.28	22,000	7,000	190,000
	Selenium	ND	NE	NE	NE
	Silver	ND	5,800	1,800	49,000
	Thallium	ND	NE	NE	NE
	Zinc	7.4	NE	NE	NE
	Mercury	0.0443	350	110	2,900
VOCs	Acetone	NA	NE	NE	NE
	Acrylonitrile	NA	4	40	1,100
	Benzene	NA	37	380	11,000
	Bromobenzene	NA	NE	NE	NE
	Bromodichloromethane	NA	15	230	6,300
	Bromoform	NA	260	2,700	74,000
	Bromomethane	NA	750	370	10,000
	N-butylbenzene	NA	NE	NE	NE
	Sec-butylbenzene	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NE	NE	NE
	Carbon tetrachloride	NA	34	320	8,900
	Chlorobenzene	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	17	210	5,800
	Chloroethane	NA	NE	NE	NE
	Chloroform	NA	26	410	11,000
	Chloromethane	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NE	NE	NE
	4-Chlorotoluene	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NE	NE	NE
	1,2-dibromoethane	NA	0.73	9	250
	Dibromomethane	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NE	NE	NE
	1,1-dichloroethane	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NE	NE	NE
	1,1-dichloroethene	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NE	NE	NE
	1,1-dichloropropene	NA	NE	NE	NE
	1,3-dichloropropane	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NE	NE	NE
	2,2-dichloropropane	NA	NE	NE	NE
	Di-isopropyl ether	NA	NE	NE	NE
	Ethylbenzene	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NE	NE	NE
	Isopropylbenzene	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NE	NE	NE
	2-butanone (Mek)	NA	NE	NE	NE
	Methylene chloride	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	1,100	12,000	320,000
	Naphthalene	NA	23	580	16,000
	N-propylbenzene	NA	NE	NE	NE
	Styrene	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NE	NE	NE
	Tetrachloroethene	NA	1,000	1,800	50,000
	Toluene	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NE	NE	NE

Table 16: SUMMARY OF MOBILE SHOP AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)			
		Mobile Shop Area Soil Samples	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		MO-173-14	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	26	54	1,500
	Trichloroethene	NA	51	130	3,700
	Trichlorofluoromethane	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	6,900	6,900	81,000
	Vinyl chloride	NA	4.4	34	950
	Xylenes, total	NA	25,000	20,000	560,000
PAHs	Anthracene	ND	350,000	110,000	>Max
	Acenaphthene	ND	70,000	21,000	590,000
	Acenaphthylene	ND	NE	NE	NE
	Benzo(a)anthracene	ND	21	170	4,800
	Benzo(a)pyrene	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	210	1,700	49,000
	Chrysene	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	2.1	17	490
	Fluoranthene	ND	30,000	10,000	280,000
	Fluorene	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	21	170	4,900
	Naphthalene	ND	23	580	16,000
	Phenanthrene	ND	NE	NE	NE
	Pyrene	ND	23,000	7,500	210,000
	1-methylnaphthalene	ND	NE	NE	NE
	2-methylnaphthalene	ND	NE	NE	NE
	2-chloronaphthalene	ND	NE	NE	NE
Total PCBs		NA	0.59	4.9	140
Diesel-Range Organics		ND	14,000	4,600	>Max
Residual-Range Organics		ND	14,000	4,600	>Max
Gasoline-Range Organics		NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high.

NE: Value not established.

>Max: The constituent rbc for this pathway is calculated as greater than 1,000,000 mg/kg

Bold: Value exceeds the RBC for soil ingestion, dermal contact, and inhalation for the occupational receptor scen

Table 17: SUMMARY OF MOBILE SHOPS GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/l)			
		Mobile Shops Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		MO-171-W	MO-173-W	MO-175-W	Construction & Excavation Worker
Metals	Antimony	NA	ND	0.00148 J	NE
	Arsenic	NA	0.000956 J	0.00783	6.3
	Beryllium	NA	ND	0.00104 J	270
	Cadmium	NA	ND	0.000799 J	130
	Chromium	NA	0.00749 J	0.117	9.4
	Copper	NA	0.00553 J	0.103	5,400
	Lead	NA	0.00172 J	0.0183	>S
	Nickel	NA	0.00634 J	0.177	>S
	Selenium	NA	0.00924 J	ND	NE
	Silver	NA	ND	ND	1,100
	Thallium	NA	ND	NA	NE
	Zinc	NA	0.952	0.197	NE
	Mercury	NA	ND	0.0000963 B J	>S
VOCs	Acetone	NA	ND J4	ND J J4	NE
	Acrolein	NA	ND J4	ND J4	NE
	Acrylonitrile	NA	ND	ND	0.25
	Benzene	NA	ND	ND	1.8
	Bromobenzene	NA	ND	ND	NE
	Bromodichloromethane	NA	ND	ND	0.45
	Bromoform	NA	ND	ND	14
	Bromomethane	NA	ND	ND	1.2
	N-butylbenzene	NA	ND	ND	NE
	Sec-butylbenzene	NA	ND	ND	NE
	Tert-Butylbenzene	NA	ND	ND	NE
	Carbon tetrachloride	NA	ND	ND	1.8
	Chlorobenzene	NA	ND	ND	10
	Chlorodibromomethane	NA	ND	ND	0.61
	Chloroethane	NA	ND J4	ND	2,400
	Chloroform	NA	ND	ND	0.72
	Chloromethane	NA	ND	ND	22
	2-Chlorotoluene	NA	ND	ND	NE
	4-Chlorotoluene	NA	ND	ND	NE
	1,2-dibromo-3-chloropropane	NA	ND	ND	NE
	1,2-dibromoethane	NA	ND	ND	NE
	Dibromomethane	NA	ND	ND	NE
	1,2-dichlorobenzene	NA	ND	ND	37
	1,3-dichlorobenzene	NA	ND	ND	NE
	1,4-dichlorobenzene	NA	ND	ND	1.5
	Dichlorodifluoromethane	NA	ND	ND	NE
	1,1-dichloroethane	NA	ND	ND	10
	1,2-dichloroethane	NA	ND	ND	NE
	1,1-dichloroethene	NA	ND	ND	44
	Cis-1,2-dichloroethene	NA	ND	ND	18
	Trans-1,2-dichloroethene	NA	ND	ND	180
	1,2-dichloropropane	NA	ND	ND	NE
	1,1-dichloropropene	NA	ND	ND	NE
	1,3-dichloropropane	NA	ND	ND	NE
	Cis-1,3-dichloropropene	NA	ND	ND	NE
	Trans-1,3-dichloropropene	NA	ND	ND	NE
	2,2-dichloropropane	NA	ND	ND	NE
	Di-isopropyl ether	NA	ND	ND	NE
	Ethylbenzene	NA	ND	ND	4.5
	Hexachloro-1,3-butadiene	NA	ND	ND	NE
	Isopropylbenzene	NA	ND	ND	51
	P-isopropyltoluene	NA	ND	ND	NE
	2-butanone (Mek)	NA	ND	ND	NE
	Methylene chloride	NA	ND	ND	NE
	4-methyl-2-pentanone (Mibk)	NA	ND	ND	NE
	Methyl tert-butyl ether	NA	ND	ND	63
	Naphthalene	NA	ND	ND	0.5
	N-propylbenzene	NA	ND	ND	NE
	Styrene	NA	ND	ND	170
	1,1,1,2-tetrachloroethane	NA	ND	ND	NE
	1,1,2,2-tetrachloroethane	NA	ND	ND	NE
	1,1,2-trichlorotrifluoroethane	NA	ND	ND	>S
	Tetrachloroethene	NA	ND	ND	6
	Toluene	NA	ND	ND	220
	1,2,3-trichlorobenzene	NA	ND	ND	NE

Table 17: SUMMARY OF MOBILE SHOPS GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/l)			
		Mobile Shops Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		MO-171-W	MO-173-W	MO-175-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	NA	ND	ND	NE
	1,1,1-trichloroethane	NA	ND	ND	1,100
	1,1,2-trichloroethane	NA	ND	ND	0.049
	Trichloroethene	NA	ND	ND	0.43
	Trichlorofluoromethane	NA	ND	ND	160
	1,2,3-trichloropropane	NA	ND	ND	NE
	1,2,4-trimethylbenzene	NA	ND	ND	6
	1,2,3-trimethylbenzene	NA	ND	ND	NE
	1,3,5-trimethylbenzene	NA	ND	ND	8
	Vinyl chloride	NA	ND	ND	0.96
	Xylenes, total	NA	ND	ND	23
PAHs	Anthracene	ND	ND	ND	>S
	Acenaphthene	ND	ND	ND	>S
	Acenaphthylene	ND	ND	ND	NE
	Benzo(a)anthracene	ND	ND	ND	>S
	Benzo(a)pyrene	ND	ND	ND	>S
	Benzo(b)fluoranthene	ND	ND	ND	>S
	Benzo(g,h,i)perylene	ND	ND	ND	NE
	Benzo(k)fluoranthene	ND	ND	ND	>S
	Chrysene	ND	ND	ND	>S
	Dibenz(a,h)anthracene	ND	ND	ND	>S
	Fluoranthene	ND	ND	ND	>S
	Fluorene	ND	ND	ND	>S
	Indeno(1,2,3-cd)pyrene	ND	ND	ND	>S
	Naphthalene	0.0000509 B J	0.0000472 B J	0.0000503 B J	0.5
	Phenanthrene	ND	ND	ND	NE
	Pyrene	ND	ND	ND	>S
	1-methylnaphthalene	ND	ND	0.0000162 J	NE
	2-methylnaphthalene	ND	ND	0.00002 J	NE
	2-chloronaphthalene	ND	ND	ND	NE
	Diesel-Range Organics	ND	ND	1.44	>S
	Residual-Range Organics	ND	ND	2.88	>S
	Gasoline-Range Organics	NA	ND	ND	14

Notes:

ND: Not detected at concentration greater than method detection limit.
NA: Compound not analyzed for this sample.
B: The same analyte is found in the associated blank.
J: The identification of the analyte is acceptable; the reported value is an estimate.
J3: The associated batch QC was outside the established quality control range for precision.
J4: The associated batch QC was outside the established quality control range for accuracy
NE: Value not established.
T8: Sample(s) received past/too close to holding time expiration.
>S: The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold: Value exceeds the rbc for groundwater in excavation for the construction and excavation worker

Table 18: SUMMARY OF SOUTH JORDAN POINT DEBRIS AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)						
		South Jordan Point Debris Area Soil Samples				DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		JP-188-6	JP-189-7	JP-190-7	JP-191-8	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	ND	ND	ND	NA	NE	NE	NE
	Arsenic	**2.39 J**	**4.66**	**7.07 J**	NA	1.9	15	420
	Beryllium	ND	0.146 J	0.32 J	NA	2,300	700	19,000
	Cadmium	ND	ND	0.391 J	NA	1,100	350	9,700
	Chromium	**19.7**	**15.6**	**38.3**	NA	6.3	49	1400
	Copper	19.5	10.6	44	NA	47,000	14,000	390,000
	Lead	8.66	6.38	35.8	NA	800	800	800
	Nickel	22.4	13.2	34	NA	22,000	7,000	190,000
	Selenium	ND	ND	ND	NA	NE	NE	NE
	Silver	ND	ND	ND	NA	5,800	1,800	49,000
	Thallium	ND	ND	ND	NA	NE	NE	NE
	Zinc	52.3	37.1	130	NA	NE	NE	NE
	Mercury	0.0223 J	0.0142 J	0.058 J	NA	350	110	2,900
VOCs	Acetone	NA	NA	NA	NA	NE	NE	NE
	Acrylonitrile	NA	NA	NA	NA	4	40	1,100
	Benzene	NA	NA	NA	NA	37	380	11,000
	Bromobenzene	NA	NA	NA	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	NA	NA	15	230	6,300
	Bromoform	NA	NA	NA	NA	260	2,700	74,000
	Bromomethane	NA	NA	NA	NA	750	370	10,000
	N-butylbenzene	NA	NA	NA	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	NA	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	NA	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	NA	NA	34	320	8,900
	Chlorobenzene	NA	NA	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	NA	NA	17	210	5,800
	Chloroethane	NA	NA	NA	NA	NE	NE	NE
	Chloroform	NA	NA	NA	NA	26	410	11,000
	Chloromethane	NA	NA	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	NA	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	NA	NA	0.73	9	250
	Dibromomethane	NA	NA	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethane	NA	NA	NA	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	NA	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	NA	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	NA	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	NA	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	NA	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	NA	NA	NE	NE	NE
	Ethylbenzene	NA	NA	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	NA	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	NA	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	NA	NA	NE	NE	NE
	Methylene chloride	NA	NA	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	NA	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	NA	NA	23	580	16,000
	N-propylbenzene	NA	NA	NA	NA	NE	NE	NE
	Styrene	NA	NA	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	NA	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	NA	NA	1,000	1,800	50,000
	Toluene	NA	NA	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	NA	NA	NE	NE	NE

Table 18: SUMMARY OF SOUTH JORDAN POINT DEBRIS AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)						
		South Jordan Point Debris Area Soil Samples				DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		JP-188-6	JP-189-7	JP-190-7	JP-191-8	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	NA	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	NA	NA	26	54	1,500
	Trichloroethene	NA	NA	NA	NA	51	130	3,700
	Trichlorofluoromethane	NA	NA	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	NA	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	NA	NA	6,900	6,900	81,000
	Vinyl chloride	NA	NA	NA	NA	4.4	34	950
	Xylenes, total	NA	NA	NA	NA	25,000	20,000	560,000
PAHs	Anthracene	0.0276	ND	0.00726 J	ND	350,000	110,000	>Max
	Acenaphthene	0.00559 J	0.00132 J	0.00393 J	ND	70,000	21,000	590,000
	Acenaphthylene	0.00429 J	0.00297 J	0.137	ND	NE	NE	NE
	Benzo(a)anthracene	0.00504 J	ND	0.0131 J	ND	21	170	4,800
	Benzo(a)pyrene	0.00173 J	ND	ND	ND	2.1	17	490
	Benzo(b)fluoranthene	0.00965 J	ND	0.00254 J	ND	21	170	4,900
	Benzo(g,h,i)perylene	0.0539	ND	0.00226 J	ND	NE	NE	NE
	Benzo(k)fluoranthene	0.00234 J	ND	ND	ND	210	1,700	49,000
	Chrysene	0.0148	ND	0.0116 J	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	0.0287	0.00164 J	0.0262	ND	30,000	10,000	280,000
	Fluorene	0.00858 J	ND	0.00271 J	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	0.00191 J	ND	ND	ND	21	170	4,900
	Naphthalene	0.0547	0.00839 J	1.12	ND	23	580	16,000
	Phenanthrene	0.0815	0.00124 J	0.0643	ND	NE	NE	NE
	Pyrene	0.0406	0.00105 J	0.0188 J	ND	23,000	7,500	210,000
	1-methylnaphthalene	0.0281 J	ND	0.0598 J	ND	NE	NE	NE
	2-methylnaphthalene	0.0317 J	ND	0.0634 J	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	NE	NE	NE
Total PCBs		NA	NA	ND	NA	0.59	4.9	140
Diesel-Range Organics		48	NA	NA	ND	14,000	4,600	>Max
Residual-Range Organics		1,980	NA	NA	ND	14,000	4,600	>Max
Gasoline-Range Organics		NA	NA	NA	ND	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 19: SUMMARY OF JORDAN POINT GROUNDWATER CHEMICAL DATA

Compound		Concentration (mg/L)		
		Jordan Point Groundwater Samples		DEQ RBCs for Groundwater in Excavation
		JP-188-W	JP-191-W	Construction & Excavation Worker
Metals	Antimony	ND	ND	NE
	Arsenic	0.00613	0.00626	6.3
	Beryllium	ND	ND	270
	Cadmium	ND	ND	130
	Chromium	0.08	0.0147	9.4
	Copper	0.11	0.00712 J	5,400
	Lead	0.00424	0.00437	>S
	Nickel	0.0379	0.00867 J	>S
	Selenium	ND	ND	NE
	Silver	ND	ND	1,100
	Thallium	ND	ND	ND
	Zinc	0.0267 J	0.0162 J	NE
	Mercury	0.0000514 J	0.000102 J	>S
VOCs	Acetone	ND	ND	NE
	Acrolein	ND	ND	NE
	Acrylonitrile	ND	ND	0.25
	Benzene	ND	ND	1.8
	Bromobenzene	ND	ND	NE
	Bromodichloromethane	ND	ND	0.45
	Bromoform	ND	ND	14
	Bromomethane	ND	ND	1.2
	N-butylbenzene	ND	ND	NE
	Sec-butylbenzene	ND	ND	NE
	Tert-Butylbenzene	ND	ND	NE
	Carbon tetrachloride	ND	ND	1.8
	Chlorobenzene	ND	ND	10
	Chlorodibromomethane	ND	ND	0.61
	Chloroethane	ND	ND	2,400
	Chloroform	ND	ND	0.72
	Chloromethane	ND	ND	22
	2-Chlorotoluene	ND	ND	NE
	4-Chlorotoluene	ND	ND	NE
	1,2-dibromo-3-chloropropane	ND	ND	NE
	1,2-dibromoethane	ND	ND	NE
	Dibromomethane	ND	ND	NE
	1,2-dichlorobenzene	ND	ND	37
	1,3-dichlorobenzene	ND	ND	NE
	1,4-dichlorobenzene	ND	ND	1.5
	Dichlorodifluoromethane	ND	ND	NE
	1,1-dichloroethane	ND	ND	10
	1,2-dichloroethane	ND	ND	NE
	1,1-dichloroethene	ND	ND	44
	Cis-1,2-dichloroethene	ND	ND	18
	Trans-1,2-dichloroethene	ND	ND	180
	1,2-dichloropropane	ND	ND	NE
	1,1-dichloropropene	ND	ND	NE
	1,3-dichloropropane	ND	ND	NE
	Cis-1,3-dichloropropene	ND	ND	NE
	Trans-1,3-dichloropropene	ND	ND	NE
	2,2-dichloropropane	ND	ND	NE
	Di-isopropyl ether	ND	ND	NE
	Ethylbenzene	ND	ND	4.5
	Hexachloro-1,3-butadiene	ND	ND	NE
	Isopropylbenzene	ND	ND	51
	P-isopropyltoluene	ND	ND	NE
	2-butanone (Mek)	ND	ND	NE
	Methylene chloride	ND	ND	NE
	4-methyl-2-pentanone (Mibk)	ND	ND	NE
	Methyl tert-butyl ether	ND	ND	63
	Naphthalene	ND	ND	0.5
	N-propylbenzene	ND	ND	NE
	Styrene	ND	ND	170
	1,1,1,2-tetrachloroethane	ND	ND	NE
	1,1,2,2-tetrachloroethane	ND	ND	NE
	1,1,2-trichlorotrifluoroethane	ND	ND	>S
	Tetrachloroethene	ND	ND	6
	Toluene	ND	ND	220
	1,2,3-trichlorobenzene	ND	ND	NE

Table 19: SUMMARY OF JORDAN POINT GROUNDWATER CHEMICAL DATA

Compound		Concentration (mg/L)		
		Jordan Point Groundwater Samples		DEQ RBCs for Groundwater in Excavation
		JP-188-W	JP-191-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	ND	NE
	1,1,1-trichloroethane	ND	ND	1,100
	1,1,2-trichloroethane	ND	ND	0.049
	Trichloroethene	ND	ND	0.43
	Trichlorofluoromethane	ND	ND	160
	1,2,3-trichloropropane	ND	ND	NE
	1,2,4-trimethylbenzene	ND	ND	6
	1,2,3-trimethylbenzene	ND	ND	NE
	1,3,5-trimethylbenzene	ND	ND	8
	Vinyl chloride	ND	ND	0.96
	Xylenes, total	ND	ND	23
PAHs	Anthracene	ND	ND	>S
	Acenaphthene	ND	ND	>S
	Acenaphthylene	ND	ND	NE
	Benzo(a)anthracene	ND	ND	>S
	Benzo(a)pyrene	ND	ND	>S
	Benzo(b)fluoranthene	ND	ND	>S
	Benzo(g,h,i)perylene	0.00000474 B J	ND	NE
	Benzo(k)fluoranthene	ND	ND	>S
	Chrysene	ND	ND	>S
	Dibenz(a,h)anthracene	ND	ND	>S
	Fluoranthene	ND	ND	>S
	Fluorene	ND	ND	>S
	Indeno(1,2,3-cd)pyrene	ND	ND	>S
	Naphthalene	0.0000937 B J	0.0000543 B J	0.5
	Phenanthrene	ND	ND	NE
	Pyrene	ND	ND	>S
	1-methylnaphthalene	ND	ND	NE
	2-methylnaphthalene	ND	0.00001 J	NE
	2-chloronaphthalene	ND	ND	NE
Diesel-Range Organics		0.674	0.179	>S
Residual-Range Organics		1.31	0.21 J	>S
Gasoline-Range Organics		ND	ND	14

Notes:

ND:	Not detected at concentration greater than method detection limit.
NA:	Compound not analyzed for this sample.
B:	The same analyte is found in the associated blank.
J:	The identification of the analyte is acceptable; the reported value is an estimate.
J3:	The associated batch QC was outside the established quality control range for precisio
J4:	The associated batch QC was outside the established quality control range for accurac
NE:	Value not established.
T8:	Sample(s) received past/too close to holding time expiration.
>S:	The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold:	Value exceeds the rbc for groundwater in excavation for the construction and excavatio

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-101-7 through BP-107-12)

	Compound	Concentration (mg/kg)											
		Boiler and Powerhouse Area Soil Samples									DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-101-7	BP-101-30	BP-102-12	BP-102-20	BP-103-13	BP-104-13	BP-104-20	BP-106-13	BP-107-12	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Arsenic	NA	NA	**3.68**	NA	NA	NA	NA	NA	NA	1.9	15	420
	Beryllium	NA	NA	0.146 J	NA	NA	NA	NA	NA	NA	2,300	700	19,000
	Cadmium	NA	NA	ND	NA	NA	NA	NA	NA	NA	1,100	350	9,700
	Chromium	NA	NA	**11.6**	NA	NA	NA	NA	NA	NA	6.3	49	1400
	Copper	NA	NA	10.8	NA	NA	NA	NA	NA	NA	47,000	14,000	390,000
	Lead	NA	NA	4.61	NA	NA	NA	NA	NA	NA	800	800	800
	Nickel	NA	NA	9.84	NA	NA	NA	NA	NA	NA	22,000	7,000	190,000
	Selenium	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Silver	NA	NA	ND	NA	NA	NA	NA	NA	NA	5,800	1,800	49,000
	Thallium	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Zinc	NA	NA	26.7	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Mercury	NA	NA	0.0416 B	NA	NA	NA	NA	NA	NA	350	110	2,900
	Acetone	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Acrylonitrile	NA	NA	ND	NA	NA	NA	NA	NA	NA	4	40	1,100
	Benzene	NA	NA	0.000374 J	NA	NA	NA	NA	NA	NA	37	380	11,000
	Bromobenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	15	230	6,300
	Bromoform	NA	NA	ND	NA	NA	NA	NA	NA	NA	260	2,700	74,000
	Bromomethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	750	370	10,000
	N-butylbenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	ND	NA	NA	NA	NA	NA	NA	34	320	8,900
	Chlorobenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	17	210	5,800
	Chloroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Chloroform	NA	NA	ND	NA	NA	NA	NA	NA	NA	26	410	11,000
	Chloromethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	0.73	9	250
	Dibromomethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-101-7 through BP-107-12)

	Compound	Concentration (mg/kg)											
		Boiler and Powerhouse Area Soil Samples									DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-101-7	BP-101-30	BP-102-12	BP-102-20	BP-103-13	BP-104-13	BP-104-20	BP-106-13	BP-107-12	Occupational	Construction Worker	Excavation Worker
VOCs	1,1-dichloroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	ND	NA	NA	NA	NA	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	ND	NA	NA	NA	NA	NA	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	ND	NA	NA	NA	NA	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Ethylbenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Methylene chloride	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	ND	NA	NA	NA	NA	NA	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	0.0636 J	NA	NA	NA	NA	NA	NA	23	580	16,000
	N-propylbenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Styrene	NA	NA	ND	NA	NA	NA	NA	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	ND	NA	NA	NA	NA	NA	NA	1,000	1,800	50,000
	Toluene	NA	NA	ND	NA	NA	NA	NA	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,1-trichloroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	26	54	1,500
	Trichloroethene	NA	NA	ND	NA	NA	NA	NA	NA	NA	51	130	3,700
	Trichlorofluoromethane	NA	NA	ND	NA	NA	NA	NA	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	0.000299 J	NA	NA	NA	NA	NA	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	ND	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	0.000368 J	NA	NA	NA	NA	NA	NA	6,900	6,900	81,000

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-101-7 through BP-107-12)

	Compound	Concentration (mg/kg)											
		Boiler and Powerhouse Area Soil Samples									DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-101-7	BP-101-30	BP-102-12	BP-102-20	BP-103-13	BP-104-13	BP-104-20	BP-106-13	BP-107-12	Occupational	Construction Worker	Excavation Worker
	Vinyl chloride	NA	NA	ND	NA	NA	NA	NA	NA	NA	4.4	34	950
	Xylenes, total	NA	NA	ND	NA	NA	NA	NA	NA	NA	25,000	20,000	560,000
PAHs	Anthracene	0.0013 J	ND	0.0739	ND	ND	ND	ND	ND	ND	350,000	110,000	>Max
	Acenaphthene	0.00496 J	ND	0.0915	ND	ND	0.00542 J	ND	ND	ND	70,000	21,000	590,000
	Acenaphthylene	0.00951 J	ND	ND	ND	ND	0.0206 J	ND	ND	ND	NE	NE	NE
	Benzo(a)anthracene	0.00116 J	ND	0.00733 J	ND	ND	ND	ND	ND	ND	21	170	4,800
	Benzo(a)pyrene	ND	ND	0.00403 J	ND	ND	ND	ND	ND	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	ND	0.00421 J	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	210	1,700	49,000
	Chrysene	ND	ND	0.00691 J	ND	ND	ND	ND	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	0.00216 J	ND	0.0217 J	ND	ND	0.00442 J	ND	ND	ND	30,000	10,000	280,000
	Fluorene	0.0012 J	ND	0.0308	ND	ND	ND	ND	ND	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	21	170	4,900
	Naphthalene	0.0785	ND	0.165	ND	ND	0.199	ND	ND	ND	23	580	16,000
	Phenanthrene	0.00455 J	ND	0.139	ND	ND	0.00907 J	ND	ND	ND	NE	NE	NE
	Pyrene	0.00179 J	ND	0.0641	ND	ND	0.00374 J	ND	ND	ND	23,000	7,500	210,000
	1-methylnaphthalene	0.016 J	ND	0.321	ND	ND	ND	ND	ND	ND	NE	NE	NE
	2-methylnaphthalene	0.0128 J	ND	0.409	ND	ND	ND	ND	ND	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
Total PCBs		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.59	4.9	140
Diesel-Range Organics		NA	NA	697 J3	NA	NA	NA	NA	NA	NA	14,000	4,600	>Max
Residual-Range Organics		NA	NA	757 J3	NA	NA	NA	NA	NA	NA	14,000	4,600	>Max
Gasoline-Range Organics		NA	NA	0.803	NA	NA	NA	NA	NA	NA	20,000	9,700	>Max

Notes:
ND: Not detected at concentration greater than method detection limit.
NA: NA: Compound not analyzed for this sample.
J: The identification of the analyte is acceptable; the reported value is an estimate.
J3: The associated batch QC was outside the established quality control range for precision.
V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.
NE: Value not established.
>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.
Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-108-13 through BP-126-6)

	Compound	Concentration (mg/kg)										
		Boiler and Powerhouse Area Soil Samples								DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-108-13	BP-108-17	BP-119-8	BP-119-17	BP-119-33	BP-121-9	BP-125-13	BP-126-6	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	1.9	15	420
	Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	2,300	700	19,000
	Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	1,100	350	9,700
	Chromium	NA	NA	NA	NA	NA	NA	NA	NA	6.3	49	1400
	Copper	NA	NA	NA	NA	NA	NA	NA	NA	47,000	14,000	390,000
	Lead	NA	NA	NA	NA	NA	NA	NA	NA	800	800	800
	Nickel	NA	NA	NA	NA	NA	NA	NA	NA	22,000	7,000	190,000
	Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Silver	NA	NA	NA	NA	NA	NA	NA	NA	5,800	1,800	49,000
	Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Mercury	NA	NA	NA	NA	NA	NA	NA	NA	350	110	2,900
VOCs	Acetone	NA	NA	ND	0.0188 J	NA	NA	NA	NA	NE	NE	NE
	Acrylonitrile	NA	NA	ND	ND	NA	NA	NA	NA	4	40	1,100
	Benzene	NA	NA	ND	ND	NA	NA	NA	NA	37	380	11,000
	Bromobenzene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	ND	ND	NA	NA	NA	NA	15	230	6,300
	Bromoform	NA	NA	ND	ND	NA	NA	NA	NA	260	2,700	74,000
	Bromomethane	NA	NA	ND	ND	NA	NA	NA	NA	750	370	10,000
	N-butylbenzene	NA	NA	0.751	ND	NA	NA	NA	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	0.101 J	ND	NA	NA	NA	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	ND	ND	NA	NA	NA	NA	34	320	8,900
	Chlorobenzene	NA	NA	ND	ND	NA	NA	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	ND	ND	NA	NA	NA	NA	17	210	5,800
	Chloroethane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Chloroform	NA	NA	ND	ND	NA	NA	NA	NA	26	410	11,000
	Chloromethane	NA	NA	ND	ND	NA	NA	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	ND	ND	NA	NA	NA	NA	0.73	9	250
	Dibromomethane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	ND	ND	NA	NA	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	ND	ND	NA	NA	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethane	NA	NA	ND	ND	NA	NA	NA	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	ND	ND	NA	NA	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	ND	ND	NA	NA	NA	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	ND	ND	NA	NA	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-108-13 through BP-126-6)

	Compound	Concentration (mg/kg)										
		Boiler and Powerhouse Area Soil Samples								DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-108-13	BP-108-17	BP-119-8	BP-119-17	BP-119-33	BP-121-9	BP-125-13	BP-126-6	Occupational	Construction Worker	Excavation Worker
	Trans-1,3-dichloropropene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Ethylbenzene	NA	NA	0.0402 J	ND	NA	NA	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	0.0773 J	ND	NA	NA	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	0.0310 J	ND	NA	NA	NA	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Methylene chloride	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	ND	ND	NA	NA	NA	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	12.7	ND	NA	NA	NA	NA	23	580	16,000
	N-propylbenzene	NA	NA	0.549	ND	NA	NA	NA	NA	NE	NE	NE
	Styrene	NA	NA	ND	ND	NA	NA	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	ND	ND	NA	NA	NA	NA	1,000	1,800	50,000
	Toluene	NA	NA	ND	ND	NA	NA	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,1,1-trichloroethane	NA	NA	ND	ND	NA	NA	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	ND	ND	NA	NA	NA	NA	26	54	1,500
	Trichloroethene	NA	NA	ND	ND	NA	NA	NA	NA	51	130	3,700
	Trichlorofluoromethane	NA	NA	ND	ND	NA	NA	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	ND	ND	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	0.0239 J	ND	NA	NA	NA	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	0.114	ND	NA	NA	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	ND	ND	NA	NA	NA	NA	6,900	6,900	81,000
	Vinyl chloride	NA	NA	ND	ND	NA	NA	NA	NA	4.4	34	950
	Xylenes, total	NA	NA	0.0872 J	ND	NA	NA	NA	NA	25,000	20,000	560,000
PAHs	Anthracene	0.00391 J	ND	30.7	0.00241 J	0.00072 J	ND	0.0017 J	0.0147 J	350,000	110,000	>Max
	Acenaphthene	0.00718 J	ND	30.6	0.00376 J	0.0014 J	ND	0.0327	ND	70,000	21,000	590,000
	Acenaphthylene	0.0134 J	ND	ND	0.00082 J	ND	ND	ND	0.0205 J	NE	NE	NE
	Benzo(a)anthracene	0.00254 J	ND	5.94	0.00109 J	ND	ND	ND	0.0257 J	21	170	4,800
	Benzo(a)pyrene	ND	ND	**2.27**	ND	ND	ND	ND	0.0163 J	2.1	17	490
	Benzo(b)fluoranthene	ND	ND	1.15	ND	ND	ND	ND	0.0432 J	21	170	4,900
	Benzo(g,h,i)perylene	ND	ND	0.998	ND	ND	ND	ND	0.449	NE	NE	NE
	Benzo(k)fluoranthene	ND	ND	0.0605 J	ND	ND	ND	ND	0.0201 J	210	1,700	49,000
	Chrysene	ND	ND	10.0	0.00073 J	ND	ND	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	ND	0.275 J	ND	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	0.00467 J	ND	4.45	ND	ND	ND	0.00377 J	0.0152 J	30,000	10,000	280,000
	Fluorene	0.00271 J	ND	28.8	0.00339	0.00128 J	0.00075 J	0.0109	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	ND	0.179 J	ND	ND	ND	ND	0.0224	21	170	4,900
	Naphthalene	0.106	ND	**92.0**	0.0129 J	ND	ND	0.02 J	ND	23	580	16,000
	Phenanthrene	0.012 J	ND	124	0.00928	0.00314 J	ND	ND	0.015 J	NE	NE	NE
	Pyrene	0.00442 J	ND	28.2	0.00229 J	ND	ND	0.00255 J	0.0199 J	23,000	7,500	210,000

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-108-13 through BP-126-6)

Compound	Concentration (mg/kg)										
	Boiler and Powerhouse Area Soil Samples								DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
	BP-108-13	**BP-108-17**	**BP-119-8**	**BP-119-17**	**BP-119-33**	**BP-121-9**	**BP-125-13**	**BP-126-6**	**Occupational**	**Construction Worker**	**Excavation Worker**
1-methylnaphthalene	ND	ND	138	0.0451	0.00855 J	ND	0.0032 J	ND	NE	NE	NE
2-methylnaphthalene	0.00785 J	ND	202	0.052	0.00959 J	ND	0.00403	ND	NE	NE	NE
2-chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	0.59	4.9	140
Diesel-Range Organics	85.1	NA	**27,600 J3**	ND	ND	NA	ND	NA	14,000	4,600	>Max
Residual-Range Organics	389	NA	**14,000 J3**	5.79	ND	NA	ND	NA	14,000	4,600	>Max
Gasoline-Range Organics	NA	NA	161	NA	NA	NA	NA	NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-127.8 through BP-202.10)

	Compound	Concentration (mg/kg)										
		Boiler and Powerhouse Area Soil Samples								DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-127-8	BP-129-8	BP-129-14	BP-187-11	BP-200-8	BP-200-13	BP-202-4	BP-202-10	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	NA	NA	NA	NA	ND	NA	NE	NE	NE
	Arsenic	NA	NA	NA	NA	NA	NA	**4.17**	NA	1.9	15	420
	Beryllium	NA	NA	NA	NA	NA	NA	0.139 J	NA	2,300	700	19,000
	Cadmium	NA	NA	NA	NA	NA	NA	0.151 J	NA	1,100	350	9,700
	Chromium	NA	NA	NA	NA	NA	NA	**13.8**	NA	6.3	49	1400
	Copper	NA	NA	NA	NA	NA	NA	28.8	NA	47,000	14,000	390,000
	Lead	NA	NA	NA	NA	NA	NA	12.6	NA	800	800	800
	Nickel	NA	NA	NA	NA	NA	NA	13.7	NA	22,000	7,000	190,000
	Selenium	NA	NA	NA	NA	NA	NA	ND	NA	NE	NE	NE
	Silver	NA	NA	NA	NA	NA	NA	ND	NA	5,800	1,800	49,000
	Thallium	NA	NA	NA	NA	NA	NA	ND	NA	NE	NE	NE
	Zinc	NA	NA	NA	NA	NA	NA	56.9	NA	NE	NE	NE
	Mercury	NA	NA	NA	NA	NA	NA	0.0367	NA	350	110	2,900
	Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	4	40	1,100
	Benzene	NA	NA	NA	NA	NA	NA	NA	NA	37	380	11,000
	Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	15	230	6,300
	Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	260	2,700	74,000
	Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	750	370	10,000
	N-butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Sec-butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	34	320	8,900
	Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	17	210	5,800
	Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	26	410	11,000
	Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	4-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	0.73	9	250
	Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	2,300	710	20,000

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-127.8 through BP-202.10)

	Compound	Concentration (mg/kg)										
		Boiler and Powerhouse Area Soil Samples								DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-127-8	BP-129-8	BP-129-14	BP-187-11	BP-200-8	BP-200-13	BP-202-4	BP-202-10	Occupational	Construction Worker	Excavation Worker
VOCs	Trans-1,2-dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,3-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	2,2-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Di-isopropyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	2-butanone (Mek)	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	1,100	12,000	320,000
	Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	23	580	16,000
	N-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Styrene	NA	NA	NA	NA	NA	NA	NA	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	1,000	1,800	50,000
	Toluene	NA	NA	NA	NA	NA	NA	NA	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,1,1-trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	26	54	1,500
	Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	51	130	6,700
	Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	6,900	6,900	81,000
	Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	4.4	34	950
	Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	25,000	20,000	560,000
	Anthracene	ND	22.9	ND	ND	1.06	ND	0.00485 J	ND	350,000	110,000	>Max
	Acenaphthene	ND	16.1	0.00719 J	ND	1.46	ND	0.00078 J	ND	70,000	21,000	590,000
	Acenaphthylene	ND	3.64	ND	ND	0.182	ND	0.00184 J	ND	NE	NE	NE
	Benzo(a)anthracene	ND	3.88	0.00218 J	ND	0.0922	ND	0.0397	ND	21	170	4,800
	Benzo(a)pyrene	ND	1.76	0.00077 J	0.00073 J	0.0405 J	ND	0.0368	ND	2.1	17	490
	Benzo(b)fluoranthene	ND	0.842	ND	ND	0.0431 J	ND	0.0479	ND	21	170	4,900

Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA
(BP-127.8 through BP-202.10)

	Compound	Concentration (mg/kg)										
		Boiler and Powerhouse Area Soil Samples								DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		BP-127-8	BP-129-8	BP-129-14	BP-187-11	BP-200-8	BP-200-13	BP-202-4	BP-202-10	Occupational	Construction Worker	Excavation Worker
PAHs	Benzo(g,h,i)perylene	ND	0.836	ND	ND	0.0376 J	ND	0.0263	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	0.16	ND	ND	0.0181 J	ND	0.0215	ND	210	1,700	49,000
	Chrysene	ND	7.08	0.00318 J	ND	0.172	ND	0.0407	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	0.228	ND	ND	0.00824 J	ND	0.00632 J	ND	2.1	17	490
	Fluoranthene	ND	2.83	0.00191 J	ND	0.403	ND	0.0678	ND	30,000	10,000	280,000
	Fluorene	ND	16.5	0.0048 J	ND	0.481	ND	0.00125 J	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	0.130 J	ND	ND	0.0106 J	ND	0.0217	ND	21	170	4,900
	Naphthalene	ND	**50.4**	0.00388 J	0.00449 J	0.153 J	ND	ND	ND	23	580	16,000
	Phenanthrene	ND	86.0	0.0166	ND	0.508	ND	0.0146	ND	NE	NE	NE
	Pyrene	ND	17.6	0.00812	ND	1.4	ND	0.0475	ND	23,000	7,500	210,000
	1-methylnaphthalene	ND	258	0.0492	ND	0.455	ND	0.00308 J	ND	NE	NE	NE
	2-methylnaphthalene	ND	35.8	0.00709 J	ND	0.400	ND	0.00463 J	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Total PCBs	NA	NA	NA	NA	NA	NA	ND J3	NA	0.59	4.9	140
	Diesel-Range Organics	NA	**10,800**	11.2	NA	2,360	NA	ND	NA	14,000	4,600	>Max
	Residual-Range Organics	NA	**5,100**	ND J	NA	967	NA	98.2	NA	14,000	4,600	>Max
	Gasoline-Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 21: SUMMARY OF BOILER AND POWERHOUSE GROUNDWATER CHEMICAL DATA

Compound		Concentration (mg/L)						
		Boiler and Powerhouse Groundwater Samples						DEQ RBCs for Groundwater in Excavation
		BP-102-W	BP-109-W	BP-119-W	BP-121-W	BP-187-W	BP-202-W	Construction & Excavation Worker
Metals	Antimony	ND	0.000828 J	ND	NA	ND	NA	NE
	Arsenic	0.0105	0.00301	0.00474	NA	0.00908	NA	6.3
	Beryllium	ND	ND	ND	NA	ND	NA	270
	Cadmium	ND	ND	ND	NA	ND	NA	130
	Chromium	0.0368	0.005 J	0.00313 J	NA	0.0215	NA	9.4
	Copper	0.0194	ND	ND	NA	ND	NA	5,400
	Lead	0.0103	0.00184 B J	0.000716 J	NA	0.00529	NA	>S
	Nickel	0.0193	ND	ND	NA	0.0127	NA	>S
	Selenium	ND	ND	ND	NA	ND	NA	NE
	Silver	ND	ND	ND	NA	ND	NA	1,100
	Thallium	0.000372 J	0.00028 B J	NA	NA	ND	NA	NE
	Zinc	0.0625	0.0079 J	ND	NA	0.0245 J	NA	NE
	Mercury	0.0000545 J J3	ND J3	0.0000542 J J3	NA	0.0000686 B J	NA	>S
VOCs	Acetone	ND	ND	ND	NA	ND J4	NA	NE
	Acrolein	ND J4	ND J4	ND J4	NA	ND J4	NA	NE
	Acrylonitrile	ND	ND	ND	NA	ND	NA	0.25
	Benzene	ND	ND	ND	NA	ND	NA	1.8
	Bromobenzene	ND	ND	ND	NA	ND	NA	NE
	Bromodichloromethane	ND	ND	ND	NA	ND	NA	0.45
	Bromoform	ND	ND	ND	NA	ND	NA	14
	Bromomethane	ND J3	ND	ND J3	NA	ND	NA	1.2
	N-butylbenzene	ND	ND	ND	NA	ND	NA	NE
	Sec-butylbenzene	ND	ND	ND	NA	ND	NA	NE
	Tert-Butylbenzene	ND	ND	ND	NA	ND	NA	NE
	Carbon tetrachloride	ND	ND	ND	NA	ND	NA	1.8
	Chlorobenzene	ND	ND	ND	NA	ND	NA	10
	Chlorodibromomethane	ND	ND	ND	NA	ND	NA	0.61
	Chloroethane	ND J3	ND	ND J3	NA	ND J4	NA	2,400
	Chloroform	ND	ND	ND	NA	ND	NA	0.72
	Chloromethane	ND J3 J4	ND	ND J3 J4	NA	ND	NA	22
	2-Chlorotoluene	ND	ND	ND	NA	ND	NA	NE
	4-Chlorotoluene	ND	ND	ND	NA	ND	NA	NE
	1,2-dibromo-3-chloroprop	ND	ND	ND	NA	ND	NA	NE
	1,2-dibromoethane	ND	ND	ND	NA	ND	NA	NE
	Dibromomethane	ND	ND	ND	NA	ND	NA	NE
	1,2-dichlorobenzene	ND	ND	ND	NA	ND	NA	37
	1,3-dichlorobenzene	ND	ND	ND	NA	ND	NA	NE
	1,4-dichlorobenzene	ND	ND	ND	NA	ND	NA	1.5
	Dichlorodifluoromethane	ND	ND	ND	NA	ND	NA	NE
	1,1-dichloroethane	ND	ND	ND	NA	ND	NA	10
	1,2-dichloroethane	ND	ND	ND	NA	ND	NA	NE
	1,1-dichloroethene	ND J3	ND	ND J3	NA	ND	NA	44
	Cis-1,2-dichloroethene	ND	ND	ND	NA	ND	NA	18
	Trans-1,2-dichloroethene	ND	ND	ND	NA	ND	NA	180
	1,2-dichloropropane	ND	ND	ND	NA	ND	NA	NE
	1,1-dichloropropene	ND	ND	ND	NA	ND	NA	NE
	1,3-dichloropropane	ND	ND	ND	NA	ND	NA	NE
	Cis-1,3-dichloropropene	ND	ND	ND	NA	ND	NA	NE
	Trans-1,3-dichloropropene	ND	ND	ND	NA	ND	NA	NE
	2,2-dichloropropane	ND J3	ND	ND J3	NA	ND	NA	NE
	Di-isopropyl ether	ND	ND	ND	NA	ND	NA	NE
	Ethylbenzene	ND	ND	ND	NA	ND	NA	4.5
	Hexachloro-1,3-butadiene	ND	ND	ND	NA	ND	NA	NE
	Isopropylbenzene	ND	ND	ND	NA	ND	NA	51
	P-isopropyltoluene	ND	ND	ND	NA	ND	NA	NE
	2-butanone (Mek)	ND	ND	ND	NA	ND	NA	NE
	Methylene chloride	ND	ND	ND	NA	ND	NA	NE
	4-methyl-2-pentanone (Mi	ND	ND	ND	NA	ND	NA	NE
	Methyl tert-butyl ether	ND	ND	ND	NA	ND	NA	63
	Naphthalene	ND	ND	0.0249	NA	ND	NA	0.5
	N-propylbenzene	ND	ND	0.000686 J	NA	ND	NA	NE
	Styrene	ND	ND	ND	NA	ND	NA	170
	1,1,1,2-tetrachloroethane	ND	ND	ND	NA	ND	NA	NE
	1,1,2,2-tetrachloroethane	ND	ND	ND	NA	ND	NA	NE
	1,1,2-trichlorotrifluoroetha	ND J3	ND	ND J3	NA	ND	NA	>S
	Tetrachloroethene	ND	ND	ND	NA	ND	NA	6
	Toluene	ND	ND	ND	NA	ND	NA	220
	1,2,3-trichlorobenzene	ND	ND	ND	NA	ND	NA	NE

Table 21: SUMMARY OF BOILER AND POWERHOUSE GROUNDWATER CHEMICAL DATA

Compound		Concentration (mg/L)						
		Boiler and Powerhouse Groundwater Samples						DEQ RBCs for Groundwater in Excavation
		BP-102-W	BP-109-W	BP-119-W	BP-121-W	BP-187-W	BP-202-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	ND	ND	NA	ND	NA	NE
	1,1,1-trichloroethane	ND	ND	ND	NA	ND	NA	1,100
	1,1,2-trichloroethane	ND	ND	ND	NA	ND	NA	0.049
	Trichloroethene	ND	ND	ND	NA	ND	NA	0.43
	Trichlorofluoromethane	ND J3	ND	ND J3	NA	ND	NA	160
	1,2,3-trichloropropane	ND	ND	ND	NA	ND	NA	NE
	1,2,4-trimethylbenzene	ND	ND	ND	NA	ND	NA	6
	1,2,3-trimethylbenzene	ND	ND	ND	NA	ND	NA	NE
	1,3,5-trimethylbenzene	ND	ND	ND	NA	ND	NA	8
	Vinyl chloride	ND J3 J4	ND	ND J3 J4	NA	ND	NA	0.96
	Xylenes, total	ND	ND	ND	NA	ND	NA	23
PAHs	Anthracene	ND	ND T8	0.000436	ND	ND	ND	>S
	Acenaphthene	ND	ND T8	0.00439	ND	ND	ND	>S
	Acenaphthylene	ND	ND T8	ND	ND	ND	ND	NE
	Benzo(a)anthracene	ND	ND T8	ND	ND	ND	ND	>S
	Benzo(a)pyrene	ND	ND T8	ND	ND	ND	ND	>S
	Benzo(b)fluoranthene	0.0000068 B J	0.00000535 J T8	0.000014 B J	ND	ND	ND	>S
	Benzo(g,h,i)perylene	0.00000662 B J	0.00000313 J T8	0.000026 B J	ND	ND	0.00000589 B J	NE
	Benzo(k)fluoranthene	ND	ND T8	ND	ND	ND	ND	>S
	Chrysene	ND	ND T8	ND	ND	ND	ND	>S
	Dibenz(a,h)anthracene	ND	ND T8	ND	ND	ND	ND	>S
	Fluoranthene	ND	ND T8	ND	ND	ND	ND	>S
	Fluorene	ND	ND T8	0.00345	ND	ND	ND	>S
	Indeno(1,2,3-cd)pyrene	ND	ND T8	ND	ND	ND	ND	>S
	Naphthalene	0.0000978 B J	ND T8	0.0423	0.0000872 J	0.0000305 B J	0.0000552 B J	0.5
	Phenanthrene	ND	ND T8	0.0041	ND	ND	ND	NE
	Pyrene	ND	ND T8	0.000159 J	ND	ND	ND	>S
	1-methylnaphthalene	ND	ND T8	0.103	0.000037 J	ND	ND	NE
	2-methylnaphthalene	ND	ND T8	0.0955	0.0000355 J	ND	ND	NE
	2-chloronaphthalene	ND	ND T8	ND	ND	ND	ND	NE
Diesel-Range Organics		0.0428 J	NA	1.34	NA	0.0577 J	0.0854 J	>S
Residual-Range Organics		ND	NA	1.25	NA	0.148 J	0.272	>S
Gasoline-Range Organics		ND	NA	0.0929 J	NA	ND	NA	14

Notes:

ND: Not detected at concentration greater than method detection limit.
NA: Compound not analyzed for this sample.
B: The same analyte is found in the associated blank.
J: The identification of the analyte is acceptable; the reported value is an estimate.
J3: The associated batch QC was outside the established quality control range for precision.
J4: The associated batch QC was outside the established quality control range for accuracy
NE: Value not established.
T8: Sample(s) received past/too close to holding time expiration.
>S: The groundwater Risk-Based Concentration exceeds the solubility limit.
Bold: Value exceeds the RBC for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.

Table 22: SUMMARY OF DEBARKER AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)														
		Debarker Area Soil Samples												DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		DB-159-7	DB-161-13	DB-161-30	DB-162-10	DB-162-21	DB-163-11	DB-165-10	DB-166-11	DB-169-12	DB-169-16	DB-170-13	DB-199-11	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Arsenic	NA	NA	NA	**3.75**	NA	NA	NA	NA	NA	NA	NA	**3.87**	1.9	15	420
	Beryllium	NA	NA	NA	0.122 J	NA	NA	NA	NA	NA	NA	NA	0.104 J	2,300	700	19,000
	Cadmium	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	1,100	350	9,700
	Chromium	NA	NA	NA	6.28	NA	NA	NA	NA	NA	NA	NA	**7.46**	6.3	49	1400
	Copper	NA	NA	NA	0.984 J	NA	NA	NA	NA	NA	NA	NA	ND	47,000	14,000	390,000
	Lead	NA	NA	NA	1.13	NA	NA	NA	NA	NA	NA	NA	1.48	800	800	800
	Nickel	NA	NA	NA	3.63	NA	NA	NA	NA	NA	NA	NA	3.88	22,000	7,000	190,000
	Selenium	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Silver	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	5,800	1,800	49,000
	Thallium	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Zinc	NA	NA	NA	7.89	NA	NA	NA	NA	NA	NA	NA	8.18	NE	NE	NE
	Mercury	NA	NA	NA	0.0352 J3	NA	NA	NA	NA	NA	NA	NA	0.00717 J	350	110	2,900
	Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	40	1,100
	Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	37	380	11,000
	Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	15	230	6,300
	Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	260	2,700	74,000
	Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	750	370	10,000
	N-butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Sec-butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND J4	NE	NE	NE
	Tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	34	320	8,900
	Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	8,700	4,700	130,000
	Chlorodibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	17	210	5,800
	Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	26	410	11,000
	Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	25,000	25,000	700,000
	2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	4-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,2-dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.73	9	250
	Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,2-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,4-dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	64	1,300	36,000
	Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE

Table 22: SUMMARY OF DEBARKER AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)														
		Debarker Area Soil Samples												DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		DB-159-7	DB-161-13	DB-161-30	DB-162-10	DB-162-21	DB-163-11	DB-165-10	DB-166-11	DB-169-12	DB-169-16	DB-170-13	DB-199-11	Occupational	Construction Worker	Excavation Worker
VOCs	1,1-dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	260	3,200	89,000
	1,2-dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,1-dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	23,000	7,100	200,000
	1,2-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,1-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,3-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	2,2-dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Di-isopropyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND J4	57,000	27,000	750,000
	P-isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	2-butanone (Mek)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Methyl tert-butyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1,100	12,000	320,000
	Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	23	580	16,000
	N-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1,000	1,800	50,000
	Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,1,1-trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	26	54	1,500
	Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	51	130	3,700
	Trichlorofluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,2,4-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND J4	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NE	NE	NE
	1,3,5-trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND J4	6,900	6,900	81,000

Table 22: SUMMARY OF DEBARKER AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)														
		Debarker Area Soil Samples												DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		DB-159-7	DB-161-13	DB-161-30	DB-162-10	DB-162-21	DB-163-11	DB-165-10	DB-166-11	DB-169-12	DB-169-16	DB-170-13	DB-199-11	Occupational	Construction Worker	Excavation Worker
	Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	4.4	34	950
	Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	25,000	20,000	560,000
PAHs	Anthracene	ND	0.0014 J	0.00082 J	0.288	ND	ND	ND	ND	0.00338 J	ND	ND	ND	350,000	110,000	>Max
	Acenaphthene	ND	0.00681 J	0.00247 J	0.0372	ND	0.00077 J	0.00253	0.00238 J	0.00439 J	0.00190 J	ND	ND	70,000	21,000	590,000
	Acenaphthylene	ND	ND	ND	0.0316	ND	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Benzo(a)anthracene	ND	ND	ND	0.0317	0.00077 J	ND	ND	0.00235 J	ND	ND	ND	ND	21	170	4,800
	Benzo(a)pyrene	ND	ND	ND	0.201	0.00084 J	ND	ND	ND	ND	ND	ND	ND	2.1	17	490
	Benzo(b)fluoranthene	0.00784 J	ND	ND	0.0471	0.00085 J	ND	ND	ND	ND	ND	ND	ND	21	170	4,900
	Benzo(g,h,i)perylene	ND	ND	ND	0.00998	0.00102 J	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Benzo(k)fluoranthene	ND	ND	ND	0.0527	ND	ND	ND	ND	ND	ND	ND	ND	210	1,700	49,000
	Chrysene	ND	ND	ND	0.123	0.0072 J	ND	ND	ND	ND	ND	ND	ND	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	17	490
	Fluoranthene	0.0295 J	0.00104 J	0.00271 J	0.0459	ND	ND	ND	0.00106 J	0.00219 J	ND	ND	ND	30,000	10,000	280,000
	Fluorene	ND	ND	ND	0.111	ND	ND	ND	ND	ND	ND	ND	ND	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	ND	ND	ND	0.00203 J	ND	ND	ND	ND	ND	ND	ND	ND	21	170	4,900
	Naphthalene	ND	ND	0.00288 J	0.0108 J	ND	ND	0.00233 J	ND	0.00273 J	ND	ND	ND	23	580	16,000
	Phenanthrene	0.0074 J	ND	0.00352 J	0.510	ND	0.00086 J	0.0011 J	0.000795 J	0.00301 J	ND	ND	ND	NE	NE	NE
	Pyrene	0.00746 J	ND	0.0013 J	0.0979	ND	ND	0.00073 J	ND	0.00146 J	ND	ND	ND	23,000	7,500	210,000
	1-methylnaphthalene	ND	ND	ND	0.0671	ND	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	2-methylnaphthalene	ND	ND	ND	0.00496 J	ND	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	2-chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE	NE	NE
	Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.59	4.9	140
	Diesel-Range Organics	NA	NA	NA	1,480	ND	ND	NA	1.6 J	ND	ND	ND	ND	14,000	4,600	>Max
	Residual-Range Organics	NA	NA	NA	**6,130**	ND	26	NA	17.3	4.15	ND J3	ND	ND	14,000	4,600	>Max
	Gasoline-Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

Table 23: SUMMARY OF DEBARKER GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)			
		Debarker Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		DB-162-W	DB-163-W	DB-199-W	Construction & Excavation Worker
Metals	Antimony	NA	ND	NA	NE
	Arsenic	NA	0.0125	NA	6.3
	Beryllium	NA	ND	ND	270
	Cadmium	NA	ND	ND	130
	Chromium	NA	0.119	0.0396	9.4
	Copper	NA	0.0304	0.0194	5,400
	Lead	NA	0.0119	0.00701	>S
	Nickel	NA	0.0421	0.0473	>S
	Selenium	NA	ND	ND	NE
	Silver	NA	ND	ND	1,100
	Thallium	NA	0.000207 J	NA	ND
	Zinc	NA	0.0682	0.0368 J	NE
	Mercury	NA	0.0000958 B J	0.0000602 J	>S
VOCs	Acetone	ND J3	ND J4	ND	NE
	Acrolein	ND	ND J4	ND J4	NE
	Acrylonitrile	ND	ND	ND	0.25
	Benzene	ND	ND	ND	1.8
	Bromobenzene	ND	ND	ND	NE
	Bromodichloromethane	ND	ND	ND	0.45
	Bromoform	ND	ND	ND	14
	Bromomethane	ND	ND	ND	1.2
	N-butylbenzene	ND	ND	ND	NE
	Sec-butylbenzene	ND	ND	ND	NE
	Tert-Butylbenzene	ND	ND	ND	NE
	Carbon tetrachloride	ND	ND	ND	1.8
	Chlorobenzene	ND	ND	ND	10
	Chlorodibromomethane	ND	ND	ND	0.61
	Chloroethane	ND	ND J4	ND	2,400
	Chloroform	ND	ND	ND	0.72
	Chloromethane	ND	ND	ND	22
	2-Chlorotoluene	ND	ND	ND	NE
	4-Chlorotoluene	ND	ND	ND	NE
	1,2-dibromo-3-chloropropane	ND	ND	ND	NE
	1,2-dibromoethane	ND	ND	ND	NE
	Dibromomethane	ND	ND	ND	NE
	1,2-dichlorobenzene	ND	ND	ND	37
	1,3-dichlorobenzene	ND	ND	ND	NE
	1,4-dichlorobenzene	ND	ND	ND	1.5
	Dichlorodifluoromethane	ND	ND	ND	NE
	1,1-dichloroethane	ND	ND	ND	10
	1,2-dichloroethane	ND	ND	ND	NE
	1,1-dichloroethene	ND	ND	ND	44
	Cis-1,2-dichloroethene	ND	ND	ND	18
	Trans-1,2-dichloroethene	ND	ND	ND	180
	1,2-dichloropropane	ND	ND	ND	NE
	1,1-dichloropropene	ND	ND	ND	NE
	1,3-dichloropropane	ND	ND	ND	NE
	Cis-1,3-dichloropropene	ND	ND	ND	NE
	Trans-1,3-dichloropropene	ND	ND	ND	NE
	2,2-dichloropropane	ND	ND	ND	NE
	Di-isopropyl ether	ND	ND	ND	NE
	Ethylbenzene	ND	ND	ND	4.5
	Hexachloro-1,3-butadiene	ND	ND	ND	NE
	Isopropylbenzene	ND	ND	ND	51
	P-isopropyltoluene	ND	ND	ND	NE
	2-butanone (Mek)	ND	ND	ND	NE
	Methylene chloride	ND	ND	ND	NE
	4-methyl-2-pentanone (Mibk)	ND	ND	ND	NE
	Methyl tert-butyl ether	ND	ND	ND	63
	Naphthalene	ND	ND	ND	0.5
	N-propylbenzene	ND	ND	ND	NE
	Styrene	ND	ND	ND	170
	1,1,1,2-tetrachloroethane	ND	ND	ND	NE
	1,1,2,2-tetrachloroethane	ND	ND	ND	NE
	1,1,2-trichlorotrifluoroethane	ND	ND	ND	>S
	Tetrachloroethene	ND	ND	ND	6
	Toluene	ND	ND	ND	220
	1,2,3-trichlorobenzene	ND	ND	ND	NE

Table 23: SUMMARY OF DEBARKER GROUNDWATER CHEMICAL DATA

	Compound	Concentration (mg/L)			
		Debarker Groundwater Samples			DEQ RBCs for Groundwater in Excavation
		DB-162-W	DB-163-W	DB-199-W	Construction & Excavation Worker
	1,2,4-trichlorobenzene	ND	ND	ND	NE
	1,1,1-trichloroethane	ND	ND	ND	1,100
	1,1,2-trichloroethane	ND	ND	ND	0.049
	Trichloroethene	ND	ND	ND	0.43
	Trichlorofluoromethane	ND	ND	ND	160
	1,2,3-trichloropropane	ND	ND	ND	NE
	1,2,4-trimethylbenzene	ND	ND	ND	6
	1,2,3-trimethylbenzene	0.000369 J	ND	ND	NE
	1,3,5-trimethylbenzene	ND	ND	ND	8
	Vinyl chloride	ND	ND	ND	0.96
	Xylenes, total	ND	ND	ND	23
PAHs	Anthracene	0.0000575	ND	ND	>S
	Acenaphthene	0.000205	0.00466	ND	>S
	Acenaphthylene	ND	ND	ND	NE
	Benzo(a)anthracene	ND	ND	ND	>S
	Benzo(a)pyrene	ND	ND	ND	>S
	Benzo(b)fluoranthene	ND	ND	ND	>S
	Benzo(g,h,i)perylene	ND	ND	0.00000504 J B	NE
	Benzo(k)fluoranthene	ND	ND	ND	>S
	Chrysene	ND	ND	ND	>S
	Dibenz(a,h)anthracene	ND J3	ND	0.00000462 J	>S
	Fluoranthene	0.0000182 J	ND	ND	>S
	Fluorene	0.000178	0.0000207 J	ND	>S
	Indeno(1,2,3-cd)pyrene	ND J3	ND	ND	>S
	Naphthalene	0.0000266 J	0.000065 B J	0.0000462 J B	0.5
	Phenanthrene	0.000325	0.0000245 J	ND	NE
	Pyrene	0.0000154 J	ND	ND	>S
	1-methylnaphthalene	0.000206 J	0.00000952 J	ND	NE
	2-methylnaphthalene	0.0000266 J	0.0000131 J	ND	NE
	2-chloronaphthalene	ND	ND	ND	NE
	Diesel-Range Organics	NA	0.0494 J	NA	>S
	Residual-Range Organics	NA	ND	NA	>S
	Gasoline-Range Organics	NA	0.0324 B J	ND	14

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

J: The identification of the analyte is acceptable; the reported value is an estimate.

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.

Table 24: SUMMARY OF FIRE SUPPRESSION DIESEL ABOVE GROUND STORAGE TANK AREA SOIL CHEMICAL DATA

	Compound	Concentration (mg/kg)			
		Fire Suppression AST Soil Sample	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		FSDAST	Occupational	Construction Worker	Excavation Worker
Metals	Antimony	4.55	NE	NE	NE
	Arsenic	**3.07**	1.9	15	420
	Beryllium	0.0899 J	2,300	700	19,000
	Cadmium	1.01	1,100	350	9,700
	Chromium	**743**	6.3	49	1400
	Copper	126	47,000	14,000	390,000
	Lead	202	800	800	800
	Nickel	346	22,000	7,000	190,000
	Selenium	ND	NE	NE	NE
	Silver	ND	5,800	1,800	49,000
	Thallium	ND	NE	NE	NE
	Zinc	543	NE	NE	NE
	Mercury	0.0644	350	110	2,900
VOCs	Acetone	NA	NE	NE	NE
	Acrylonitrile	NA	4	40	1,100
	Benzene	NA	37	380	11,000
	Bromobenzene	NA	NE	NE	NE
	Bromodichloromethane	NA	15	230	6,300
	Bromoform	NA	260	2,700	74,000
	Bromomethane	NA	750	370	10,000
	N-butylbenzene	NA	NE	NE	NE
	Sec-butylbenzene	NA	NE	NE	NE
	Tert-Butylbenzene	NA	NE	NE	NE
	Carbon tetrachloride	NA	34	320	8,900
	Chlorobenzene	NA	8,700	4,700	130,000
	Chlorodibromomethane	NA	17	210	5,800
	Chloroethane	NA	NE	NE	NE
	Chloroform	NA	26	410	11,000
	Chloromethane	NA	25,000	25,000	700,000
	2-Chlorotoluene	NA	NE	NE	NE
	4-Chlorotoluene	NA	NE	NE	NE
	1,2-dibromo-3-chloropropane	NA	NE	NE	NE
	1,2-dibromoethane	NA	0.73	9	250
	Dibromomethane	NA	NE	NE	NE
	1,2-dichlorobenzene	NA	36,000	20,000	560,000
	1,3-dichlorobenzene	NA	NE	NE	NE
	1,4-dichlorobenzene	NA	64	1,300	36,000
	Dichlorodifluoromethane	NA	NE	NE	NE
	1,1-dichloroethane	NA	260	3,200	89,000
	1,2-dichloroethane	NA	NE	NE	NE
	1,1-dichloroethene	NA	29,000	13,000	370,000
	Cis-1,2-dichloroethene	NA	2,300	710	20,000
	Trans-1,2-dichloroethene	NA	23,000	7,100	200,000
	1,2-dichloropropane	NA	NE	NE	NE
	1,1-dichloropropene	NA	NE	NE	NE
	1,3-dichloropropane	NA	NE	NE	NE
	Cis-1,3-dichloropropene	NA	NE	NE	NE
	Trans-1,3-dichloropropene	NA	NE	NE	NE
	2,2-dichloropropane	NA	NE	NE	NE
	Di-isopropyl ether	NA	NE	NE	NE
	Ethylbenzene	NA	150	1,700	49,000
	Hexachloro-1,3-butadiene	NA	NE	NE	NE
	Isopropylbenzene	NA	57,000	27,000	750,000
	P-isopropyltoluene	NA	NE	NE	NE
	2-butanone (Mek)	NA	NE	NE	NE
	Methylene chloride	NA	NE	NE	NE
	4-methyl-2-pentanone (Mibk)	NA	NE	NE	NE
	Methyl tert-butyl ether	NA	1,100	12,000	320,000
	Naphthalene	NA	23	580	16,000
	N-propylbenzene	NA	NE	NE	NE
	Styrene	NA	130,000	56,000	>Max
	1,1,1,2-tetrachloroethane	NA	NE	NE	NE
	1,1,2,2-tetrachloroethane	NA	NE	NE	NE
	1,1,2-trichlorotrifluoroethane	NA	NE	NE	NE
	Tetrachloroethene	NA	1,000	1,800	50,000
	Toluene	NA	88,000	28,000	770,000
	1,2,3-trichlorobenzene	NA	NE	NE	NE
	1,2,4-trichlorobenzene	NA	NE	NE	NE

Table 24: SUMMARY OF FIRE SUPPRESSION DIESEL ABOVE GROUND STORAGE TANK AREA SOIL CHEMICAL DATA

Compound		Concentration (mg/kg)			
		Fire Suppression AST Soil Sample	DEQ RBCs for Soil Ingestion, Dermal Contact, and Inhalation		
		FSDAST	Occupational	Construction Worker	Excavation Worker
	1,1,1-trichloroethane	NA	870,000	470,000	>Max
	1,1,2-trichloroethane	NA	26	54	1,500
	Trichloroethene	NA	51	130	3,700
	Trichlorofluoromethane	NA	130,000	69,000	>Max
	1,2,3-trichloropropane	NA	NE	NE	NE
	1,2,4-trimethylbenzene	NA	6,900	6,900	81,000
	1,2,3-trimethylbenzene	NA	NE	NE	NE
	1,3,5-trimethylbenzene	NA	6,900	6,900	81,000
	Vinyl chloride	NA	4.4	34	950
	Xylenes, total	NA	25,000	20,000	560,000
PAHs	Anthracene	0.0459 J	350,000	110,000	>Max
	Acenaphthene	0.0135 J	70,000	21,000	590,000
	Acenaphthylene	0.0177 J	NE	NE	NE
	Benzo(a)anthracene	0.0362 J	21	170	4,800
	Benzo(a)pyrene	0.00989 J	2.1	17	490
	Benzo(b)fluoranthene	0.0144 J	21	170	4,900
	Benzo(g,h,i)perylene	0.0109 J	NE	NE	NE
	Benzo(k)fluoranthene	ND	210	1,700	49,000
	Chrysene	0.0176 J	2,100	17,000	490,000
	Dibenz(a,h)anthracene	ND	2.1	17	490
	Fluoranthene	0.0755	30,000	10,000	280,000
	Fluorene	0.0257 J	47,000	14,000	390,000
	Indeno(1,2,3-cd)pyrene	0.0075 J	21	170	4,900
	Naphthalene	0.166 J	23	580	16,000
	Phenanthrene	0.177	NE	NE	NE
	Pyrene	0.127	23,000	7,500	210,000
	1-methylnaphthalene	0.0939 J	NE	NE	NE
	2-methylnaphthalene	0.248	NE	NE	NE
	2-chloronaphthalene	ND	NE	NE	NE
Total PCBs		NA	0.59	4.9	140
Diesel-Range Organics		701	14,000	4,600	>Max
Residual-Range Organics		361	14,000	4,600	>Max
Gasoline-Range Organics		NA	20,000	9,700	>Max

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is an estimate.

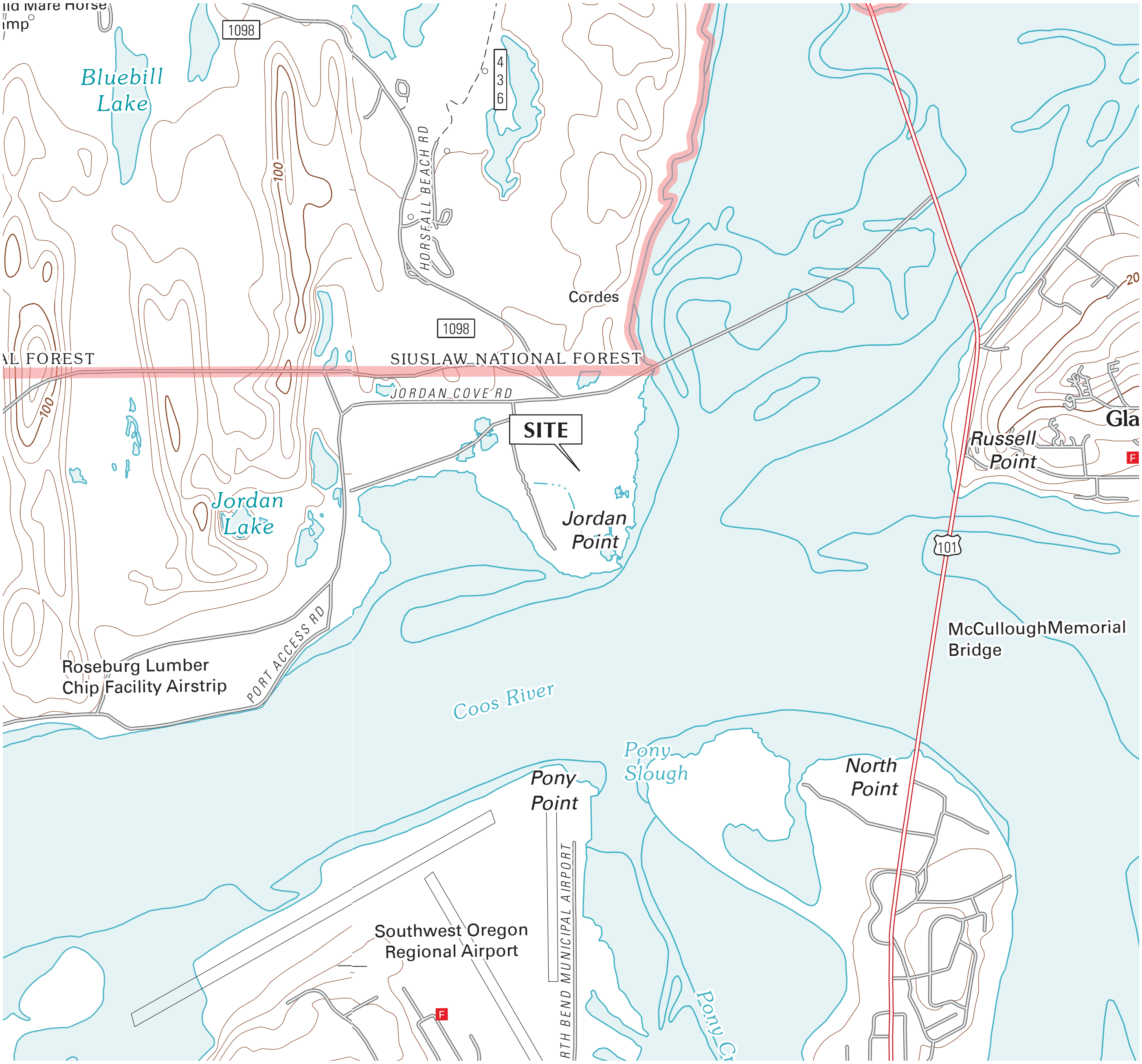
J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference.
The analytical results will be biased high. Below detection limit (BDL) results will

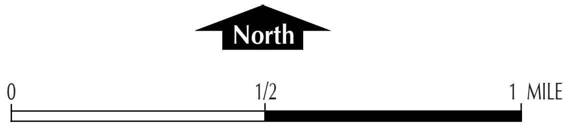
NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater
than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and
inhalation for the occupational receptor scenario for this compound.



USGS TOPOGRAPHIC MAPS
EMPIRE AND NORTH BEND, OREG. (2011)



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JORDAN COVE, LLC
DATA GAP INVESTIGATION

VICINITY MAP

JULY 2018 JOB NO. 5764-1195 FIG. 1

2014 NAIP AERIAL PHOTO

⊕ EXPLORATION LOCATION

North

0 250 500 FT

GRI

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DATA GAP INVESTIGATION

EXPLORATION LOCATIONS

JULY 2018 JOB NO. 5764-1195 FIG. 2

GRI

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DATA GAP INVESTIGATION

EXPLORATION LOCATIONS

(FUEL OIL RELEASE AREA)

JULY 2018 JOB NO. 5764-1195 FIG. 3

EXPLORATION LOCATION

◒ SOIL AND GROUNDWATER ANALYZED

⊕ GROUNDWATER SAMPLE ANALYZED

⊙ SOIL SAMPLE ANALYZED

• FIELD SCREENED : NO ANALYSIS

2014 NAIP AERIAL PHOTO

North

0 40 80 FT

GRI

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DATA GAP INVESTIGATION

EXPLORATION LOCATIONS
(MINERAL SPIRITS AND LOWERATORS)

JULY 2018 JOB NO. 5764-1195 FIG. 4

GRI

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EXPLORATION LOCATIONS

(TRUCK SCALES AND CARPENTER SHOP)

JULY 2018 JOB NO. 5764-1195 FIG. 5

EXPLORATION LOCATION

◒ SOIL AND GROUNDWATER ANALYZED

◕ GROUNDWATER SAMPLE ANALYZED

⊙ SOIL SAMPLE ANALYZED

• FIELD SCREENED : NO ANALYSIS

2014 NAIP AERIAL PHOTO

North

0 40 80 FT

GRI

JORDAN COVE, LLC
DATA GAP INVESTIGATION

EXPLORATION LOCATIONS

(CHIP TRUCK LIFT AND HOG FUEL LIFT)

JULY 2018 JOB NO. 5764-1195 FIG. 6

EXPLORATION LOCATION

- ◒ SOIL AND GROUNDWATER ANALYZED
- ◍ GROUNDWATER SAMPLE ANALYZED
- ● SOIL SAMPLE ANALYZED
- • FIELD SCREENED : NO ANALYSIS

2014 NAIP AERIAL PHOTO

North

0 75 150 FT

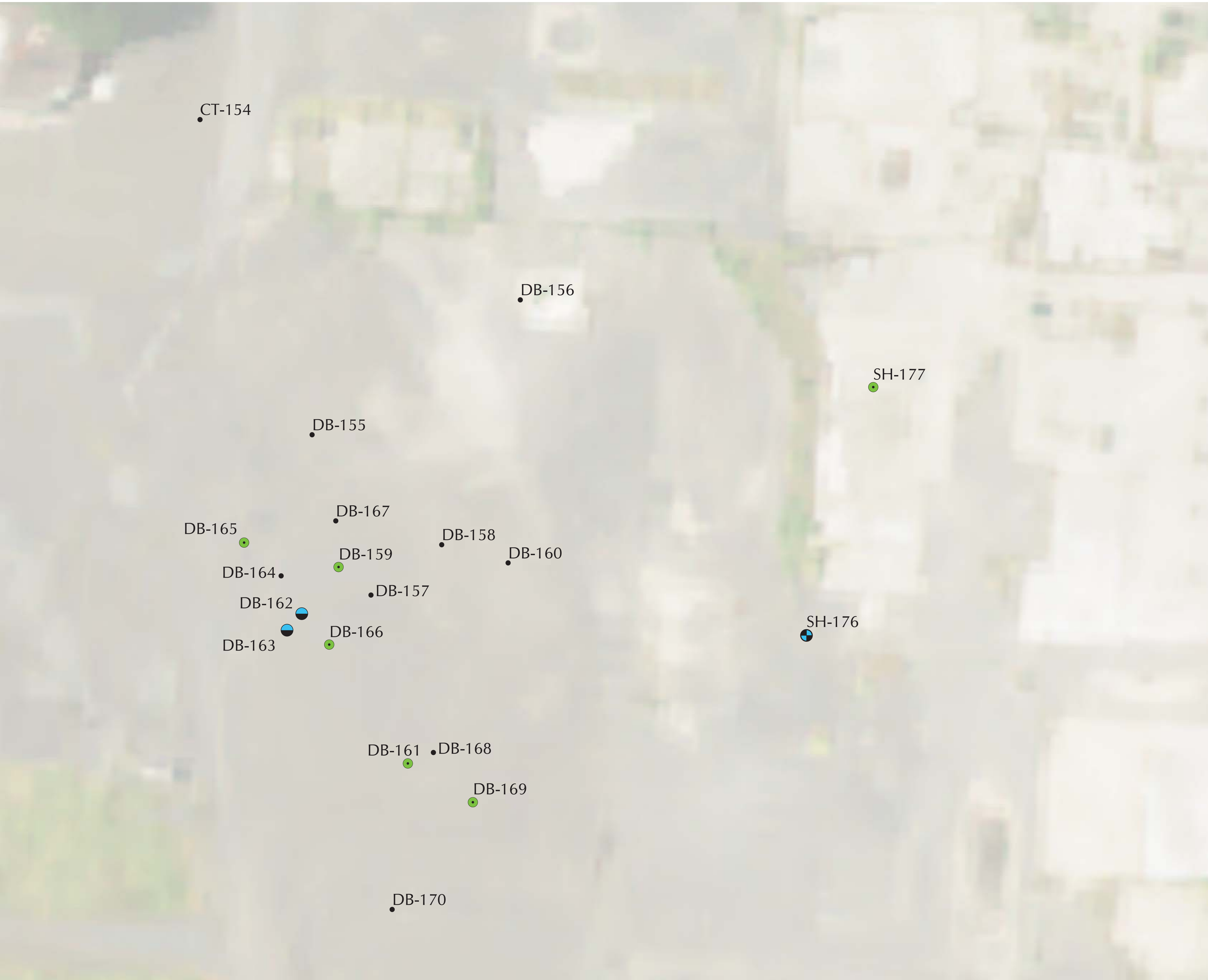
GRI

JORDAN COVE, LLC
DATA GAP INVESTIGATION

EXPLORATION LOCATIONS

(JORDAN POINT AND STREAM CHANNEL AREA)

JULY 2018 JOB NO. 5764-1195 FIG. 7



EXPLORATION LOCATION

- ◒ SOIL AND GROUNDWATER ANALYZED
- ◍ GROUNDWATER SAMPLE ANALYZED
- ⊙ SOIL SAMPLE ANALYZED
- • FIELD SCREENED : NO ANALYSIS

2014 NAIP AERIAL PHOTO

North

0 40 80 FT

GRI

JORDAN COVE, LLC
DATA GAP INVESTIGATION

EXPLORATION LOCATIONS

(FORMER SHOPS AND DEBARKER)

JULY 2018 JOB NO. 5764-1195 FIG. 8

EXPLORATION LOCATION

◒ SOIL AND GROUNDWATER ANALYZED

⊕ GROUNDWATER SAMPLE ANALYZED

⊙ SOIL SAMPLE ANALYZED

• FIELD SCREENED : NO ANALYSIS

2014 NAIP AERIAL PHOTO

North

0 45 90 FT

GRI

JORDAN COVE, LLC
DATA GAP INVESTIGATION

EXPLORATION LOCATIONS
(MOBILE SHOPS)

JULY 2018 JOB NO. 5764-1195 FIG. 9

GRI

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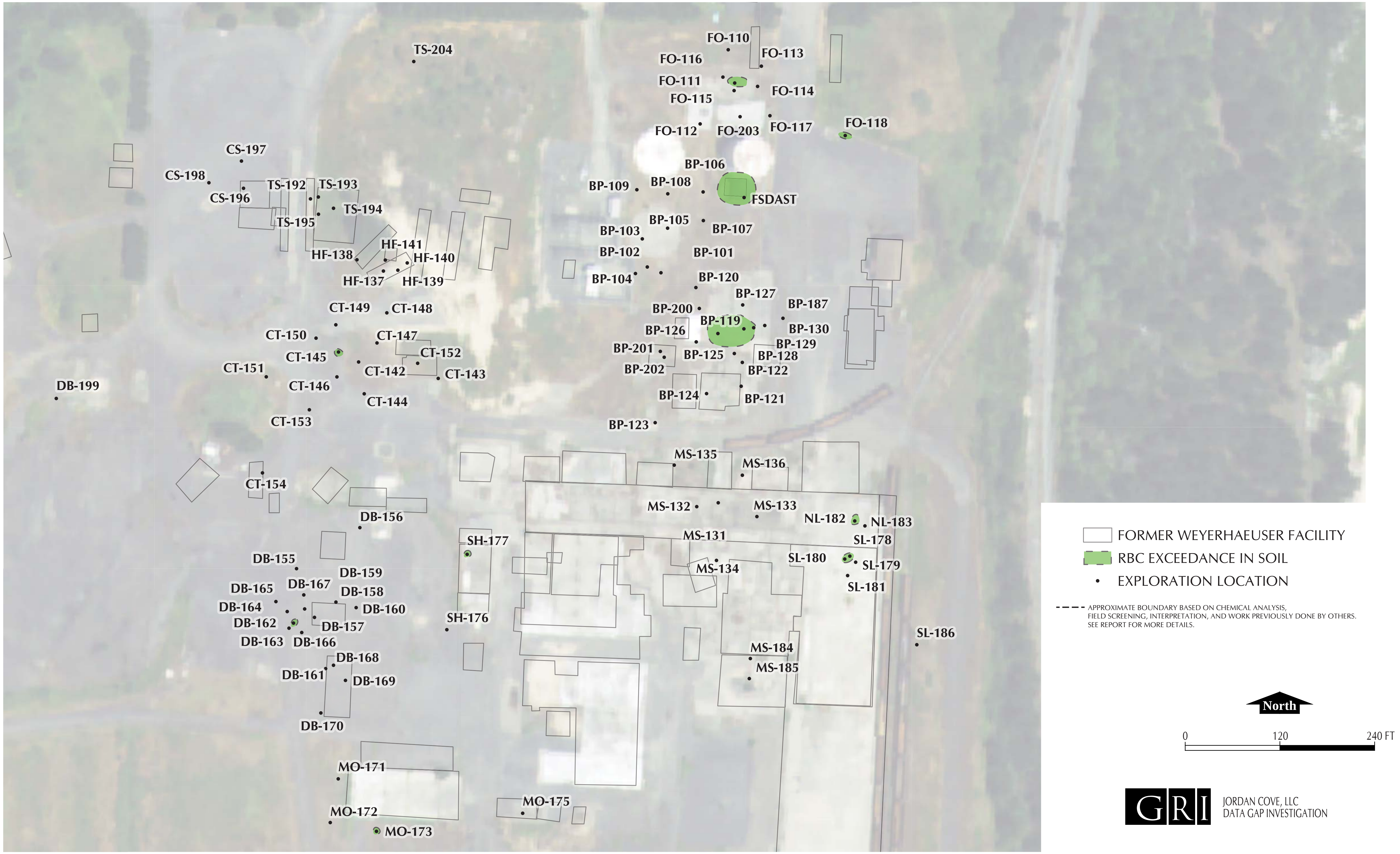
DATA GAP INVESTIGATION

EXPLORATION LOCATIONS

(BOILER AND POWERHOUSE)

JULY 2018 JOB NO. 5764-1195 FIG. 10



GRI

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DATA GAP INVESTIGATION

RBC EXCEEDANCE IN SOIL
NORTH AREA

JULY 2018 JOB NO. 5764-1195 FIG. 11

GRI

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RBC EXCEEDANCE IN SOIL
SOUTH AREA

JULY 2018 JOB NO. 5764-1195 FIG. 12

APPENDIX A

Boring Logs

BORING AND TEST PIT LOG LEGEND

SOIL SYMBOLS

Symbol	Typical Description
⁘	LANDSCAPE MATERIALS
▩	FILL
⬭	GRAVEL; clean to some silt, clay, and sand
⬭	Sandy GRAVEL; clean to some silt and clay
⬭	Silty GRAVEL; up to some clay and sand
⬭	Clayey GRAVEL; up to some silt and sand
░	SAND; clean to some silt, clay, and gravel
░	Gravelly SAND; clean to some silt and clay
▒	Silty SAND; up to some clay and gravel
▒	Clayey SAND; up to some silt and gravel
▥	SILT; up to some clay, sand, and gravel
▥	Gravelly SILT; up to some clay and sand
▥	Sandy SILT; up to some clay and gravel
▥	Clayey SILT; up to some sand and gravel
▨	CLAY; up to some silt, sand, and gravel
▨	Gravelly CLAY; up to some silt and sand
▨	Sandy CLAY; up to some silt and gravel
▨	Silty CLAY; up to some sand and gravel
≋	PEAT

BEDROCK SYMBOLS

Symbol	Typical Description
⊞	BASALT
▤	MUDSTONE
▤	SILTSTONE
▤	SANDSTONE

SURFACE MATERIAL SYMBOLS

Symbol	Typical Description
■	Asphalt concrete PAVEMENT
■	Portland cement concrete PAVEMENT
⬭	Crushed rock BASE COURSE

SAMPLER SYMBOLS

Symbol	Sampler Description
I	2.0-in. O.D. split-spoon sampler and Standard Penetration Test with recovery (ASTM D1586)
▮	Shelby tube sampler with recovery (ASTM D1587)
▮	3.0-in. O.D. split-spoon sampler with recovery (ASTM D3550)
☒	Grab Sample
▯	Rock core sample interval
▮	Sonic core sample interval
▮	Geoprobe sample interval

INSTALLATION SYMBOLS

Symbol	Symbol Description
▥	Flush-mount monument set in concrete
▥	Concrete, well casing shown where applicable
▨	Bentonite seal, well casing shown where applicable
░	Filter pack, machine-slotted well casing shown where applicable
▥	Grout, vibrating-wire transducer cable shown where applicable
P	Vibrating-wire pressure transducer
▥	1-in.-diameter solid PVC
▥	1-in.-diameter hand-slotted PVC
▥	Grout, inclinometer casing shown where applicable

FIELD MEASUREMENTS

Symbol	Typical Description
▽	Groundwater level during drilling and date measured
▼	Groundwater level after drilling and date measured
▨	Rock core recovery (%)
▨	Rock quality designation (RQD, %)

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace to some gravel, trace silt, gray-brown, fine to coarse grained, contains trace organics ---gravel absent, brown, fine to medium grained below 1.5 ft					
							▽1.8 ft (1/29/2018)
					Run 1		Run 1 recovery 36 in.
5				0			
		---gray below 6.75 ft					
					Run 2 BP-101-7 ☒		Run 2 recovery 60 in. Slight sheen between depths of 7 to 12 ft
10				0			
					Run 3		Run 3 recovery 60 in.
15		---fine grained below 15 ft		0			
					Run 4		Run 4 recovery 60 in.
20				0			
					Run 5		Run 5 recovery 56 in.
25				0			
					Run 6		Run 6 recovery 60 in.
		---light gray below 28.5 ft					
					BP-101-30 ☒		
30				0			
					Run 7		Run 7 recovery 60 in.
35		(1/29/2018)	35.0				
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 1/29/18 **Coordinates:** 43.43561° N -124.23968° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-101

JULY 2018 JOB NO. 5764-1195 FIG. 1A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	▨	SAND, light brown, fine to medium grained, contains gravel to a depth of 3 in.					
					Run 1		▽2.2 ft (1/29/2018) Run 1 recovery 32 in.
5							
					Run 2		Run 2 recovery 48 in. Heavy sheen and slight odor between depths of 8 to 17 ft
		---gray below 8 ft		2.1			
10							
					Run 3 BP-102-12 ☒		Run 3 recovery 60 in.
15							
				0			
					Run 4		Run 4 recovery 60 in.
				0	BP-102-20 ☒		
20		(1/29/2018)	20.0				
25							
30							
35							
40					0		1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 1/29/18	**Coordinates:** 43.43563° N -124.23975° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-102

JULY 2018 JOB NO. 5764-1195 FIG. 2A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, light brown, fine grained					
					Run 1		∇1.9 ft (1/30/2018) Run 1 recovery 33 in.
5		---dark gray/discolored below 5 ft					
					Run 2		Run 2 recovery 54 in.
		gray to gray-brown, discoloration absent below 8 ft					
10							
		---gray to dark gray/discolored below 12.5 ft			Run 3		Run 2 recovery 60 in.
				0	BP-103-13		
		SILT, gray	14.0				
15		SAND, gray to gray-brown/discolored, fine grained	15.0				
		---discoloration absent below 16.5 ft					
					Run 4		Run 4 recovery 60 in.
20		(1/30/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/30/18
Coordinates: 43.43572° N -124.23978° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING BP-103

JULY 2018 JOB NO. 5764-1195 FIG. 3A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	▒	SAND, trace to some gravel, trace silt, gray-brown, fine to medium grained ---gravel absent, light brown, fine grained below 1 ft					
	▒				Run 1		∇2.4 ft (1/30/2018) Run 1 recovery 31 in.
5	▒						
	▒				Run 2		Run 2 recovery 42 in.
	▒	---dark gray to black, contains woody organics below 8 ft					
10	▒						Slight sheen between depths of 10 to 14 ft
	▒			0			
	▒				Run 3		Run 3 recovery 60 in.
	▒			0	BP-104-13 ☒		
15	▒						
	▒				Run 4		Run 4 recovery 60 in.
	▒				BP-104-20 ☒		
20		(1/30/2018)	20.0				
25							
30							
35							
40					0		1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/30/18
Coordinates: 43.4356° N -124.23981° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-104

JULY 2018 JOB NO. 5764-1195 FIG. 4A

DEPTH, FT	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	SAND, trace to some gravel, trace silt, gray-brown, fine grained ---brown, gravel absent below 0.5 ft					
				Run 1		∇2.3 ft (1/30/2018) Run 1 recovery 27 in.
5	---dark brown below 5 ft					
				Run 2		Run 2 recovery 52 in.
	---black below 8.5 ft					Moderate sheen between depths of 8.5 to 13.5 ft
10			0.6			
	---gray below 12.5 ft			Run 3		Run 3 recovery 60 in.
	SILT, gray	13.5				
15	SAND, gray, fine grained	14.5				
				Run 4		Run 4 recovery 60 in.
20	(1/30/2018)	20.0				
25						
30						
35						
40						

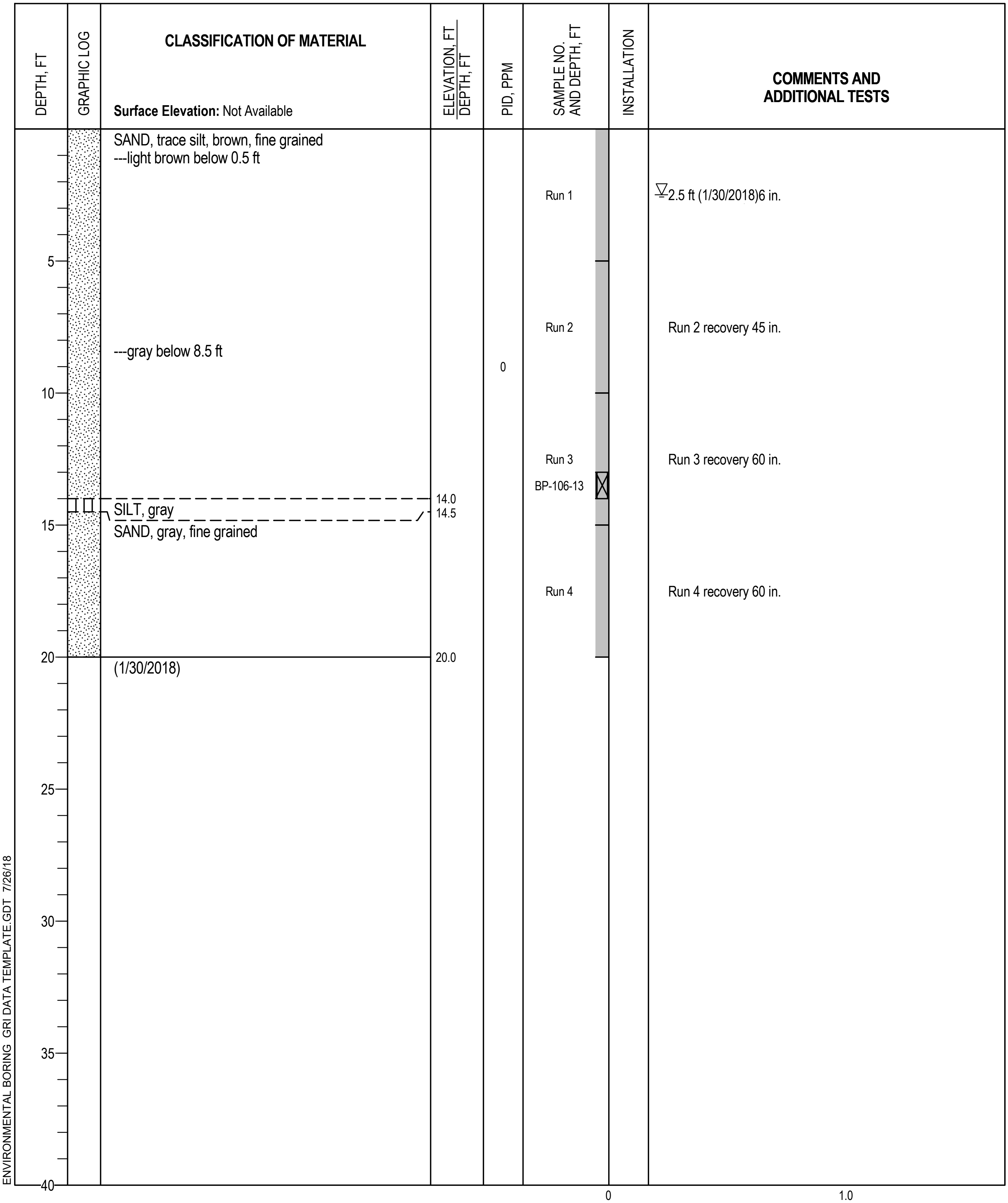
0 1.0

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/30/18
Coordinates: 43.43576° N -124.23966° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING BP-105

JULY 2018 JOB NO. 5764-1195 FIG. 5A



Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/30/18
Coordinates: 43.4359° N -124.2395° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-106

JULY 2018 JOB NO. 5764-1195 FIG. 6A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace to some silt and gravel, brown, fine grained ---brown to black, gravel absent, contains wood debris and organics below 1 ft ---light brown, wood debris and organics absent below 5 ft			Run 1		▽1.8 ft (1/30/2018) Run 1 recovery 36 in.
5							
		---gray below 7.5 ft			Run 2		Run 2 reocvery 52 in.
10							
					Run 3 BP-107-12		Run 3 reocvery 60 in.
		SILT, dark gray	13.0				
		SAND, gray, fine grained ---light gray below 16 ft	14.0				
15							
					Run 4		Run 4 recovery 60 in.
20		(1/30/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/30/18
Coordinates: 43.4358° N -124.23949° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-107

JULY 2018 JOB NO. 5764-1195 FIG. 7A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0		SAND, trace silt, brown to light brown, fine grained, contains organics ---light brown, organics absent below 0.5 ft			Run 1		∇2.5 ft (1/30/2018) Run 1 recovery 33 in
5		---black below 8 ft		0	Run 2		Run 2 recovery 60 in. Slight sheen between depths of 8.7 to 14.5 ft
10					Run 3 BP-108-13 ☒		Run 3 recovery 60 in.
15		SILT, gray	14.5				
		SAND, gray, fine grained	15.0		Run 4 BP-108-17 ☒		Run 4 recovery 60 in.
20		(1/30/2018)	20.0				
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 1/30/18	**Coordinates:** 43.43588° N -124.23967° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-108

JULY 2018 JOB NO. 5764-1195 FIG. 8A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	▨	SAND, trace silt, brown, fine grained, contains organics ---light brown, organics absent below 0.5 ft			Run 1		Run 1 recovery 36 in. ∇2.8 ft (1/30/2018)
5	▨						
	▨				Run 2		Run 2 recovery 50 in.
	▨	---gray below 8.5 ft					
10		(1/30/2018)	10.0				
15							
20							
25							
30							
35							
40							
					0		1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 1/30/18	**Coordinates:** 43.43589° N -124.23982° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-109

JULY 2018 JOB NO. 5764-1195 FIG. 9A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace to some silt, brown, fine grained ---light brown below 0.5 ft					
					Run 1		Run 1 recovery 36 in. ▽2.8 ft (1/30/2018)
5							
		---gray-brown, grades to gray with depth below 7 ft			Run 2		Run 2 recovery 51 in.
10							
					Run 3		Run 3 recovery 60 in.
		SILT, gray	13.5				
		SAND, gray, fine grained	14.2				
15		(1/30/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 1/30/18	**Coordinates:** 43.4364° N -124.23941° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

BORING FO-110

JULY 2018 JOB NO. 5764-1195 FIG. 10A

Surface Elevation: Not Available

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, some gravel, trace silt, brown to gray, fine to medium grained					
					Run 1		Run 1 recovery 35 in.
		---gravel absent, light brown, fine grained below 3 ft					
							∇3.5 ft (1/30/2018)
5							
					Run 2		Run 2 recovery 48 in.
		---gray-brown, contains wood debris below 8 ft					
				32.5	FO-111-8 ☒		Slight sheen and odor between depths of 8 to 10 ft
10							
					Run 3		Run 3 recovery 60 in.
		SILT, gray	14.0				
15		SAND, gray, fine grained	15.0				
					Run 4		Run 4 recovery 60 in.
20		(1/30/2018)	20.0				
25							
30							
35							
40							

0 1.0

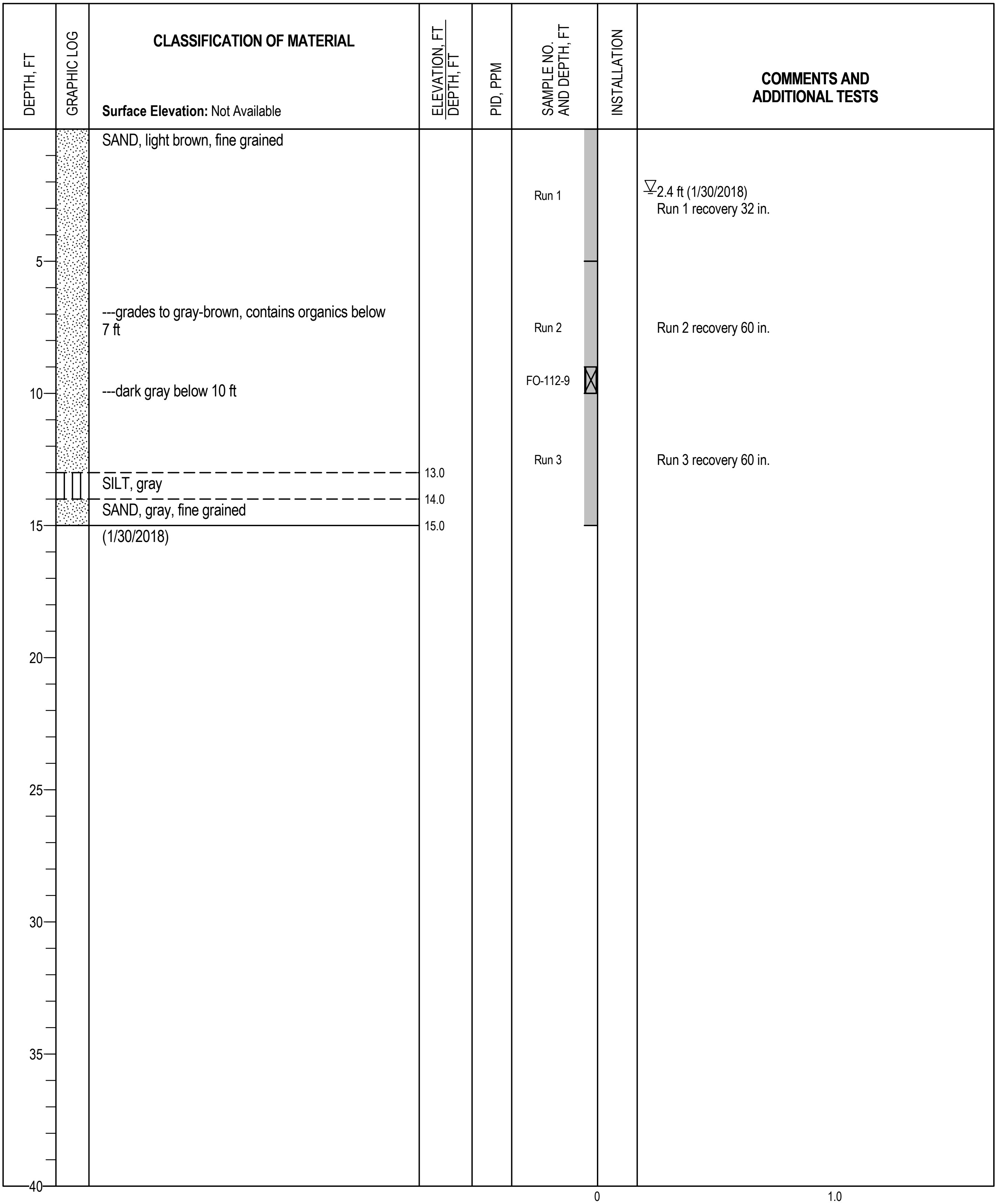
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/30/18
Coordinates: 43.43628° N -124.23937° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING FO-111

JULY 2018 JOB NO. 5764-1195 FIG. 11A



DEPTH, FT	GRAPHIC LOG	**CLASSIFICATION OF MATERIAL** **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	**COMMENTS AND ADDITIONAL TESTS**
		SAND, light brown, fine grained					
					Run 1		▽2.4 ft (1/30/2018) Run 1 recovery 32 in.
5							
		---grades to gray-brown, contains organics below 7 ft			Run 2		Run 2 recovery 60 in.
					FO-112-9 ☒		
10		---dark gray below 10 ft					
					Run 3		Run 3 recovery 60 in.
		SILT, gray	13.0				
		SAND, gray, fine grained	14.0				
15		(1/30/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 1/30/18	**Coordinates:** 43.43613° N -124.23953° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING FO-112

JULY 2018 JOB NO. 5764-1195 FIG. 12A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (11 in.)	0.9				
		SAND, trace to some gravel, trace silt, brown, fine to medium grained ---gravel absent, light brown, fine grained below 3 ft			Run 1		Run 1 recovery 36 in. ▽3.5 ft (1/30/2018)
5							
		---light gray-brown below 7.5 ft ---contains wood debris at 8 ft			Run 2 FO-113-8 ☒		Run 2 recovery 55 in.
10							
		---grades to silty material below 12.5 ft			Run 3		Run 3 recovery 60 in.
		SILT, gray	13.5				
		SAND, dark gray, fine grained	14.5				
15		(1/30/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation

Date Started: 1/30/18 **Coordinates:** 43.43634° N -124.23925° W (WGS 84)

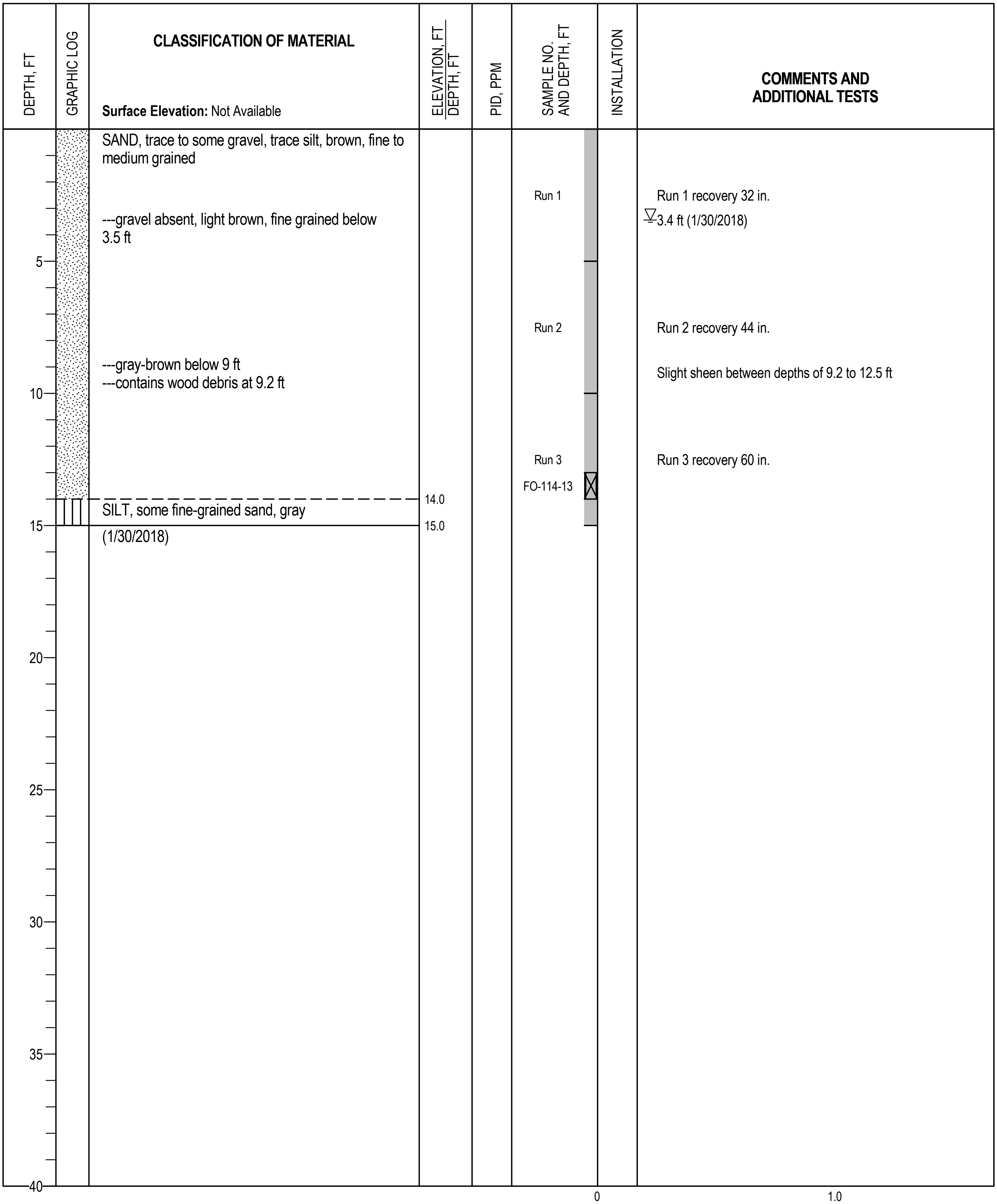
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols

Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING FO-113

JULY 2018 JOB NO. 5764-1195 FIG. 13A



CLASSIFICATION OF MATERIAL

Surface Elevation: Not Available

SAND, trace to some gravel, trace silt, brown, fine to medium grained

---gravel absent, light brown, fine grained below 3.5 ft

---gray-brown below 9 ft
---contains wood debris at 9.2 ft

SILT, some fine-grained sand, gray

(1/30/2018)

Run 1

Run 2

Run 3

FO-114-13

COMMENTS AND ADDITIONAL TESTS

Run 1 recovery 32 in.

∇3.4 ft (1/30/2018)

Run 2 recovery 44 in.

Slight sheen between depths of 9.2 to 12.5 ft

Run 3 recovery 60 in.

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/30/18
Coordinates: 43.43627° N -124.23926° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING FO-114

JULY 2018
JOB NO. 5764-1195
FIG. 14A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	■	Asphalt concrete PAVEMENT (12 in.)					
		SAND, light brown, fine grained	1.0				
					Run 1		Run 1 recovery 32 in. ▽3.1 ft (1/30/2018)
5		---grades to gray-brown below 5 ft					
					Run 2		Run 2 recovery 52 in.
		---gray below 8.5 ft		8.1			Slight sheen and odor between depths of 8.5 to 17.5 ft
10		---dark gray below 10 ft					
					Run 3		Run 3 recovery 60 in.
		Sandy SILT, gray, fine-grained sand	13.5	6.1			
		SAND, dark gray, fine grained	14.5				
15							
					Run 4		Run 4 recovery 60 in.
				3.7			
20		(1/30/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 1/30/18 **Coordinates:** 43.43625° N -124.23937° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING FO-115

JULY 2018 JOB NO. 5764-1195 FIG. 15A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, some gravel, trace silt, brown, fine grained ---gravel absent, light brown below 1 ft					
					Run 1		Run 1 recovery 37 in. ∇3.6 ft (1/31/2018)
5							
		---grades to gray-brown below 7 ft			Run 2		Run 2 recovery 48 in.
		---gray below 9 ft					
10				1.9			Moderate odor at 10 ft
					Run 3		Run 3 recovery 60 in.
		SILT, some fine-grained sand, gray, contains organics	14.0	1.3	FO-116-14		
15		(1/31/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/31/18
Coordinates: 43.4363° N -124.23943° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING FO-116

JULY 2018 JOB NO. 5764-1195 FIG. 16A

DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	Asphalt concrete PAVEMENT (4 in.)	0.3				
	SAND, some gravel, trace to some silt, dark brown, fine to medium grained ---gravel absent, light brown, fine grained below 1 ft			Run 1		Run 1 recovery 37 in. ▽ 3.1 ft (1/31/2018)
5			0.7			
	---light gray below 8 ft			Run 2		Run 2 recovery 49 in.
10						
	---some silt, gray below 13 ft			Run 3		Run 3 recovery 60 in.
	---up to trace silt below 14 ft			FO-117-13 ☒		
			0			
15	(1/31/2018)	15.0				
20						
25						
30						
35						
40						

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 1/31/18 **Coordinates:** 43.43617° N -124.2392° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING FO-117

JULY 2018 JOB NO. 5764-1195 FIG. 17A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace silt and gravel, brown, fine to medium grained ---gravel absent, light brown below 0.5 ft			Run 1		▽2.4 ft (1/31/2018) Run 1 recovery 32 in.
		---gray-brown, contains organics below 4 ft		0	FO-118-4 ☒		
5							
		---organics absent below 7 ft ---gray below 8 ft		0	Run 2		Run 2 recovery 60 in.
10							
		Sandy SILT, gray, fine-grained sand, sandier material in graded interbeds	12.5		Run 3		Run 3 recovery 60 in.
		SAND, light gray, fine grained	13.5	0			
15		(1/31/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 1/31/18
Coordinates: 43.43611° N -124.23883° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING FO-118

JULY 2018 JOB NO. 5764-1195 FIG. 18A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (3 in.)	0.2				
		SAND, light brown, fine grained					
					Run 1		Run 1 recovery 30 in.
5		---trace silt below 5 ft					
					Run 2		Run 2 recovery 49 in.
		---dark brown to gray below 8 ft		70 58	BP-119-8 ☒		Heavy odor between depths of 8 to 20 ft
10							
							Heavy sheen between depths of 11 to 24 ft
					Run 3		Run 3 recovery 60 in.
				55			
15							
				33			
		---gray below 17 ft					
					Run 4 BP-119-17 ☒		Run 4 recovery 60 in.
20							Moderate odor between depths of 20 to 28 ft
				30.2			
					Run 5		Run 5 recovery 60 in.
							Moderate sheen between depths of 24 to 26 ft
25							
				28			Slight sheen between depths of 26 to 29 ft
					Run 6		Run 6 recovery 60 in. Slight odor between depths of 28 to 43.5 ft
				0.7			Slight staining or sheen on acetate sleeves between depths of 29 to 43.5 ft
30							
				0			
					Run 7		Run 7 recovery 60 in.
		---light gray below 33 ft			BP-119-33 ☒		
35							
					Run 8		Run 8 recovery 60 in.
40							
						0	1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

(CONTINUED NEXT PAGE)

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 1/31/18	**Coordinates:** 43.4354° N -124.2394° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-119

JULY 2018 JOB NO. 5764-1195 FIG. 19A

Surface Elevation: Not Available

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	▨	SAND, trace silt, light gray, fine grained ---contains shell fragments at 43.5 ft			Run 9		Slight odor and staining or sheen on acetate sleeves to 43.5 ft Run 9 recovery 60 in.
45		(1/31/2018) Depth to groundwater not measured due to caving	45.0				
50							
55							
60							
65							
70							
75							
80							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

GRI

BORING BP-119

JULY 2018 JOB NO. 5764-1195 FIG. 19A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, some gravel, trace silt, brown with scattered red mottling, fine to medium grained ---gravel absent, light brown, fine grained below 1 ft					
					Run 1		Run 1 recovery 34 in. ∇ 3.2 ft (2/1/2018)
5				1			
		---light gray to light brown below 7 ft					
					Run 2		Run 2 recovery 45 in.
		---dark gray below 8 ft			BP-120-8 ☒		Moderate sheen and odor between depths of 8 to 9 ft
				2.9			
10							
					BP-120-11 ☒		
					Run 3		Run 3 recovery 60 in.
		---trace to some silt below 14 ft					
15		---up to trace silt, gray-brown below 15 ft					
					Run 4		Run 4 recovery 35 in.
20		(2/1/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/1/18	**Coordinates:** 43.43556° N -124.23951° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-120

JULY 2018 JOB NO. 5764-1195 FIG. 20A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace silt and gravel, light brown to dark brown, fine to coarse grained ---gravel absent, light brown, fine grained below 1.5 ft			Run 1		Run 1 recovery 32 in.
							∇3.8 ft (2/1/2018)
5							
					Run 2		Run 2 recovery 50 in.
		---contains organics at 9 ft, light gray-brown below 9 ft		3.3	BP-121-9 ☒		Possible slight odor at 9 ft
10							
					Run 3		Run 3 recovery 60 in.
15							
					Run 4		Run 4 recovery 40 in.
20							
					Run 5		Run 5 recovery 45 in.
		---trace to some silt at 23 ft					
25							
					Run 6		Run 6 recovery 43 in.
30		(2/1/2018)	30.0				
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/1/18
Coordinates: 43.43522° N -124.23928° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-121

JULY 2018 JOB NO. 5764-1195 FIG. 21A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	▨	SAND, trace to some silt and gravel, brown, fine to medium grained ---gravel absent, up to trace silt, light brown mottled brown, fine grained, contains organics			Run 1		Run 1 recovery 22 in.
	▨						▽3.7 ft (2/1/2018)
5	▨	---contains metal fragments below 5 ft		1			Slight odor between depths of 6 to 7 ft
	▨	---metal fragments absent below 7 ft ---light gray, organics absent below 8 ft		2	Run 2 BP-122-7 ☒		Run 2 recovery 48 in.
10	▨	---gray below 10 ft					
	▨				Run 3		Run 3 recovery 60 in.
15		(2/1/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/1/18
Coordinates: 43.43531° N -124.23928° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING BP-122

JULY 2018 JOB NO. 5764-1195 FIG. 22A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace silt, light brown, fine grained					
					Run 1		Run 1 recovery 28 in.
							▽3.8 ft (2/1/2018)
5							
					Run 2		Run 2 recovery 47 in.
		---contains woody debris at 8.5 ft, gray below 8.5 ft		3.2	BP-123-8 ☒		
10							
					Run 3		Run 3 recovery 60 in.
				0			
15		(2/1/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/1/18	**Coordinates:** 43.43508° N -124.23968° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

BORING BP-123

JULY 2018 JOB NO. 5764-1195 FIG. 23A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, some gravel, trace silt, brown to red-brown, fine grained, contains organics ---gravel absent, light brown to brown mottled dark brown below 0.5 ft			Run 1		Run 1 recovery 34 in. ∇3.7 ft (2/1/2018)
5					Run 2		Run 2 recovery 49 in.
		---gray below 8.5 ft		0.6			
10		---dark gray below 13 ft			Run 3		Run 3 recovery 60 in.
		SILT, trace to some fine-grained sand, dark gray, contains organics	14.0				
15		(2/1/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

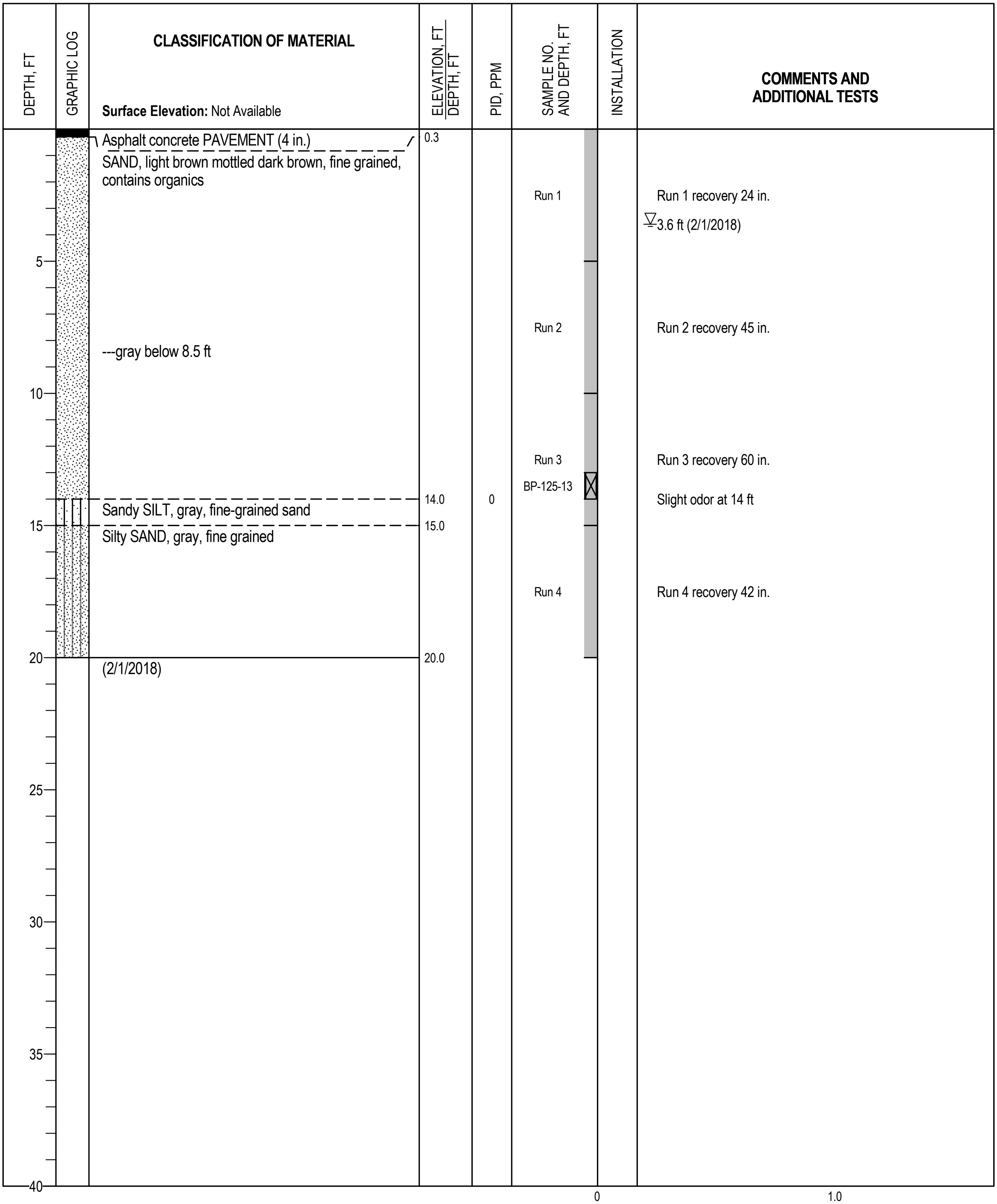
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/1/18
Coordinates: 43.43519° N -124.23944° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-124

JULY 2018 JOB NO. 5764-1195 FIG. 24A



DEPTH, FT	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Asphalt concrete PAVEMENT (4 in.)	0.3				
	SAND, light brown mottled dark brown, fine grained, contains organics					
				Run 1		Run 1 recovery 24 in.
						▽3.6 ft (2/1/2018)
5						
				Run 2		Run 2 recovery 45 in.
	---gray below 8.5 ft					
10						
				Run 3		Run 3 recovery 60 in.
				BP-125-13 ☒		
	Sandy SILT, gray, fine-grained sand	14.0	0			Slight odor at 14 ft
15	Silty SAND, gray, fine grained	15.0				
				Run 4		Run 4 recovery 42 in.
20	(2/1/2018)	20.0				
25						
30						
35						
40						

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/1/18	**Coordinates:** 43.43534° N -124.23932° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-125

JULY 2018 JOB NO. 5764-1195 FIG. 25A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0		Asphalt concrete PAVEMENT (3 in.)	0.2				
		SAND, trace to some silt, light brown to dark brown, fine grained, contains organics					
					Run 1		Run 1 recovery 14 in.
							∇3.3 ft (2/1/2018)
5							Slight sheen between depths of 5 and 6 ft
				0.3			
					BP-126-6		
		---up to trace silt, light brown, organics absent below 7 ft			Run 2		Run 2 recovery 51 in.
		---dark gray-brown at 8.5 ft					
10		---gray below 10 ft					
					Run 3		Run 3 recovery 60 in.
		---dark gray, trace to some silt below 14 ft		0			
15		(2/1/2018)	15.0				
20							
25							
30							
35							
40							

0

1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/1/18
Coordinates: 43.43537° N -124.2395° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING BP-126

JULY 2018 JOB NO. 5764-1195 FIG. 26A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0		Portland cement CONCRETE (5 in.)	0.4				
		SAND, light brown, fine grained					
					Run 1		Run 1 recovery 27 in.
5							
					Run 2		Run 2 recovery 45 in.
		---trace silt, gray to dark gray below 8.5 ft		0	BP-127-8 ☒		Slight sheen at 9 ft
10							
					Run 3		Run 3 recovery 60 in.
					BP-127-13 ☒		
15		(2/1/2018) Depth to groundwater not measured due to caving	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon | **Drilled by:** Stratus Corporation

Date Started: 2/1/18 | **Coordinates:** 43.43551° N -124.23929° W (WGS 84)

Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols

Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-127

JULY 2018 JOB NO. 5764-1195 FIG. 27A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	■	Asphalt concrete PAVEMENT (6 in.)	0.5				
	░	SAND, light brown, fine grained					
	░				Run 1		Run 1 recovery 36 in.
	░						▽3.8 ft (2/2/2018)
	░	---3-in.-thick lens of organics at 4 ft					
5	░			0			
	░	---trace silt, black below 7.5 ft			Run 2		Run 2 recovery 45 in.
	░						Moderate sheen and heavy odor between depths of 7.5 and 14 ft
	░			107	BP-128-9 ☒		
10	░						
	░				Run 3		Run 3 recovery 60 in.
	░			11			
	░			0	BP-128-15 ☒		
15		(2/2/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/2/18 **Coordinates:** 43.43542° N -124.23927° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-128

JULY 2018 JOB NO. 5764-1195 FIG. 28A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (3 in.)	0.2				
		SAND, light brown, fine grained					
					Run 1		Run 1 recovery 32 in.
							∇4.0 ft (2/2/2018)
5				1			
		---dark brown below 6 ft					Heavy odor at 6.5 ft
					Run 2		Run 2 recovery 45 in.
		---dark gray below 9 ft		140	BP-129-8		Slight to moderate sheen between depths of 8 to 10 ft
10							Moderate to heavy sheen, moderate odor between depths of 10 to 13.5 ft
					Run 3		Run 3 recovery 60 in.
		---trace to some silt, gray below 13 ft		60			
					BP-129-14		
15		(2/2/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/2/18	**Coordinates:** 43.43543° N -124.23923° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-129

JULY 2018 JOB NO. 5764-1195 FIG. 29A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	▨	SAND, trace to some silt, trace gravel, brown, fine to medium grained ---trace silt, light brown mottled brown, fine grained below 0.5 ft			Run 1		∇2.0 ft (2/2/2018) Run 1 recovery 32 in.
5	▨	---gravel lens at 4.5 ft			Run 2		Run 2 recovery 6 in.
		(2/2/2018) Practical refusal at 5.5 ft	5.5				
10							
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/2/18
Coordinates: 43.43544° N -124.23918° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING BP-130

JULY 2018 JOB NO. 5764-1195 FIG. 30A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (3 in.)	0.2				
		SAND, light brown, fine grained					
					Run 1		Run 1 recovery 26 in.
5							▽4.8 ft (2/2/2018)
					Run 2		Run 2 recovery 44 in.
		---trace silt, light gray below 8.5 ft					Moderate odor between depths of 8.5 to 10 ft
				300	MS-131-9 ☒		
10							Heavy odor between depths of 10 to 15 ft
					Run 3		Run 3 recovery 60 in.
		--silty, gray below 14 ft					
15		---trace silt below 15 ft					Slight to moderate odor between depths of 15 to 20 ft
					Run 4		Run 4 recovery 40 in.
				0.9			
20							
					MS-131-21 ☒		
					Run 5		Run 5 recovery 43 in.
				0			Slight odor between depths of 23 to 24 ft
		---silty sand lens at 24 ft					
25		(2/2/2018)	25.0				
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

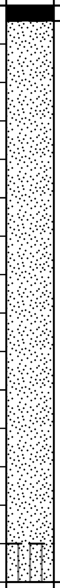
Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/2/18 **Coordinates:** 43.43481° N -124.23936° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING MS-131

JULY 2018 JOB NO. 5764-1195 FIG. 31A

Surface Elevation: Not Available



DEPTH, FT	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Asphalt concrete PAVEMENT (5 in.)	0.4				
	SAND, light brown, fine grained					
				Run 1		Run 1 recovery 15 in.
						∇4.6 ft (2/2/2018)
5						
				Run 2		Run 2 recovery 47 in.
	---light gray, contains organics below 8.5 ft					
			2	MS-132-9 ☒		
10	---light gray to gray below 10 ft					
			2.6			
				Run 3		Run 3 recovery 60 in.
	---silty, gray below 14 ft					
15	(2/2/2018)	15.0				
20						
25						
30						
35						
40						

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/2/18 **Coordinates:** 43.4348° N -124.23946° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING MS-132

JULY 2018 JOB NO. 5764-1195 FIG. 32A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, light brown, fine grained					
					Run 1		Run 1 recovery 31 in.
5							
					Run 2		Run 2 recovery 51 in. ▽8.3 ft (2/2/2018)
		---light gray to gray below 8.5 ft					
				0.3	MS-133-9 ☒		
10							
					Run 3		Run 3 recovery 60 in.
		---trace to some silt, gray below 14 ft					
				0.3			
15		(2/2/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/2/18	**Coordinates:** 43.43477° N -124.23917° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING MS-133

JULY 2018 JOB NO. 5764-1195 FIG. 33A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0		Asphalt concrete PAVEMENT (2 in.)	0.2				
		SAND, light brown, fine grained					Approximately 3-in.-thick concrete slab or fragment encountered at depth of 2 ft
					Run 1		Run 1 recovery 31 in.
5							∇4.7 ft (2/2/2018)
					Run 2		Run 2 recovery 57 in.
		---trace silt, gray to light gray below 8.5 ft ---contains organics at 9 ft		0.3			
10							
					Run 3		Run 3 recovery 60 in.
		---trace to some silt, gray below 13.5 ft		0			
15		(2/2/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/2/18
Coordinates: 43.43461° N -124.23936° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING MS-134

JULY 2018 JOB NO. 5764-1195 FIG. 34A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace silt and gravel, brown, fine to medium grained, contains organics ---gravel and organics absent, light brown, fine grained below 0.7 ft			Run 1		Run 1 recovery 34 in.
							▽4.5 ft (2/5/2018)
5				0			
					Run 2		Run 2 recovery 51 in.
		---light gray below 8.5 ft ---contains wood debris at 9 ft		0			
10							
		---trace to some silt, gray below 13 ft			Run 3		Run 3 recovery 60 in.
				0			
15		(2/5/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/5/18
Coordinates: 43.43494° N -124.23958° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING MS-135

JULY 2018 JOB NO. 5764-1195 FIG. 35A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, light brown, fine grained					
					Run 1		Run 1 recovery 37 in.
							∇4.5 ft (2/5/2018)
5							
				0			
					Run 2		Run 2 recovery 60 in.
		---trace silt, light gray below 8.5 ft					
				0	MS-136-9 ☒		
10							
					Run 3		Run 3 recovery 60 in.
		---trace to some silt, gray below 13.5 ft					
				0			
15		(2/5/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/5/18	**Coordinates:** 43.43491° N -124.23925° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING MS-136

JULY 2018 JOB NO. 5764-1195 FIG. 36A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Portland cement CONCRETE (5 in.)	0.4				
		SAND, light brown, fine grained					
					Run 1		Run 1 recovery 34 in.
							▽3.6 ft (2/5/2018)
		Sandy GRAVEL, trace silt, fine- to medium-grained sand	4.5				
5			5.5	0.9			
		SAND, light brown, fine grained					
					Run 2		Run 2 recovery 58 in.
10				0.8			
				0.5			
					Run 3		Run 3 recovery 60 in.
		SILT, some fine-grained sand, gray ---some clay, trace sand below 14.5 ft	13.5				Very slight sheen between depths of 13 to 20 ft
15		SAND, trace silt, gray to light gray, fine grained	15.5	0.5			
				0.4	HF-137-16 ☒		
					Run 4		Run 4 recovery 45 in.
20		(2/5/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/5/18
Coordinates: 43.43557° N -124.24101° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING HF-137

JULY 2018 JOB NO. 5764-1195 FIG. 37A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, trace to some silt, light brown, fine grained, contains organics ---up to trace silt, organics absent below 0.5 ft					
					Run 1		Run 1 recovery 34 in. ∇3.3 ft (2/5/2018)
5				1.6			
					Run 2		Run 2 recovery 55 in.
		---contains wood debris at 8.5 ft ---trace silt, light brown-gray below 9 ft					
10				0			
					Run 3		Run 3 recovery 60 in.
		Clayey SILT, trace fine-grained sand, gray	13.5	0			
15		(2/5/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/5/18	**Coordinates:** 43.43561° N -124.24114° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING HF-138

JULY 2018 JOB NO. 5764-1195 FIG. 38A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	░	SAND, light brown, fine grained			Run 1		Run 1 recovery 19 in. ▽ 3.2 ft (2/5/2018)
5	░	---contains organics at 5 ft, trace silt, brown below 5 ft		0.2 0.2	Run 2		Run 2 recovery 16 in.
		(2/5/2018) Refusal on obstruction at 7 ft	7.0				
10							
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/5/18	**Coordinates:** 43.43557° N -124.24094° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING HF-139

JULY 2018 JOB NO. 5764-1195 FIG. 39A

DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Portland cement CONCRETE (5 in.)	0.4				
	SAND, light brown, fine grained					
				Run 1		Run 1 recovery 24 in.
						∇3.5 ft (2/5/2018)
5			0			
				Run 2		Run 2 recovery 48 in.
	---trace to some silt below 8 ft					
	---coarse sand with some gravel lens at 8.5 ft					
10	---light brown-gray below 10 ft					
			0			
				Run 3		Run 3 recovery 60 in.
	---gray below 13 ft					
			0	HF-140-13		
		14.5				
15	Clayey SILT, gray (2/5/2018)	15.0				
20						
25						
30						
35						
40						

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

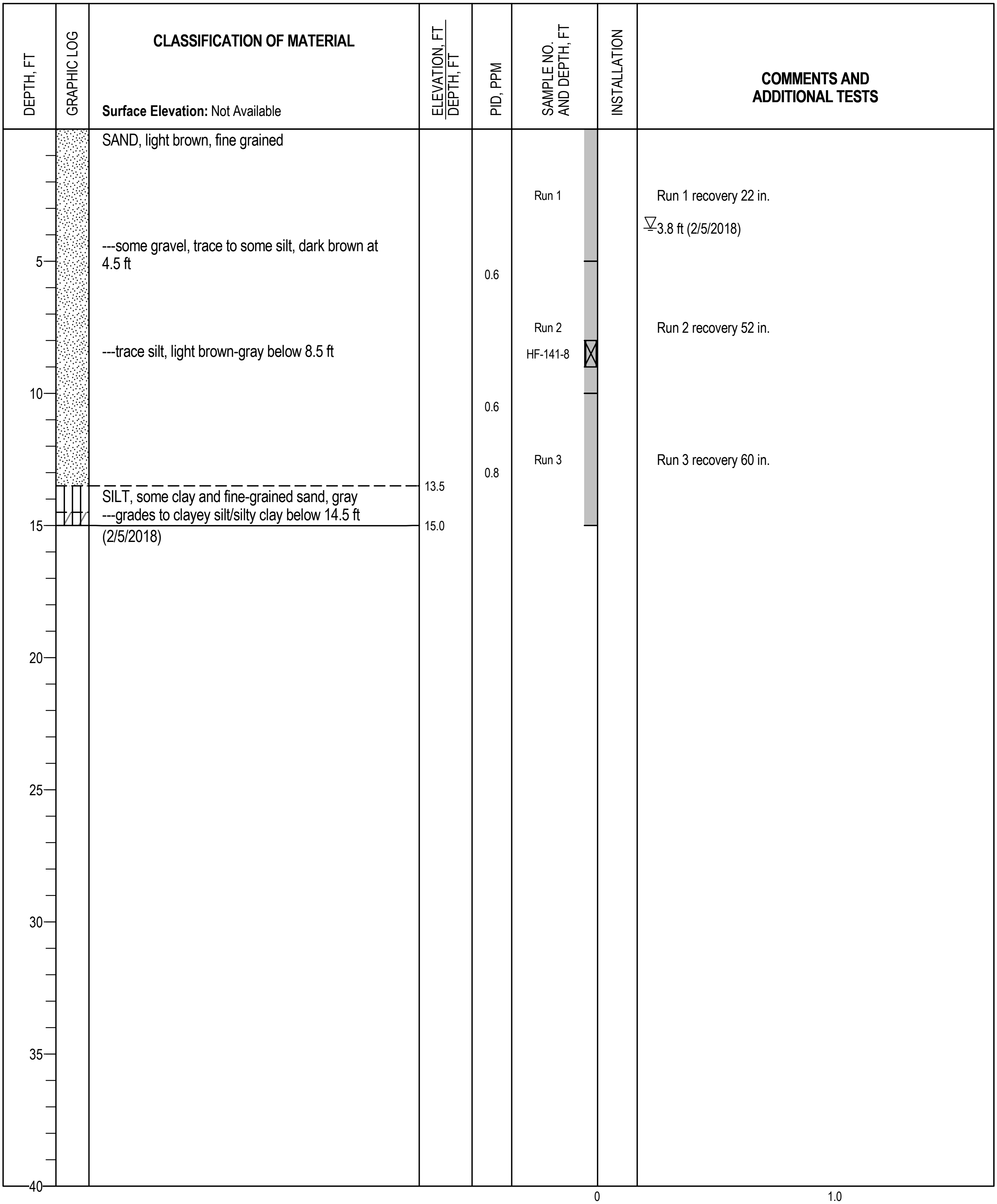
Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/5/18 **Coordinates:** 43.4356° N -124.2409° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING HF-140

JULY 2018 JOB NO. 5764-1195 FIG. 40A

DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	SAND, light brown, fine grained					
				Run 1		Run 1 recovery 22 in.
						▽3.8 ft (2/5/2018)
5	---some gravel, trace to some silt, dark brown at 4.5 ft		0.6			
				Run 2		Run 2 recovery 52 in.
	---trace silt, light brown-gray below 8.5 ft			HF-141-8		
10			0.6			
				Run 3		Run 3 recovery 60 in.
			0.8			
	SILT, some clay and fine-grained sand, gray	13.5				
	---grades to clayey silt/silty clay below 14.5 ft					
15	(2/5/2018)	15.0				



ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/5/18	**Coordinates:** 43.43561° N -124.24101° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

BORING HF-141

JULY 2018 JOB NO. 5764-1195 FIG. 41A

DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Sandy GRAVEL, soem silt, fine- to coarse-grained sand					
				Run 1		Run 1 recovery 42 in.
						∇4.3 ft (2/5/2018)
5	---silty below 5 ft					
				Run 2		Run 2 recovery 27 in.
	SAND, trace silt, gray to light gray, fine grained	8.5				Moderate sheen and odor between depths of 9 to 11 ft
10			0			
			0	CT-142-11 ☒		
				Run 3		Run 3 recovery 60 in.
	Sandy SILT, gray, fine-grained sand	14.0				
15	SAND, trace silt, gray to light gray, fine grained	15.0	0			
				Run 4		Run 4 recovery 43 in.
	---silt with some clay lens at 19 ft					
20	(2/5/2018)	20.0				
25						
30						
35						
40						

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/5/18
Coordinates: 43.43525° N -124.24111° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING CT-142

JULY 2018 JOB NO. 5764-1195 FIG. 42A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, light brown, fine grained					
		---trace to some silt, brown, contains organics at 3 ft			Run 1		Run 1 recovery 36 in.
							∇3.6 ft (2/5/2018)
5							
					Run 2		Run 2 recovery 55 in.
		---trace silt, light gray below 8.5 ft					
10				0.5			
					CT-143-11		
					Run 3		Run 3 recovery 60 in.
		Clayey SILT, gray	13.5	0.6			
15		(2/5/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/5/18
Coordinates: 43.4352° N -124.24073° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING CT-143

JULY 2018 JOB NO. 5764-1195 FIG. 43A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace silt, fine-graiend sand	1.0				
		SAND, light brown, fine grained			Run 1		Run 1 recovery 36 in. ▽3.5 ft (2/5/2018)
5		---trace silt below 5 ft					
				0	Run 2		Run 2 recovery 60 in.
		---contains wood debris at 8.5 ft, light gray-brown below 8.5 ft					
10							
				0	Run 3		Run 3 recovery 60 in.
		SILT, some clay and fine-grained sand, gray	14.0				
15		---contains wood debris near 15 ft	15.0				
		SAND, trace silt, gray, fine grained					
		---clay with some silt lens at 18 ft			Run 4		Run 4 recovery 44 in.
20		(2/5/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/5/18
Coordinates: 43.43514° N -124.24108° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING CT-144

JULY 2018 JOB NO. 5764-1195 FIG. 44A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand, contains organics ---organics absent below 0.5 ft ---increasing sand content with depth			Run 1		Run 1 recovery 41 in. ∇3.8 ft (2/6/2018)
5		Silty SAND, some gravel, red-brown, fine to medium grained	5.0	0			
		---trace silt, gray, fine grained below 8 ft			Run 2 CT-145-7		Run 2 recovery 34 in. Moderate sheen and discoloration, moderate to heavy odor between depths of 7 to 14 ft
10		---trace to some silt below 10 ft		0			
				0	Run 3		Run 3 recovery 55 in.
		SILT, trace to some clay, gray	13.5				
15		SAND, trace to some silt, gray, fine grained, contains organics	15.0	0	CT-145-16		
					Run 4		Run 4 recovery 44 in.
		SILT, some clay, gray	19.5				
20		(2/6/2018)	20.0				
25							
30							
35							
40							

0 1.0

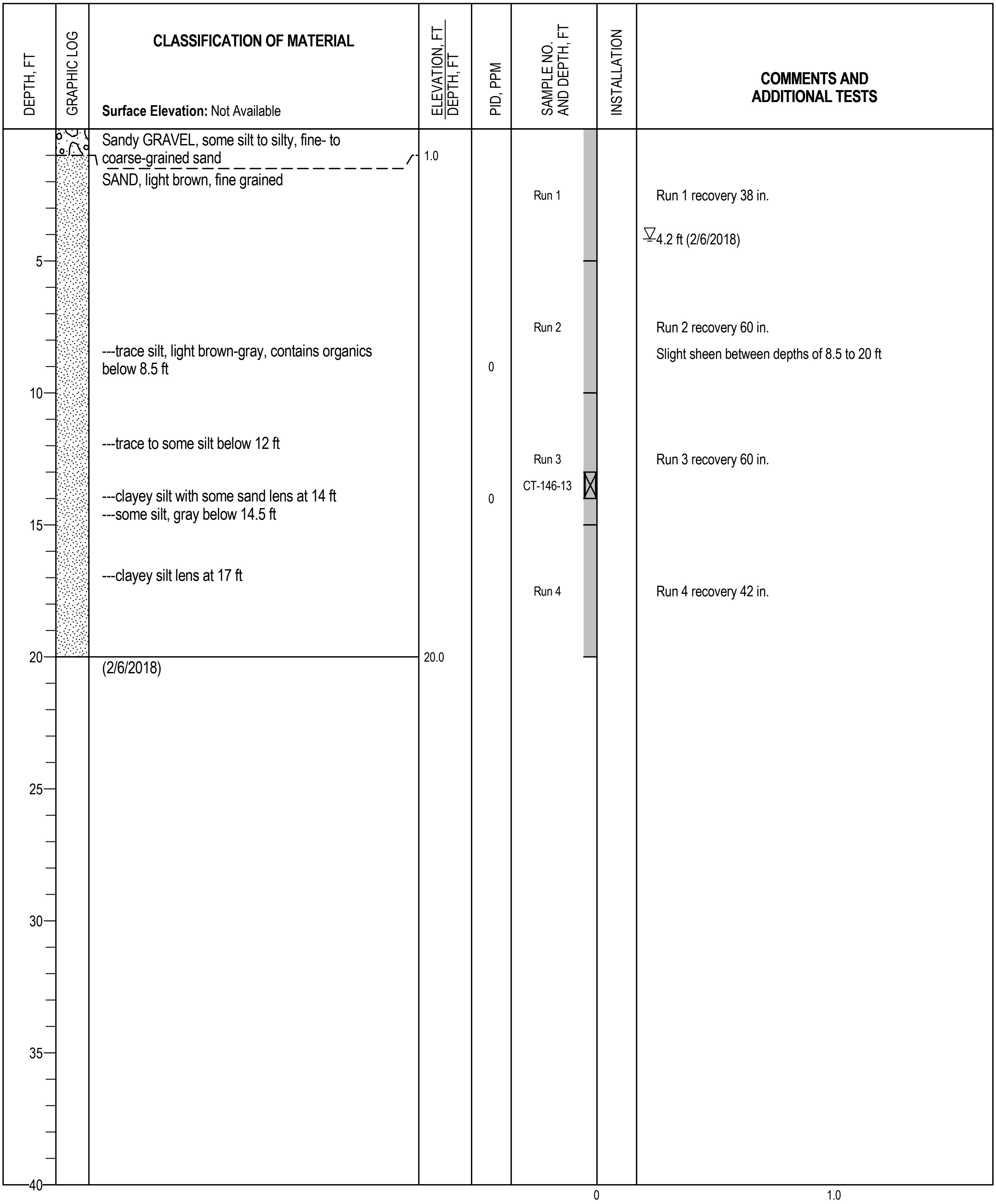
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/6/18 **Coordinates:** 43.43528° N -124.24121° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING CT-145

JULY 2018 JOB NO. 5764-1195 FIG. 45A



DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Sandy GRAVEL, some silt to silty, fine- to coarse-grained sand	1.0				
	SAND, light brown, fine grained			Run 1		Run 1 recovery 38 in.
						▽4.2 ft (2/6/2018)
5				Run 2		Run 2 recovery 60 in. Slight sheen between depths of 8.5 to 20 ft
	---trace silt, light brown-gray, contains organics below 8.5 ft		0			
10	---trace to some silt below 12 ft			Run 3		Run 3 recovery 60 in.
	---clayey silt with some sand lens at 14 ft ---some silt, gray below 14.5 ft		0	CT-146-13		
15	---clayey silt lens at 17 ft			Run 4		Run 4 recovery 42 in.
20	(2/6/2018)	20.0				

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/6/18
Coordinates: 43.43519° N -124.24121° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING CT-146

JULY 2018
JOB NO. 5764-1195
FIG. 46A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, light brown, fine grained					
		Sandy GRAVEL, some silt to silty, fine- to coarse-grained sand	1.0		Run 1		Run 1 recovery 32 in.
5		SAND, light brown, fine grained	5.0	0			▽6.2 ft (2/6/2018)
		---trace silt, light brown-gray below 8 ft			Run 2		Run 2 recovery 44 in. Moderate odor between depths of 8 to 14 ft Slight sheen between depths of 9 to 20 ft
10				0			
		---trace to some silt, light gray below 12.5 ft			Run 3		Run 3 recovery 60 in.
		---gray, contains organics below 14 ft					Moderate sheen at 14 ft
15				0			
		---clayey silt lenses up to 3 in. thick at 17 ft			Run 4		Run 4 recovery 50 in.
20		(2/6/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/6/18
Coordinates: 43.43532° N -124.24103° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING CT-147

JULY 2018 JOB NO. 5764-1195 FIG. 47A

DEPTH, FT	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Asphalt concrete PAVEMENT (7.5 in.)	0.6				
	Sandy GRAVEL, trace silt, fine- to coarse-grained sand			Run 1		Run 1 recovery 27 in.
	SAND, light brown, fine grained	4.5				∇4.6 ft (2/6/2018)
5						
			0	Run 2		Run 2 recovery 55 in.
	---trace silt, light gray-brown below 8.5 ft					
				CT-148-9 ☒		
10						
			0	Run 3		Run 3 recovery 60 in.
	Clayey sandy SILT, gray, fine-grained sand	13.5				
15	(2/6/2018)	15.0				
20						
25						
30						
35						
40						

0 1.0

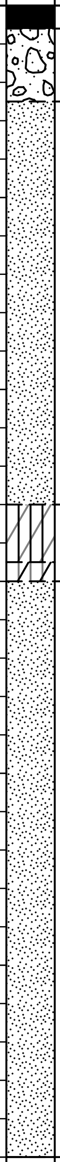
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation	
Date Started: 2/6/18	**Coordinates:** 43.43542° N -124.24099° W (WGS 84)	
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**	
Note: See Legend for Explanation of Symbols		

GRI

BORING CT-148

JULY 2018 JOB NO. 5764-1195 FIG. 48A



DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (8 in.)	0.6				
		Sandy GRAVEL, some silt, fine- to coarse-grained sand	2.5		Run 1		Run 1 recovery 40 in.
		SAND, light brown, fine grained					∇4.5 ft (2/6/2018)
5							
					Run 2		Run 2 recovery 52 in.
		---trace silt, light gray below 8.5 ft					
10				0			
		---some silt, contains wood debris below 12 ft					
					Run 3		Run 3 recovery 60 in.
		Clayey SILT, some fine-grained sand, gray, contains wood debris	13.0		CT-149-13 ☒		Slight sheen between depths of 13 to 25 ft
15		---grades to clay below 14.5 ft	15.0				
		SAND, some silt, light gray, fine grained, contains organics and wood debris					
		---silt with some clay lens at 18 ft		0	Run 4		Run 4 recovery 45 in.
20		---silt with some clay lens at 20 ft					
					Run 5		Run 5 recovery 45 in.
25							
					Run 6		Run 6 recovery 45 in.
					CT-149-29 ☒		
30		(2/6/2018)	30.0				
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/6/18
Coordinates: 43.43537° N -124.24123° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING CT-149

JULY 2018 JOB NO. 5764-1195 FIG. 49A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt cocnrete PAVEMENT (4 in.)	0.3				
		GRAVEL, some fine- to coarse-grained sand, trace to some silt	2.0				
		SAND, light brown, fine grained			Run 1		Run 1 recovery 52 in.
							∇3.4 ft (2/6/2018) Slight sheen between depths of 4 to 20 ft
5		---trace silt below 5 ft					
					Run 2		Run 2 recovery 60 in.
		---trace to some silt, light gray, contains organics below 8.5 ft					
10		---some silt below 10 ft					
					Run 3		Run 3 recovery 60 in.
		Clayey SILT, some fine-grained sand, gray	13.5		CT-150-13 ☒		
15		SAND, some silt, gray, fine grained, contains organics	15.0				
					Run 4		Run 4 recovery 45 in.
		Clayey SILT, trace fine-grained sand, gray	19.0				
20		(2/6/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/6/18
Coordinates: 43.43533° N -124.24132° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING CT-150

JULY 2018 JOB NO. 5764-1195 FIG. 50A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (4 in.)	0.3				
		Sandy GRAVEL, some silt, fine- to coarse-grained sand	2.0				
		SAND, light brown, fine grained			Run 1		▽2.5 ft (2/6/2018) Run 1 recovery 24 in.
5							
		---light gray-brown below 7.5 ft			Run 2		Run 2 recovery 60 in.
10							
							Slight sheen below 12 ft
		Clayey SILT, trace to some fine-grained sand, gray	12.5		Run 3 CT-151-12	☒	Run 3 recovery 60 in.
		SAND, some silt, gray, fine grained	14.0				
15		(2/6/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

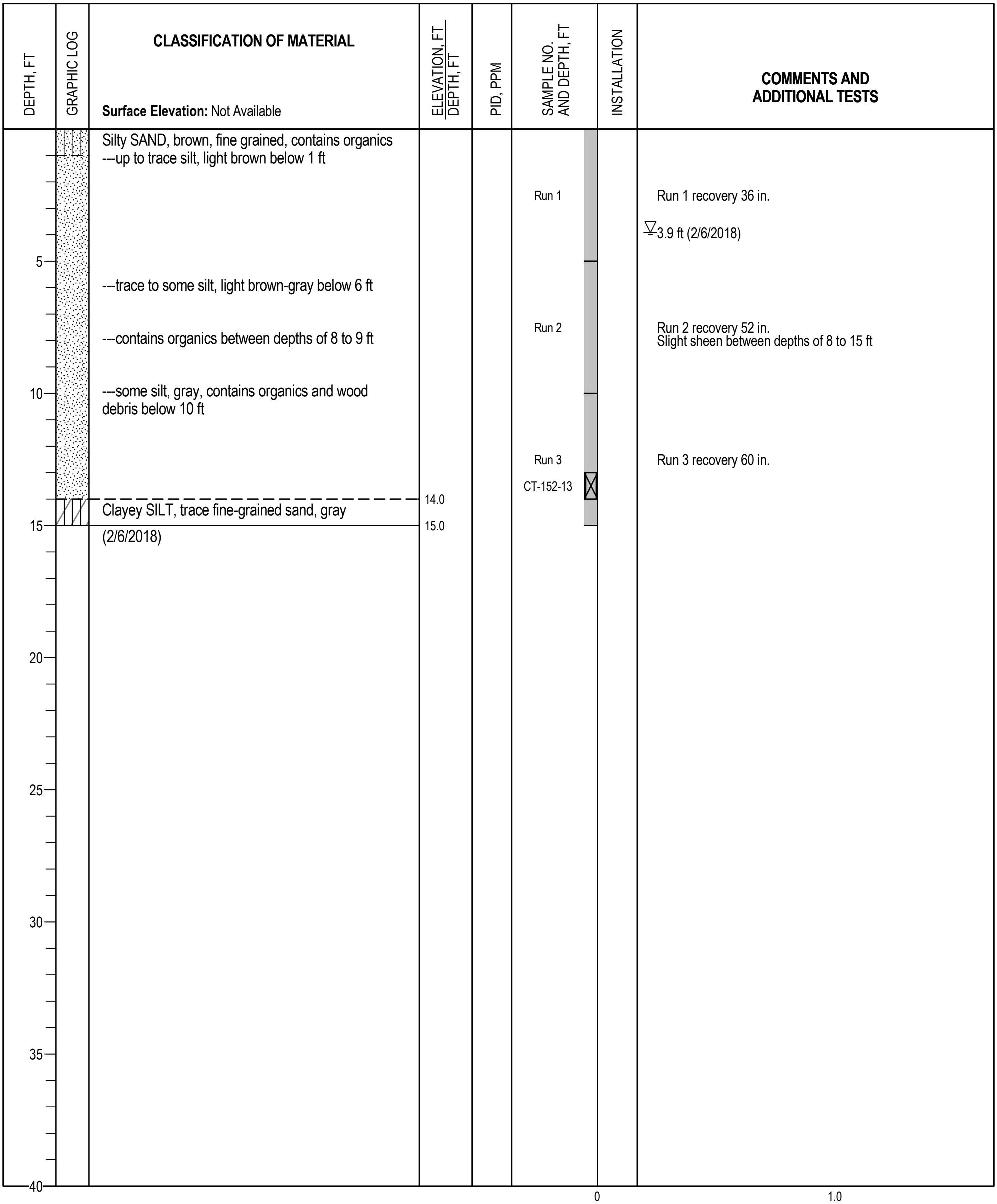
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/6/18 **Coordinates:** 43.43518° N -124.24155° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING CT-151

JULY 2018 JOB NO. 5764-1195 FIG. 51A



DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Silty SAND, brown, fine grained, contains organics ---up to trace silt, light brown below 1 ft					
					Run 1		Run 1 recovery 36 in.
							∇3.9 ft (2/6/2018)
5							
		---trace to some silt, light brown-gray below 6 ft					
		---contains organics between depths of 8 to 9 ft			Run 2		Run 2 recovery 52 in. Slight sheen between depths of 8 to 15 ft
10		---some silt, gray, contains organics and wood debris below 10 ft					
					Run 3		Run 3 recovery 60 in.
					CT-152-13		
		Clayey SILT, trace fine-grained sand, gray	14.0				
15		(2/6/2018)	15.0				
20							
25							
30							
35							
40							

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/6/18	**Coordinates:** 43.43525° N -124.24083° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING CT-152

JULY 2018 JOB NO. 5764-1195 FIG. 52A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt cocnrete PAVEMENT (4 in.)	0.3				
		Sandy GRAVEL, some silt, fine- to coarse-grained sand	1.0				
		SAND, light brown, fine grained			Run 1		∇2.4 ft (2/7/2018) Run 1 recovery 45 in.
5		---trace to some silt, gray below 5 ft		0			
					Run 2		Run 2 recovery 60 in.
		---gray mottled brown, contains organics and wood debris at 8 ft					
10				0			
					Run 3		Run 3 recovery 60 in.
		SILT, some clay and fine-grained sand, gray	13.0				
		SAND, some silt, gray, fine grained	14.0	0			
15		(2/7/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/7/18
Coordinates: 43.43507° N -124.24134° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING CT-153

JULY 2018 JOB NO. 5764-1195 FIG. 53A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand (Fill)			Run 1		Run 1 recovery 19 in.
							∇4.5 ft (2/7/2018)
5		SAND, light brown, fine grained, contains organics	5.0	0			
					Run 2		Run 2 recovery 27 in.
		---trace to some silt, light brown-gray below 8.5 ft					
10		---gray below 10 ft		0			
					Run 3		Run 3 recovery 60 in.
		Clayey SILT, trace to some fine-grained sand, gray, contains wood debris	14.0	0			
15		(2/7/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation	
Date Started: 2/7/18	**Coordinates:** 43.43485° N -124.24155° W (WGS 84)	
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**	
Note: See Legend for Explanation of Symbols		

GRI

BORING CT-154

JULY 2018 JOB NO. 5764-1195 FIG. 54A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	■	Asphalt concrete PAVEMENT (5 in.)	0.4				
	▨	Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand (Fill)			Run 1		Run 1 recovery 26 in.
5	▨	SAND, some gravel, trace to some silt, brown-gray, fine to coarse grained (Fill)	5.0		Run 2		Run 2 recovery 15 in.
		(2/7/2018) Practical refusal at 7 ft Groundwater not encountered	7.0				
10							
15							
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/7/18 **Coordinates:** 43.43452° N -124.24136° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-155

JULY 2018 JOB NO. 5764-1195 FIG. 55A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (3 in.)	0.2				
		SAND, some silt, trace gravel, dark brown, fine to coarse grained ---up to trace silt, gravel absent, light brown-gray, fine grained below 1 ft			Run 1		∇1.6 ft (2/7/2018) Run 1 recovery 26 in.
5		---trace to some silt, contains wood debris 5 ft					
				0.4	Run 2 DB-156-6		Run 2 recovery 18 in. Slight odor and sheen between depths of 6 to 7 ft
		(2/7/2018) Practical refusal at 7.5 ft	7.5				
10							
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/7/18
Coordinates: 43.43467° N -124.24107° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-156

JULY 2018 JOB NO. 5764-1195 FIG. 56A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (5 in.)	0.4				
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand (Fill)	2.5		Run 1		Run 1 recovery 37 in.
5		SAND, light brown, fine grained	5.3		DB-157-5 Run 2		Run 2 recovery 4 in.
		(2/7/2018) Practical refusal at 5.3 ft Groundwater not encountered					

10 15 20 25 30 35 40

0 1.0

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation	
Date Started: 2/7/18	**Coordinates:** 43.43435° N -124.24127° W (WGS 84)	
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**	
Note: See Legend for Explanation of Symbols		

GRI

BORING DB-157

JULY 2018 JOB NO. 5764-1195 FIG. 57A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand	4.0		Run 1		Run 1 recovery 37 in.
5		SAND, light gray, fine grained	5.1	0.2	Run 2		Run 2 recovery 1 in.
		(2/7/2018) Practical refusal at 5.1 ft Groundwater not encountered					
10							
15							
20							
25							
30							
35							
40							

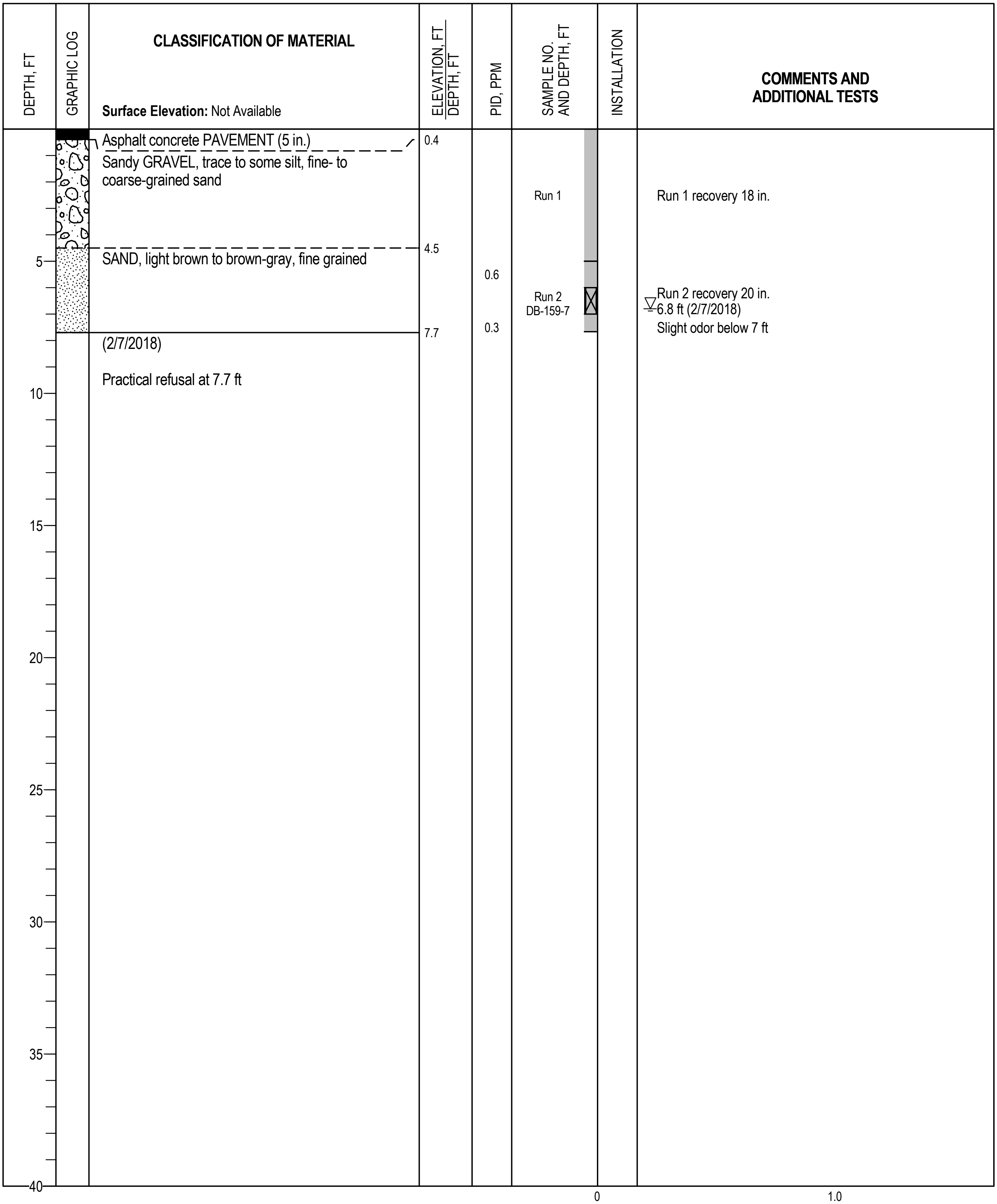
0 1.0

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/7/18
Coordinates: 43.43441° N -124.24117° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-158

JULY 2018 JOB NO. 5764-1195 FIG. 58A



DEPTH, FT	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Asphalt concrete PAVEMENT (5 in.)	0.4				
	Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand			Run 1		Run 1 recovery 18 in.
5	SAND, light brown to brown-gray, fine grained	4.5	0.6	Run 2 DB-159-7		Run 2 recovery 20 in. ▽ 6.8 ft (2/7/2018) Slight odor below 7 ft
	(2/7/2018) Practical refusal at 7.7 ft	7.7	0.3			

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/7/18	**Coordinates:** 43.43438° N -124.24132° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING DB-159

JULY 2018 JOB NO. 5764-1195 FIG. 59A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace silt, fine- to coarse-grained sand			Run 1		Run 1 recovery 35 in.
		SAND, light brown, fine grained	4.0				
5							∇5.2 ft (2/7/2018)
		---contains abundant wood debris at 7.5 ft			Run 2		Run 2 recovery 45 in.
10		---trace to some silt, gray below 10 ft		0.4 0.4			
					Run 3 DB-160-12		Run 3 recovery 55 in.
		Clayey SILT, trace to some fine-grained sand, gray	14.0	0.4			
15		(2/7/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation	
Date Started: 2/7/18	**Coordinates:** 43.43439° N -124.24107° W (WGS 84)	
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.		**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols		

GRI

BORING DB-160

JULY 2018 JOB NO. 5764-1195 FIG. 60A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND			Run 1		Run 1 recovery 16 in.
		Portland cement CONCRETE (6 in.)	1.5				Probe refusal on concrete at 1.5 ft; driller uses destructive drill bit to penetrate to 2 ft
		SAND, light brown, fine grained	2.0		Run 2		Run 2 recovery 17 in.
5				0.1			
					Run 3		Run 3 recovery 48 in.
		---contains wood debris at 8.5 ft, contains organics below 8.5 ft					
10		---trace to some silt, gray below 10 ft					
					Run 4		Run 4 recovery 60 in.
					DB-161-13		Sight sheen between depths of 13 to 30 ft
15		---some silt below 15 ft					
				0.2			
					Run 5		Run 5 recovery 40 in.
20							
					Run 6		Run 6 recovery 41 in.
25				0.5			
					Run 7		Run 7 recovery 44 in.
				0.4	DB-161-30		
30		(2/7/2018) Depth to groundwater not measured due to caving, observed to be at least 10 ft below existing grade	30.0				
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/7/18 **Coordinates:** 43.43417° N -124.2412° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

BORING DB-161

JULY 2018 JOB NO. 5764-1195 FIG. 61A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand					
					Run 1		Run 1 recovery 37 in.
		SAND, light brown, fine grained, contains wood debris and organics	4.0				
5							Slight to moderate odor between depths of 5 to 8 ft
				1.8			
							∇7.3 ft (2/7/2018)
					Run 2		Run 2 recovery 47 in. Moderate to heavy odor between depths of 8 to 10 ft Moderate to heavy sheen between depths of 8 to 11 ft
				0.1			
		---12-in.-thick layer of wood debris with some sand and trace silt at 9 ft			DB-162-10		
10		---trace to some silt, light brown-gray below 10 ft					
				1.2			
					Run 3		Run 3 recovery 49 in. Slight sheen between depths of 12 to 20 ft
				1			
15							
					Run 4		Run 4 recovery 34 in.
		Sandy SILT, some clay, gray, fine-grained sand	18.0				
20							
		CLAY, trace silt, gray	20.5				
		SAND, trace to some silt, light brown-gray, fine grained	21.0				
					DB-162-21		
					Run 5		Run 5 recovery 39 in.
25		(2/7/2018)	25.0				
30							
35							
40							

0 1.0

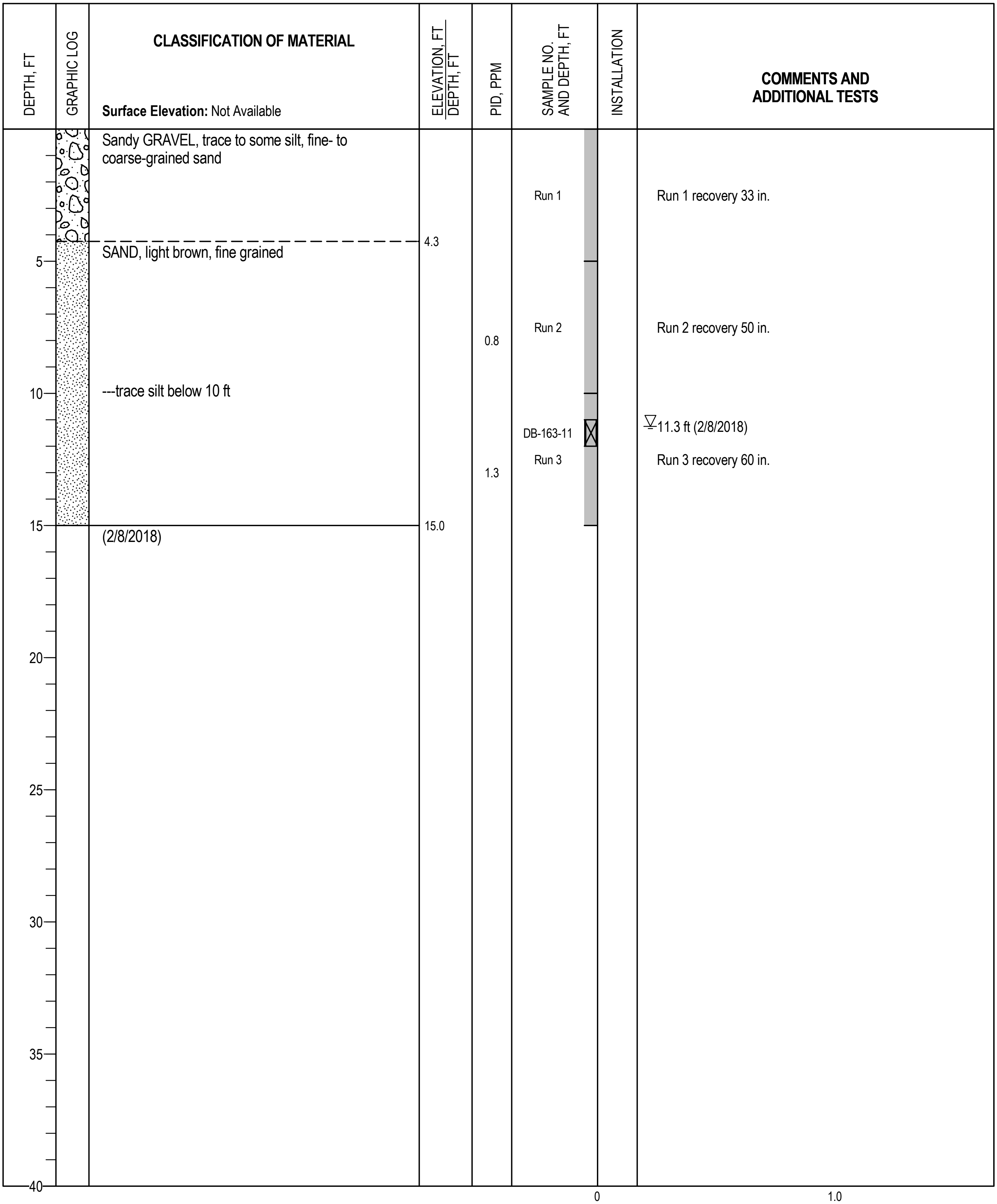
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/7/18 **Coordinates:** 43.43433° N -124.24137° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-162

JULY 2018 JOB NO. 5764-1195 FIG. 62A



DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand					
					Run 1		Run 1 recovery 33 in.
		SAND, light brown, fine grained	4.3				
				0.8	Run 2		Run 2 recovery 50 in.
10		---trace silt below 10 ft					
					DB-163-11		∇11.3 ft (2/8/2018)
				1.3	Run 3		Run 3 recovery 60 in.
15		(2/8/2018)	15.0				

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/8/18 **Coordinates:** 43.43431° N -124.24139° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-163

JULY 2018 JOB NO. 5764-1195 FIG. 63A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	**COMMENTS AND ADDITIONAL TESTS**
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand			Run 1		Run 1 recovery 35 in.
5		SAND, some silt, gray to dark brown, fine to medium grained, contains wood debris ---light brown below 5.5 ft	3.5	1.2	Run 2		Run 2 recovery 26 in.
10		(2/8/2018) Practical refusal at 7.5 ft Groundwater not encountered	7.5				
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/8/18	**Coordinates:** 43.43437° N -124.2414° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING DB-164

JULY 2018 JOB NO. 5764-1195 FIG. 64A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand					
					Run 1		Run 1 recovery 40 in.
		SAND, light brown, fine grained	4.0				
5		---trace silt, contains wood debris and organics below 5 ft					
					Run 2		Run 2 recovery 41 in.
		---12-in.-thick layer of wood debris with some sand at 9 ft		1.4	DB-165-10		
10		---trace to some silt below 10 ft					
					Run 3		Run 3 recovery 60 in.
		---grades to gray below 14 ft		1.3			
15		(2/8/2018) Depth to groundwater not measured due to caving, observed to be at least 8 ft below existing grade	15.0				
20							
25							
30							
35							
40							

0

1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/8/18
Coordinates: 43.4344° N -124.24146° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-165

JULY 2018 JOB NO. 5764-1195 FIG. 65A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand			Run 1		Run 1 recovery 36 in.
		SAND, light brown, fine grained ---4-in.-thick layer of clayey sandy silt at 4 ft	3.0				
5							
					Run 2		Run 2 recovery 44 in.
		---trace silt, contains organic debris at 8.5 ft		1.2			Slight odor at 8.5 ft
10		---trace to some silt below 10 ft					
					DB-166-11 ☒		
					Run 3		Run 3 recovery 58 in.
		---light gray below 14 ft		0.5			
15		(2/8/2018) Depth to groundwater not measured due to caving, observed to be at least 10 ft below existing grade	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/8/18	**Coordinates:** 43.4343° N -124.24133° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING DB-166

JULY 2018 JOB NO. 5764-1195 FIG. 66A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace silt, fine- to coarse-grained sand					
		SAND, gray to light brown, fine grained	2.5		Run 1		Run 1 recovery 34 in.
5		---trace gravel below 5 ft					
					Run 2 DB-167-6		Run 2 recovery 20 in.
		(2/8/2018) Practical refusal at 7 ft Groundwater not encountered	7.0				
10							
15							
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon		**Drilled by:** Stratus Corporation
Date Started: 2/8/18	**Coordinates:** 43.43443° N -124.24132° W (WGS 84)	
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.		**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols		

GRI

BORING DB-167

JULY 2018 JOB NO. 5764-1195 FIG. 67A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace silt, fine- to coarse-grained sand	1.5		Run 1		Run 1 recovery 22 in.
		SAND	2.0				
		Portland cement CONCRETE (6 in.)	2.5				
		SAND, light brown, fine grained			Run 2		Run 2 recovery 14 in.
5		---trace silt, contains wood debris below 5 ft		0.3			∇5.6 ft (2/8/2018)
					Run 3		Run 3 recovery 41 in.
10		---trace to some silt below 10 ft		0.9			
		---some silt, gray-brown below 12.5 ft			Run 4		Run 4 recovery 60 in.
					DB-168-13 ☒		
				0.9			
15		(2/8/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

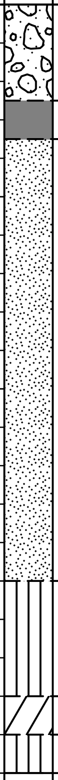
Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/8/18
Coordinates: 43.43419° N -124.24117° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-168

JULY 2018 JOB NO. 5764-1195 FIG. 68A

Surface Elevation: Not Available



DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand					
		Portland cement CONCRETE (6 in.)	2.5		Run 1		Run 1 recovery 31 in.
		SAND, light brown, fine grained, contains wood debris ---contains organics below 5 ft	3.5				
5							∇5.5 ft (2/8/2018)
				0.3	Run 2		Run 2 recovery 43 in. Slight sheen between depths of 8 to 15 ft
10		---trace silt, light brown-gray below 10.5 ft					
		---trace to some silt, light gray below 13 ft			Run 3 DB-169-12	☒	Run 3 recovery 60 in.
				0.2			
15		SILT, some fine-grained sand to sandy, trace to some clay, gray	15.0				
				0.4	DB-169-16	☒	
					Run 4		Run 4 recovery 28 in.
		CLAY, some silt, gray	18.0				
		SILT, some fine-grained sand to sandy, trace to some clay, gray	19.0	0.5			
20		(2/8/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/8/18 **Coordinates:** 43.43414° N -124.24111° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-169

JULY 2018 JOB NO. 5764-1195 FIG. 69A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand					
		SAND, light brown, fine grained	2.5		Run 1		Run 1 recovery 32 in.
5		---6-in.-thick silty organic layer at 4.5 ft ---light brown-gray, contains abundant wood debris below 5 ft					▽4.8 ft (2/8/2018)
				0.6	Run 2		Run 2 recovery 35 in.
10		---trace to some silt, gray-brown to gray, wood debris absent below 11 ft					
				1	Run 3		Run 3 recovery 55 in.
					DB-170-13 ☒		Slight sheen between depths of 12 to 20 ft
15		---some silt to silty, gray, contains organics below 15 ft		0.3			
					Run 4		Run 4 recovery 38 in.
		CLAY, trace to some silt, gray	18.0				
		SAND, some silt to silty, gray, fine grained, contains organics	18.5	0.7			
20		(2/8/2018)	20.0				
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/8/18 **Coordinates:** 43.43402° N -124.24122° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-170

JULY 2018 JOB NO. 5764-1195 FIG. 70A

DEPTH, FT	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	SAND, lgiht brown, fine grained					
				Run 1		Run 1 recovery 23 in.
						⊽3.5 ft (2/8/2018)
5						
	---trace silt, contains wood debris below 7 ft			Run 2		Run 2 recovery 54 in.
	---grades to light brown-gray below 8 ft		0.8			
10	---trace to some silt, gray below 10 ft					
				Run 3		Run 3 recovery 60 in.
				MO-171-13 ☒		
	Sandy SILT, some clay, gray, fine-grained sand, contains wood debris	14.0	0.8			
15	(2/8/2018)	15.0				
20						
25						
30						
35						
40						

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/8/18	**Coordinates:** 43.43379° N -124.24112° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING MO-171

JULY 2018 JOB NO. 5764-1195 FIG. 71A

DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Sandy GRAVEL, trace silt, fine- to coarse-grained sand					
	SAND, light brown, fine grained	1.5				
				Run 1		Run 1 recovery 32 in.
						▽3.8 ft (2/8/2018)
5	---trace silt, contains wood debris and organics below 5 ft		0.7			
				Run 2		Run 2 recovery 46 in.
10	---light gray-brown, wood debris absent below 10 ft		0.3			
				Run 3 MO-172-12		Run 3 recovery 60 in.
	---some silt below 14 ft		0.1			
15	(2/8/2018)	15.0				
20						
25						
30						
35						
40						

0

1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/8/18
Coordinates: 43.43364° N -124.24115° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING MO-172

JULY 2018 JOB NO. 5764-1195 FIG. 72A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, some silt to silty, fine- to coarse-grained sand			Run 1		Run 1 recovery 17 in. ∇3.3 ft (2/8/2018)
		SAND, light brown, fine grained	3.5				
5				0.2			
		---light brown-gray below 7.5 ft			Run 2		Run 2 recovery 23 in.
10		---trace to some silt below 10 ft		0.7			Steel fragment encountered at 10 ft
					Run 3		Run 3 recovery 60 in.
				0.7	MO-173-14 ☒		Slight sheen between depths of 14 to 15 ft
15		(2/8/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

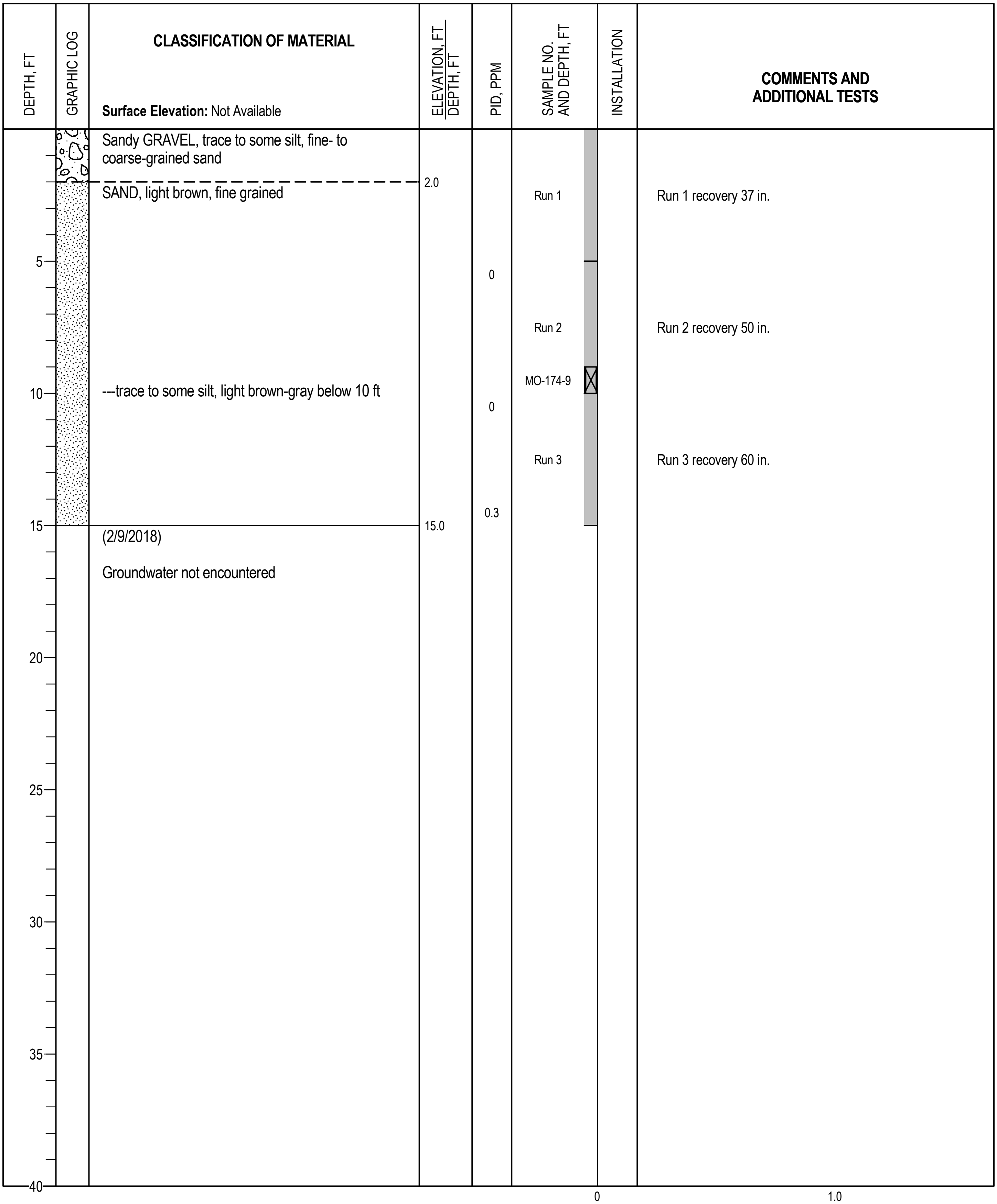
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/8/18	**Coordinates:** 43.43361° N -124.24093° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING MO-173

JULY 2018 JOB NO. 5764-1195 FIG. 73A



DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	COMMENTS AND ADDITIONAL TESTS
0	Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand				
2	SAND, light brown, fine grained	2.0		Run 1	Run 1 recovery 37 in.
5			0		
				Run 2	Run 2 recovery 50 in.
				MO-174-9	
10	---trace to some silt, light brown-gray below 10 ft		0		
				Run 3	Run 3 recovery 60 in.
			0.3		
15	(2/9/2018) Groundwater not encountered	15.0			
20					
25					
30					
35					
40					

Logged By: C. Smerdon
Drilled by: Stratus Corporation
Date Started: 2/9/18
Coordinates: 43.4333° N -124.24041° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING MO-174

JULY 2018 JOB NO. 5764-1195 FIG. 74A

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Surface Elevation: Not Available

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, some silt, fine- to coarse-grained sand	0.5				
		SAND, light brown, fine grained ---brown, contains organics below 2 ft ---organics absent below 3 ft		0.4	Run 1		Run 1 recovery 31 in. ∇ 3.1 ft (2/9/2018)
		Portland cement CONCRETE (8 in.)	4.0	0			
5		SAND, trace silt, light brown, fine grained	4.6				
		---gray, contains wood debris and organics			Run 2		Run 2 recovery 48 in.
10		---trace silt, light gray, organics and wood debris absent below 9.5 ft		0.2	MO-175-9 ☒		
		---some silt below 12 ft			Run 3		Run 3 recovery 60 in.
15		Silty CLAY, some fine-grained sand, gray	14.0 15.0	0.8			
		(2/9/2018)					
20							
25							
30							
35							
40							

0 1.0

Logged By: C. Smerdon	**Drilled by:** Stratus Corporation
Date Started: 2/9/18	**Coordinates:** 43.4337° N -124.24023° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING MO-175

JULY 2018 JOB NO. 5764-1195 FIG. 75A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand					
		SAND, light brown, fine grained	1.5				
					Run 1		Run 1 recovery 36 in.
							▽4.3 ft (2/9/2018)
5				0.5			
					Run 2		Run 2 recovery 48 in.
		---trace silt, light gray-brown, contains organics below 8.5 ft					
					SH-176-10 ☒		
10				0.6			
					Run 3		Run 3 recovery 60 in.
		---some silt, gray below 13 ft		0			
15		(2/9/2018)	15.0	0			
20							
25							
30							
35							
40							

0 1.0

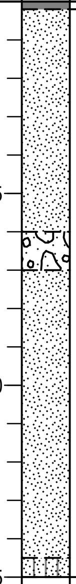
Logged By: C. Smerdon **Drilled by:** Stratus Corporation
Date Started: 2/9/18 **Coordinates:** 43.43433° N -124.24063° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING SH-176

JULY 2018 JOB NO. 5764-1195 FIG. 76A

Surface Elevation: Not Available



DEPTH, FT	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Portland cement CONCRETE (3 in.)	0.2				
	SAND, trace to some gravel, trace silt, light brown to gray, fine grained					▽1.7 ft (2/9/2018)
	---gravel absent below 2 ft		0	Run 1		Run 1 recovery 34 in.
				SH-177-5 ☒		
5	---2-in.-thick layer of sandy gravel at 5 ft					Slight sheen and odor at 5 ft
	----12-in.-thick layer of sandy gravel at 6 ft		0			
				Run 2		Run 2 recovery 45 in.
10			0			
				Run 3		Run 3 recovery 60 in.
	---silty below 14.5 ft		0			
15	(2/12/2018)	15.0				
20						
25						
30						
35						
40						

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/9/18	**Coordinates:** 43.43459° N -124.24055° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING SH-177

JULY 2018 JOB NO. 5764-1195 FIG. 77A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 30 in.
5				0			
		---contains gravel and concrete fragments below 6 ft		0	Run 2		Run 2 recovery 22 in.
		(2/12/2018)	7.0				
		Refusal on obstruction at 7 ft					
10		Groundwater not encountered					
15							
20							
25							
30							
35							
40							

0

1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/12/18
Coordinates: 43.43465° N -124.23872° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING SL-178

JULY 2018 JOB NO. 5764-1195 FIG. 78A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	▨	SAND, brown, fine grained					
	▨			0	Run 1		Run 1 recovery 31 in.
5	▨			0	Run 2		Run 2 recovery 18 in.
	▨			0			
		(2/12/2018)	7.0				
		Refusal on obstruction at 7 ft					
10		Groundwater not encountered					
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky **Drilled by:** Stratus Corporation

Date Started: 2/12/18 **Coordinates:** 43.43463° N -124.23869° W (WGS 84)

Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.

Note: See Legend for Explanation of Symbols

Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING SL-179

JULY 2018 JOB NO. 5764-1195 FIG. 79A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Portland cement CONCRETE (5.5 in.)	0.5				
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 22 in.
5		---gray below 5 ft					
				0			
		---contains wood debris below 6 ft					▽5.8 ft (2/12/2018) Moderate odor between depths of 6 to 10 ft
				20			
					Run 2		Run 2 recovery 27 in.
				2.8			
		---wood debris absent below 9 ft					
					SL-180-10 ☒		
10							
				0.5			
					Run 3		Run 3 recovery 41 in.
				0.2	SL-180-15 ☒		
15		(2/12/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/12/18	**Coordinates:** 43.43464° N -124.23874° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

BORING SL-180

JULY 2018 JOB NO. 5764-1195 FIG. 80A

Surface Elevation: Not Available

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Portland cement CONCRETE (5.5 in.)	0.5				
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 32 in.
5				0.4			
					Run 2		Run 2 recovery 41 in.
10		---gray below 10 ft		0.4			
		---dark gray below 12.5 ft			Run 3		Run 3 recovery 60 in.
				0.1	SL-181-15 ☒		
15		(2/12/2018) Depth to groundwater not measured due to caving, observed to be at least 5 ft below existing grade	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/12/18
Coordinates: 43.43458° N -124.23873° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:
Note: See Legend for Explanation of Symbols

GRI

BORING SL-181

JULY 2018 JOB NO. 5764-1195 FIG. 81A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Portland cement CONCRETE (2.5 in.)	0.2				▽0.7 ft (2/12/2018) Moderate to heavy sheen, moderate odor throughout Run 1 recovery 27 in.
		SAND, gray, fine grained			Run 1		
5			5.0	0.3	NL-182-5	☒	
		(2/12/2018) Refusal on obstruction at 5 ft					
10							
15							
20							
25							
30							
35							
40							

0 1.0

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/12/18
Coordinates: 43.43477° N -124.2387° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING NL-182

JULY 2018 JOB NO. 5764-1195 FIG. 82A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	■	Portland cement CONCRETE (6 in.)	0.5				
	▨	SAND, brown, fine grained					
	▨				Run 1		Run 1 recovery 10 in.
5	▨			0.3			
	▨				Run 2		Run 2 recovery 32 in.
	▨	---gray below 8 ft					
10	▨			0.3			
	▨				Run 3		Run 3 recovery 60 in.
	▨	---dark gray below 14 ft					
	▨			0.1	NL-183-15 ☒		
15		(2/12/2018) Depth to groundwater not measured due to caving, observed to be at least 5 ft below existing grade	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/12/18	**Coordinates:** 43.43476° N -124.23865° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING NL-183

JULY 2018 JOB NO. 5764-1195 FIG. 83A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		GRAVEL, some silt and fine-grained sand	0.5				
		SAND, brown, fine grained			Run 1		Run 1 recovery 28 in.
			4.0	1.4			
5		(2/12/2018) Refusal on obstruction at 4 ft Groundwater not encountered					
10							
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/12/18	**Coordinates:** 43.43428° N -124.23917° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING MS-184

JULY 2018 JOB NO. 5764-1195 FIG. 84A

Surface Elevation: Not Available

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand	0.5				▽0.5 ft (2/12/2018)
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 35 in.
		---2-in.-thick concrete layer at 4 ft					
					MS-185-4 ☒		
5				3.8			
					Run 2		Run 2 recovery 30 in.
		---6-in.-thick layer of gravelly sand with some silt at 8.5 ft					
10		---gray, contains wood debris below 9 ft					
				1.5			
					Run 3		Run 3 recovery 60 in.
		---trace to some silt, dark gray below 13 ft					
				2.1			
15		(2/12/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky **Drilled by:** Stratus Corporation
Date Started: 2/12/18 **Coordinates:** 43.43421° N -124.23917° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING MS-185

JULY 2018 JOB NO. 5764-1195 FIG. 85A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Silty GRAVEL, some fine-grained sand, brown	0.5				
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 34 in.
							▽3.8 ft (2/12/2018)
5				1.3			
					Run 2		Run 2 recovery 44 in.
		---light gray below 9.5 ft		1			
10		(2/12/2018)	10.0				
15							
20							
25							
30							
35							
40							

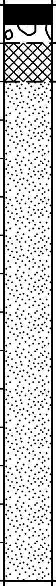
0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky **Drilled by:** Stratus Corporation
Date Started: 2/12/18 **Coordinates:** 43.43435° N -124.23838° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

BORING SL-186

JULY 2018 JOB NO. 5764-1195 FIG. 86A



DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	Asphalt concrete PAVEMENT (6 in.) over crushed rock BASE COURSE (6 in.)	1.0				
	Sandy GRAVEL, trace to some silt, fine-grained sand (Fill)	2.0		Run 1		Run 1 recovery 42 in.
	SAND, brown, fine grained, contains wood fragments					
5			1.5			
	---gray below 8 ft			Run 2		Run 2 recovery 52 in.
10			2.2			
			2.4	BP-187-11		
				Run 3		Run 3 recovery 60 in.
			0.3			
15	(2/12/2018) Depth to groundwater not measured due to caving, observed to be at least 5 ft below existing grade	15.0				
20						
25						
30						
35						
40						

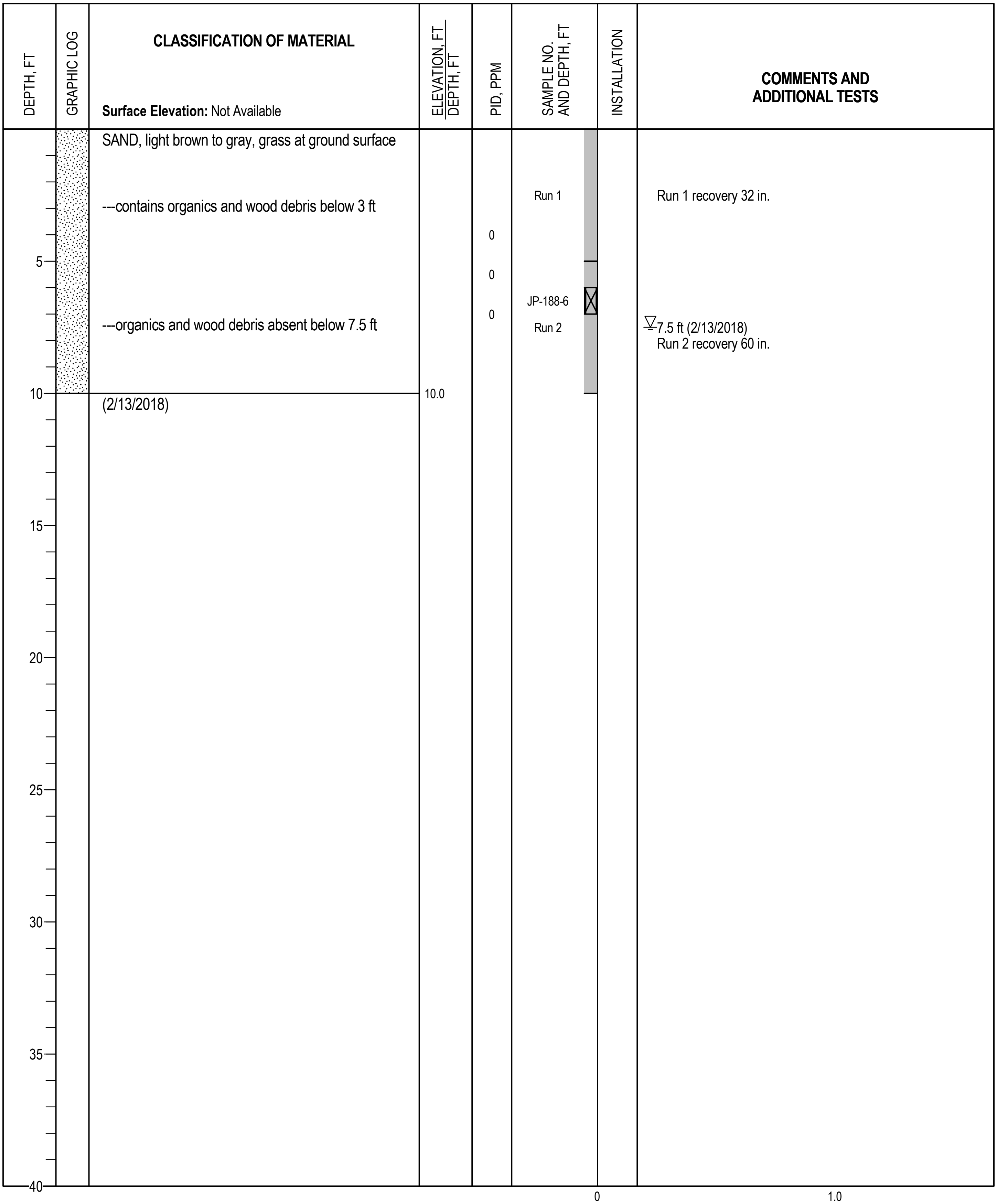
0 1.0

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/12/18
Coordinates: 43.43547° N -124.23909° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-187

JULY 2018 JOB NO. 5764-1195 FIG. 87A



CLASSIFICATION OF MATERIAL

Surface Elevation: Not Available

SAND, light brown to gray, grass at ground surface

---contains organics and wood debris below 3 ft

---organics and wood debris absent below 7.5 ft

10.0

(2/13/2018)

PID, PPM: 0, 0, 0

Run 1

JP-188-6

Run 2

COMMENTS AND ADDITIONAL TESTS

Run 1 recovery 32 in.

▽7.5 ft (2/13/2018)
Run 2 recovery 60 in.

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/13/18
Coordinates: 43.43105° N -124.23925° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING JP-188

JULY 2018 JOB NO. 5764-1195 FIG. 88A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, brown, fine grained, grass at ground surface					
		---contains organics and wood debris below 3 ft			Run 1		Run 1 recovery 32 in.
5				0			
		---dark gray, wood debris and organics absent below 7 ft			Run 2 JP-189-7		∇7.5 ft (2/13/2018) Run 2 recovery 46 in.
		---light gray below 8.5 ft					
				0			
10		(2/13/2018)	10.0				
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/13/18
Coordinates: 43.43142° N -124.23908° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING JP-189

JULY 2018 JOB NO. 5764-1195 FIG. 89A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 35 in.
		---contains organics and wood debris below 4.5 ft					
5				0			
		---dark gray, abundant organics below 6 ft					
					Run 2 JP-190-7		▽7.0 ft (2/13/2018) Run 2 recovery 48 in.
		---gray, organics absent below 8 ft					
				0			
10		(2/13/2018)	10.0				
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky **Drilled by:** Stratus Corporation
Date Started: 2/13/18 **Coordinates:** 43.43139° N -124.23854° W (WGS 84)
Drilling Method: Direct Push Probe **Hammer Type:** Not Used
Equipment: Geoprobe 7822DT **Weight:**
Hole Diameter: 3 in. **Drop:**
Note: See Legend for Explanation of Symbols **Energy Ratio:**

GRI

BORING JP-190

JULY 2018 JOB NO. 5764-1195 FIG. 90A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, brown, fine grained, contains organics					
					Run 1		Run 1 recovery 39 in.
		---organics absent below 3.5 ft					
5				0.6			▽6.0 ft (2/13/2018)
				0.6	Run 2		Run 2 recovery 49 in.
		---gray below 8 ft			JP-191-8 ☒		
10				0.8			
					Run 3		Run 3 recovery 52 in.
				2.1			
15		(2/13/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/13/18	**Coordinates:** 43.43274° N -124.24007° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING JP-191

JULY 2018 JOB NO. 5764-1195 FIG. 91A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, brown, fine grained, contains organics					
							▽1.5 ft (2/13/2018)
					Run 1		Run 1 recovery 39 in.
5				4.2			
							Slight odor between depths of 6 to 9 ft
				4			
					Run 2		Run 2 recovery 42 in.
					TS-192-8		
10		---gray below 10 ft					
				1.3			
		---6-in.-thick layer of silt with trace clay at 12.5 ft			Run 3		Run 3 recovery 44 in.
				0.5			
15		(2/13/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/13/18
Coordinates: 43.43581° N -124.24138° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING TS-192

JULY 2018 JOB NO. 5764-1195 FIG. 92A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		SAND, brown, fine grained, contains roots, organics, and wood debris					▽1.5 ft (2/13/2018)
					Run 1		Run 1 recovery 25 in.
5		---organics absent below 5 ft					
		---gray below 6 ft		1.5			
					Run 2		Run 2 recovery 60 in.
10							Slight odor between depths of 10 to 15 ft
				1			
		---6-in.-thick layer of silt with trace clay at 12.5 ft			Run 3		Run 3 recovery 60 in.
		---dark gray below 13 ft					
				1	TS-193-15		
15		(2/13/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky

Drilled by: Stratus Corporation

Date Started: 2/13/18

Coordinates: 43.43582° N -124.24134° W (WGS 84)

Drilling Method: Direct Push Probe

Equipment: Geoprobe 7822DT

Hole Diameter: 3 in.

Hammer Type: Not Used

Weight:

Drop:

Energy Ratio:

Note: See Legend for Explanation of Symbols

GRI

BORING TS-193

JULY 2018 JOB NO. 5764-1195 FIG. 93A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	▨	SAND, brown, fine grained, contains organics ---organics absent below 1 ft					
	▨				Run 1		∇2.0 ft (2/13/2018) Run 1 recovery 36 in.
5	▨			1			
	▨				Run 2		Run 2 recovery 44 in.
10	▨			1.6			
	▨	---gray below 11 ft					
	▨				Run 3		Run 3 recovery 47 in.
	▨	---3-in.-thick layer of silt with trace clay and sand at 13 ft			TS-194-13 ☒		
	▨			1			
15		(2/13/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/13/18	**Coordinates:** 43.43578° N -124.24126° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING TS-194

JULY 2018 JOB NO. 5764-1195 FIG. 94A

DEPTH, FT	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	SAND, brown, fine grained, contains organics ---organics absent below 1 ft					∇0.5 ft (2/13/2018)
				Run 1		Run 1 recovery 32 in.
5			0.5			
	---contains wood debris below 7.5 ft			Run 2		Run 2 recovery 32 in.
	---dark gray, wood debris absent below 8.5 ft					
			1.6			Slight odor at 9 ft
10			1.8			
				TS-195-11		
	---6-in.-thick layer of silt with some clay to clayey and trace sand, contains organics at 12.5 ft			Run 3		Run 3 recovery 60 in.
			1.1			
15	(2/13/2018)	15.0				
20						
25						
30						
35						
40						

0 1.0

Logged By: N. Utevsky **Drilled by:** Stratus Corporation
Date Started: 2/13/18 **Coordinates:** 43.43576° N -124.24134° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING TS-195

JULY 2018 JOB NO. 5764-1195 FIG. 95A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (6 in.) over crushed rock BASE COURSE (18 in.)					
		SAND, brown, fine grained, contains organics	2.0		Run 1		Run 1 recovery 42 in. ∇3.2 ft (2/13/2018)
5		---gray below 5.5 ft		3.4			
					Run 2		Run 2 recovery 41 in.
					CS-196-8		
10		---dark gray below 10.5 ft		0.3			
					Run 3		Run 3 recovery 43 in.
		----8-in.-thick layer of clayey silt at 13 ft					
				0.8			
15		(2/13/2018)	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky **Drilled by:** Stratus Corporation
Date Started: 2/13/18 **Coordinates:** 43.43584° N -124.2417° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING CS-196

JULY 2018 JOB NO. 5764-1195 FIG. 96A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (6 in.) over crushed rock BASE COURSE (12 in.)	1.5				
		SAND, brown, fine grained, contains organics			Run 1		Run 1 recovery 37 in.
5		---gray below 5.5 ft		0.5			
		---contains wood debris below 8 ft			Run 2 CS-197-7		Run 2 recovery 43 in.
		---wood debris absent below 9 ft					
10				0			
		----6-in.-thick layer of clayey silt at 13 ft			Run 3		Run 3 recovery 60 in.
15		(2/13/2018) Depth to groundwater not measured due to caving, observed to be at least 2 ft below existing grade	15.0				
20							
25							
30							
35							
40							

0 1.0

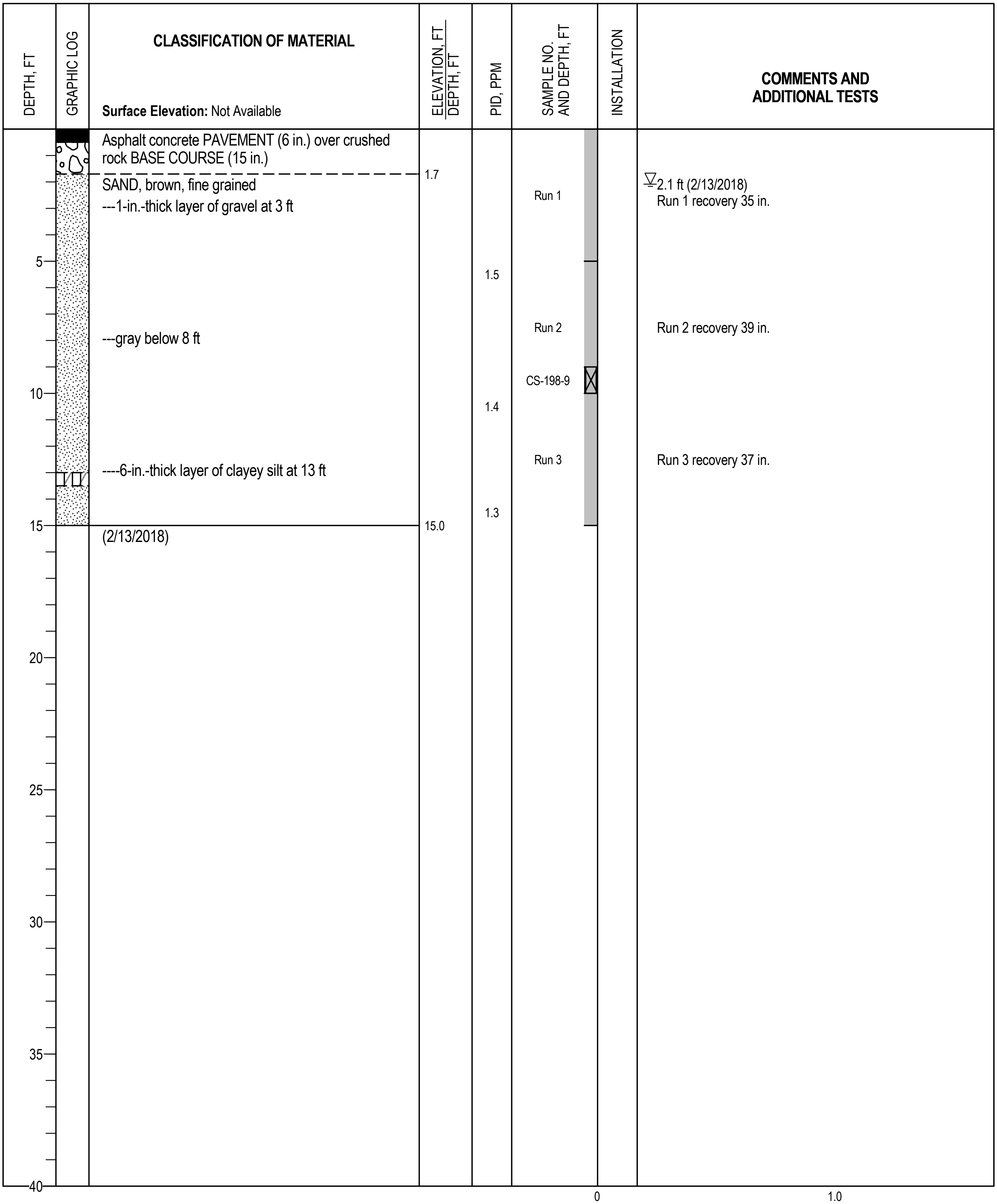
ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation	
Date Started: 2/13/18	**Coordinates:** 43.43593° N -124.24172° W (WGS 84)	
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.		**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols		

GRI

BORING CS-197

JULY 2018 JOB NO. 5764-1195 FIG. 97A



DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (6 in.) over crushed rock BASE COURSE (15 in.)	1.7				
		SAND, brown, fine grained ---1-in.-thick layer of gravel at 3 ft			Run 1		▽2.1 ft (2/13/2018) Run 1 recovery 35 in.
5				1.5			
		---gray below 8 ft			Run 2		Run 2 recovery 39 in.
					CS-198-9		
10				1.4			
		----6-in.-thick layer of clayey silt at 13 ft			Run 3		Run 3 recovery 37 in.
				1.3			
15		(2/13/2018)	15.0				
20							
25							
30							
35							
40							

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/13/18	**Coordinates:** 43.43585° N -124.24187° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING CS-198

JULY 2018 JOB NO. 5764-1195 FIG. 98A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Asphalt concrete PAVEMENT (3 in.)	0.3				
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 26 in.
5				0.7			
		---gray below 7.5 ft			Run 2		Run 2 recovery 40 in.
		---dark gray at 9.5 ft					
10				1.2			
					DB-199-11		
		Clayey SILT, gray to dark brown	12.0		Run 3		Run 3 recovery 34 in.
		SAND, trace silt, gray, fine grained	13.5	1			
15		(2/14/2018) Depth to groundwater not measured due to caving, observed to be at least 3 ft below existing grade	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/14/18
Coordinates: 43.43507° N -124.24255° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING DB-199

JULY 2018 JOB NO. 5764-1195 FIG. 99A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
		Portland cement CONCRETE (4 in.)	0.3				
		SAND, brown, fine grained					
					Run 1		Run 1 recovery 33 in.
		---dark brown below 4.5 ft					
5				1.7			
		---gray below 6 ft					Heavy odor and moderate sheen between depths of 6 to 9.5 ft
					Run 2		Run 2 recovery 32 in.
				13	BP-200-8		
10				1.2			
					Run 3		Run 3 recovery 30 in.
					BP-200-13		
		---6-in.-thick layer of silt with some clay to clayey and trace sand		0.9			
15		(2/14/2018) Depth to groundwater not measured due to caving, observed to be at least 3 ft below existing grade	15.0				
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/14/18
Coordinates: 43.43549° N -124.23949° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-200

JULY 2018 JOB NO. 5764-1195 FIG. 100A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	▨	SAND, brown, fine grained					
	▨	---contains possible asbestos fibers at 2.5 ft			Run 1		Run 1 recovery 30 in. Sample not opened due to possible asbestos
5		(2/14/2018) Groundwater not encountered	5.0				
10							
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky **Drilled by:** Stratus Corporation
Date Started: 2/14/18 **Coordinates:** 43.43533° N -124.23967° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING BP-201

JULY 2018 JOB NO. 5764-1195 FIG. 101A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
0	▨	SAND, brown, fine grained, contains organics, brick fragments, gravel, and scattered clay clods (Possible Fill)					
	▨				Run 1		▽2.0 ft (2/14/2018) Run 1 recovery 23 in.
	▨			0	BP-202-4 ☒		
5	▨	---fragments absent below 5 ft					
	▨				Run 2		Run 2 recovery 39 in.
	▨	---gray below 9 ft					
	▨			0.5	BP-202-10 ☒		
10		(2/14/2018)	10.0				
15							
20							
25							
30							
35							
40							

0 1.0

Logged By: N. Utevsky	**Drilled by:** Stratus Corporation
Date Started: 2/14/18	**Coordinates:** 43.43531° N -124.23965° W (WGS 84)
Drilling Method: Direct Push Probe **Equipment:** Geoprobe 7822DT **Hole Diameter:** 3 in.	**Hammer Type:** Not Used **Weight:** **Drop:** **Energy Ratio:**
Note: See Legend for Explanation of Symbols	

GRI

BORING BP-202

JULY 2018 JOB NO. 5764-1195 FIG. 102A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL **Surface Elevation:** Not Available	ELEVATION, FT / DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	■	Portland cement CONCRETE (10.5 in.)					
	░	SAND, brown, fine grained, contains organics	0.8				
	░				Run 1		Run 1 recovery 34 in.
5	░			1.3			
	░	---up to trace gravel below 6 ft					
	░	---gray below 7 ft					
	░				Run 2		Run 2 recovery 40 in.
	░			0.2	FO-203-9 ☒		
10		(2/14/2018) Depth to groundwater not measured due to caving, observed to be at least 4 ft below existing grade	10.0				
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky
Drilled by: Stratus Corporation
Date Started: 2/14/18
Coordinates: 43.43616° N -124.23934° W (WGS 84)
Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.
Note: See Legend for Explanation of Symbols
Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

GRI

BORING FO-203

JULY 2018 JOB NO. 5764-1195 FIG. 103A

DEPTH, FT	GRAPHIC LOG	CLASSIFICATION OF MATERIAL Surface Elevation: Not Available	ELEVATION, FT DEPTH, FT	PID, PPM	SAMPLE NO. AND DEPTH, FT	INSTALLATION	COMMENTS AND ADDITIONAL TESTS
	▨	SAND, brown, fine grained, contains wood debris and organics					
	▨				Run 1		Run 1 recovery 41 in. ∇ 3.0 ft (2/14/2018)
	▨	---organics and wood debris absent below 4.5 ft					
5	▨						
	▨	---gray below 6 ft					
	▨				Run 2		Run 2 recovery 42 in.
10		(2/14/2018)	10.0	1.4			
15							
20							
25							
30							
35							
40							

0 1.0

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

Logged By: N. Utevsky **Drilled by:** Stratus Corporation

Date Started: 2/14/18 **Coordinates:** 43.43631° N -124.24091° W (WGS 84)

Drilling Method: Direct Push Probe
Equipment: Geoprobe 7822DT
Hole Diameter: 3 in.

Hammer Type: Not Used
Weight:
Drop:
Energy Ratio:

Note: See Legend for Explanation of Symbols

GRI

BORING TS-204

JULY 2018 JOB NO. 5764-1195 FIG. 104A

APPENDIX B

Analytical Laboratory Reports

ANALYTICAL REPORT

February 07, 2018

GRI - Beaverton, OR

Sample Delivery Group:	L967603
Samples Received:	02/03/2018
Project Number:	5764-1195
Description:	5764-1195
Report To:	Nora Utevsky 9750 SW Nimbus Avenue Beaverton, OR 97008

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

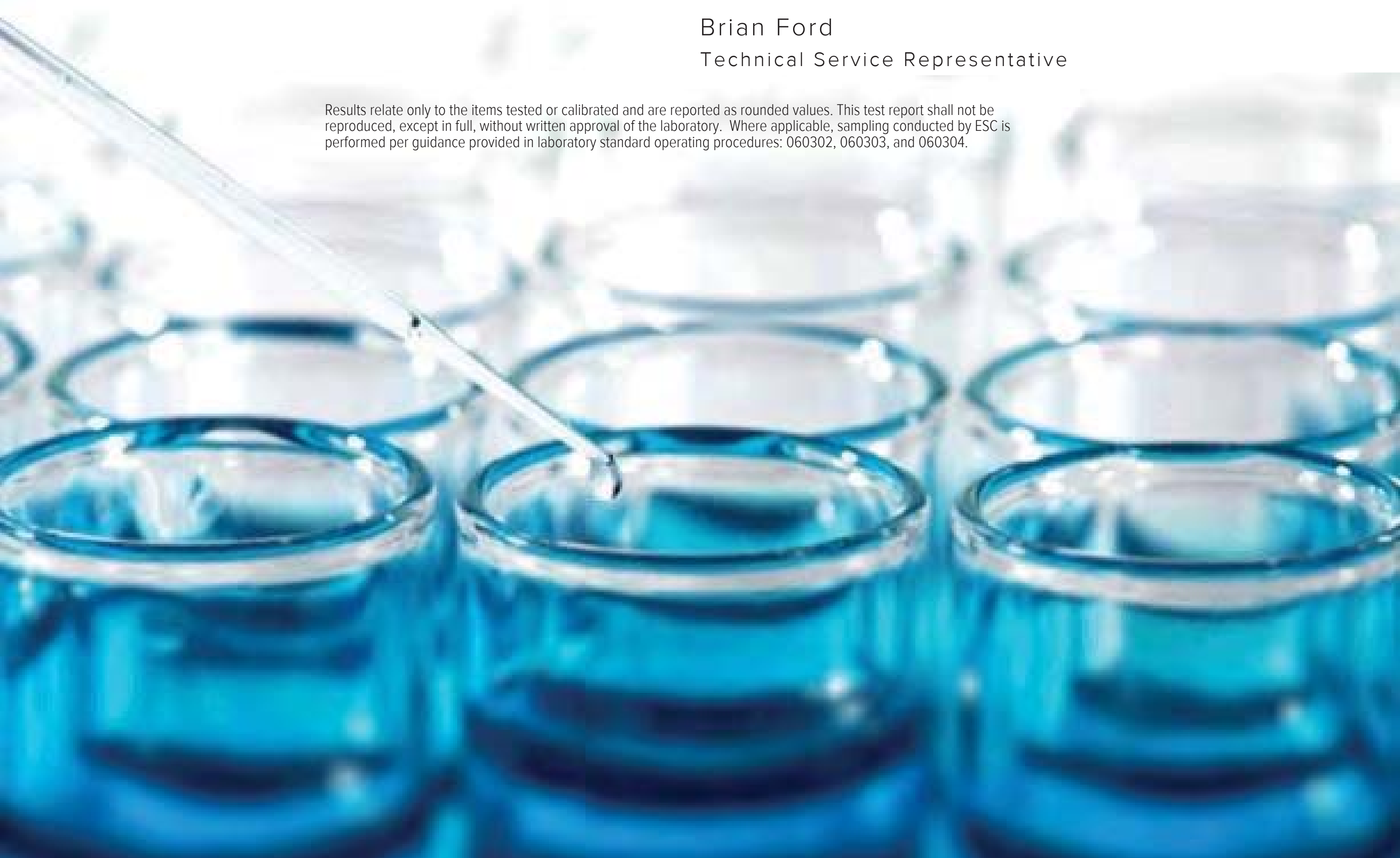


TABLE OF CONTENTS

BP-102-12 L967603-01 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/29/18 16:43	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1070464	1	02/06/18 14:30	02/06/18 14:43	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1069747	1	01/29/18 16:43	02/06/18 23:04	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1070279	1	01/29/18 16:43	02/06/18 14:19	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1070279	25	01/29/18 16:43	02/07/18 12:03	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1069926	20.8	02/05/18 08:38	02/05/18 16:02	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1069800	3	02/03/18 22:40	02/04/18 16:47	KM

BP-102-W L967603-02 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 10:02	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1069970	1	02/04/18 22:36	02/04/18 22:36	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1069715	1	02/04/18 03:22	02/04/18 03:22	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1069715	1	02/06/18 21:22	02/06/18 21:22	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1069801	1	02/05/18 05:43	02/05/18 20:40	LM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1069935	2	02/04/18 21:39	02/05/18 08:32	KM

FO-111-8 L967603-03 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 15:00	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1070464	1	02/06/18 14:30	02/06/18 14:43	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1069747	1	01/30/18 15:00	02/05/18 20:17	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1070279	25	01/30/18 15:00	02/06/18 13:58	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1070279	2500	01/30/18 15:00	02/07/18 02:22	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1069926	10	02/05/18 08:38	02/05/18 16:17	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1069800	3	02/03/18 22:40	02/04/18 17:09	KM

FO-111-W L967603-04 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 09:20	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1069970	1	02/04/18 23:00	02/04/18 23:00	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1069715	1	02/04/18 03:41	02/04/18 03:41	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1069715	1	02/06/18 21:42	02/06/18 21:42	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1069801	1	02/05/18 05:43	02/05/18 20:56	LM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1069935	1	02/04/18 21:39	02/05/18 03:45	KM

BP-119-W L967603-05 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 15:30	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1069970	1	02/04/18 23:23	02/04/18 23:23	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1069715	1	02/04/18 04:00	02/04/18 04:00	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1069715	1	02/06/18 22:02	02/06/18 22:02	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1069801	1	02/05/18 05:43	02/05/18 21:12	LM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1069935	5	02/04/18 21:39	02/05/18 09:37	KM

	Collected by	Collected date/time	Received date/time
BP-119-8 L967603-06 Solid	N. Utevsky	01/31/18 15:55	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1070464	1	02/06/18 14:30	02/06/18 14:43	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1069747	100	01/31/18 15:55	02/05/18 20:39	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1069771	100	01/31/18 15:55	02/03/18 23:18	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1069926	200	02/05/18 08:38	02/05/18 17:01	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1069800	100	02/03/18 22:40	02/06/18 04:14	DMG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1069800	60	02/03/18 22:40	02/04/18 17:31	KM

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	80.3		1	02/06/2018 14:43	WG1070464

Volatile Organic Compounds (GC) by Method NWTPHGX

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	0.803		0.0422	0.125	1	02/06/2018 23:04	WG1069747
(S) a,a,a-Trifluorotoluene(FID)	*97.2*			*77.0-120*		*02/06/2018 23:04*	WG1069747

Volatile Organic Compounds (GC/MS) by Method 8260B

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0125	0.0623	1	02/06/2018 14:19	WG1070279
Acrylonitrile	U		0.00223	0.0125	1	02/06/2018 14:19	WG1070279
Benzene	0.000374	J	0.000336	0.00125	1	02/06/2018 14:19	WG1070279
Bromobenzene	U		0.000354	0.00125	1	02/06/2018 14:19	WG1070279
Bromodichloromethane	U		0.000316	0.00125	1	02/06/2018 14:19	WG1070279
Bromoform	U		0.000528	0.00125	1	02/06/2018 14:19	WG1070279
Bromomethane	U		0.00167	0.00623	1	02/06/2018 14:19	WG1070279
n-Butylbenzene	U		0.000321	0.00125	1	02/06/2018 14:19	WG1070279
sec-Butylbenzene	U		0.000250	0.00125	1	02/06/2018 14:19	WG1070279
tert-Butylbenzene	U		0.000257	0.00125	1	02/06/2018 14:19	WG1070279
Carbon tetrachloride	U		0.000409	0.00125	1	02/06/2018 14:19	WG1070279
Chlorobenzene	U		0.000264	0.00125	1	02/06/2018 14:19	WG1070279
Chlorodibromomethane	U		0.000465	0.00125	1	02/06/2018 14:19	WG1070279
Chloroethane	U		0.00118	0.00623	1	02/06/2018 14:19	WG1070279
Chloroform	U		0.000285	0.00623	1	02/06/2018 14:19	WG1070279
Chloromethane	U		0.000467	0.00311	1	02/06/2018 14:19	WG1070279
2-Chlorotoluene	U		0.000375	0.00125	1	02/06/2018 14:19	WG1070279
4-Chlorotoluene	U		0.000299	0.00125	1	02/06/2018 14:19	WG1070279
1,2-Dibromo-3-Chloropropane	U		0.00131	0.00623	1	02/06/2018 14:19	WG1070279
1,2-Dibromoethane	U		0.000427	0.00125	1	02/06/2018 14:19	WG1070279
Dibromomethane	U		0.000476	0.00125	1	02/06/2018 14:19	WG1070279
1,2-Dichlorobenzene	U		0.000380	0.00125	1	02/06/2018 14:19	WG1070279
1,3-Dichlorobenzene	U		0.000298	0.00125	1	02/06/2018 14:19	WG1070279
1,4-Dichlorobenzene	U		0.000281	0.00125	1	02/06/2018 14:19	WG1070279
Dichlorodifluoromethane	U		0.000888	0.00623	1	02/06/2018 14:19	WG1070279
1,1-Dichloroethane	U		0.000248	0.00125	1	02/06/2018 14:19	WG1070279
1,2-Dichloroethane	U		0.000330	0.00125	1	02/06/2018 14:19	WG1070279
1,1-Dichloroethene	U		0.000377	0.00125	1	02/06/2018 14:19	WG1070279
cis-1,2-Dichloroethene	U		0.000293	0.00125	1	02/06/2018 14:19	WG1070279
trans-1,2-Dichloroethene	U		0.000329	0.00125	1	02/06/2018 14:19	WG1070279
1,2-Dichloropropane	U		0.000446	0.00125	1	02/06/2018 14:19	WG1070279
1,1-Dichloropropene	U		0.000395	0.00125	1	02/06/2018 14:19	WG1070279
1,3-Dichloropropane	U		0.000258	0.00125	1	02/06/2018 14:19	WG1070279
cis-1,3-Dichloropropene	U		0.000326	0.00125	1	02/06/2018 14:19	WG1070279
trans-1,3-Dichloropropene	U		0.000333	0.00125	1	02/06/2018 14:19	WG1070279
2,2-Dichloropropane	U		0.000347	0.00125	1	02/06/2018 14:19	WG1070279
Di-isopropyl ether	U		0.000309	0.00125	1	02/06/2018 14:19	WG1070279
Ethylbenzene	U		0.000370	0.00125	1	02/06/2018 14:19	WG1070279
Hexachloro-1,3-butadiene	U		0.000426	0.00125	1	02/06/2018 14:19	WG1070279
Isopropylbenzene	U		0.000303	0.00125	1	02/06/2018 14:19	WG1070279
p-Isopropyltoluene	U		0.000254	0.00125	1	02/06/2018 14:19	WG1070279
2-Butanone (MEK)	U		0.00583	0.0125	1	02/06/2018 14:19	WG1070279
Methylene Chloride	U		0.00125	0.00623	1	02/06/2018 14:19	WG1070279
4-Methyl-2-pentanone (MIBK)	U		0.00234	0.0125	1	02/06/2018 14:19	WG1070279

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000264	0.00125	1	02/06/2018 14:19	WG1070279
Naphthalene	0.0636	J	0.0311	0.156	25	02/07/2018 12:03	WG1070279
n-Propylbenzene	U		0.000257	0.00125	1	02/06/2018 14:19	WG1070279
Styrene	U		0.000291	0.00125	1	02/06/2018 14:19	WG1070279
1,1,1,2-Tetrachloroethane	U		0.000329	0.00125	1	02/06/2018 14:19	WG1070279
1,1,2,2-Tetrachloroethane	U		0.000455	0.00125	1	02/06/2018 14:19	WG1070279
1,1,2-Trichlorotrifluoroethane	U		0.000455	0.00125	1	02/06/2018 14:19	WG1070279
Tetrachloroethene	U		0.000344	0.00125	1	02/06/2018 14:19	WG1070279
Toluene	U		0.000541	0.00623	1	02/06/2018 14:19	WG1070279
1,2,3-Trichlorobenzene	U		0.000381	0.00125	1	02/06/2018 14:19	WG1070279
1,2,4-Trichlorobenzene	U		0.000483	0.00125	1	02/06/2018 14:19	WG1070279
1,1,1-Trichloroethane	U		0.000356	0.00125	1	02/06/2018 14:19	WG1070279
1,1,2-Trichloroethane	U		0.000345	0.00125	1	02/06/2018 14:19	WG1070279
Trichloroethene	U		0.000347	0.00125	1	02/06/2018 14:19	WG1070279
Trichlorofluoromethane	U		0.000476	0.00623	1	02/06/2018 14:19	WG1070279
1,2,3-Trichloropropane	U		0.000923	0.00311	1	02/06/2018 14:19	WG1070279
1,2,4-Trimethylbenzene	0.000299	J	0.000263	0.00125	1	02/06/2018 14:19	WG1070279
1,2,3-Trimethylbenzene	U		0.000357	0.00125	1	02/06/2018 14:19	WG1070279
1,3,5-Trimethylbenzene	0.000368	J	0.000331	0.00125	1	02/06/2018 14:19	WG1070279
Vinyl chloride	U		0.000362	0.00125	1	02/06/2018 14:19	WG1070279
Xylenes, Total	U		0.000869	0.00374	1	02/06/2018 14:19	WG1070279
(S) Toluene-d8	*87.4*			*80.0-120*		*02/06/2018 14:19*	WG1070279
(S) Toluene-d8	*42.2*	J2		*80.0-120*		*02/07/2018 12:03*	WG1070279
(S) Dibromofluoromethane	*95.6*			*74.0-131*		*02/07/2018 12:03*	WG1070279
(S) Dibromofluoromethane	*117*			*74.0-131*		*02/06/2018 14:19*	WG1070279
(S) 4-Bromofluorobenzene	*130*			*64.0-132*		*02/06/2018 14:19*	WG1070279
(S) 4-Bromofluorobenzene	*102*			*64.0-132*		*02/07/2018 12:03*	WG1070279

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	697	J3	34.1	104	20.8	02/05/2018 16:02	WG1069926
Residual Range Organics (RRO)	757	J3	85.4	259	20.8	02/05/2018 16:02	WG1069926
(S) o-Terphenyl	*89.0*			*18.0-148*		*02/05/2018 16:02*	WG1069926

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0739		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Acenaphthene	0.0915		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Acenaphthylene	U		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Benzo(a)anthracene	0.00733	J	0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Benzo(a)pyrene	0.00403	J	0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Benzo(b)fluoranthene	U		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Benzo(g,h,i)perylene	0.00421	J	0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Benzo(k)fluoranthene	U		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Chrysene	0.00691	J	0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Dibenz(a,h)anthracene	U		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Fluoranthene	0.0217	J	0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Fluorene	0.0308		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Indeno(1,2,3-cd)pyrene	U		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Naphthalene	0.165		0.00747	0.0747	3	02/04/2018 16:47	WG1069800
Phenanthrene	0.139		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
Pyrene	0.0641		0.00224	0.0224	3	02/04/2018 16:47	WG1069800
1-Methylnaphthalene	0.321		0.00747	0.0747	3	02/04/2018 16:47	WG1069800

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	0.409		0.00747	0.0747	3	02/04/2018 16:47	WG1069800
2-Chloronaphthalene	U		0.00747	0.0747	3	02/04/2018 16:47	WG1069800
(S) Nitrobenzene-d5	*63.5*			*14.0-149*		*02/04/2018 16:47*	WG1069800
(S) 2-Fluorobiphenyl	*70.1*			*34.0-125*		*02/04/2018 16:47*	WG1069800
(S) p-Terphenyl-d14	*60.1*			*23.0-120*		*02/04/2018 16:47*	WG1069800

Sample Narrative:

L967603-01 WG1069800: Dilution due to sample volume

Volatile Organic Compounds (GC) by Method NWTPHGX

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	02/04/2018 22:36	WG1069970
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-122*		*02/04/2018 22:36*	WG1069970

Volatile Organic Compounds (GC/MS) by Method 8260B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	02/04/2018 03:22	WG1069715
Acrolein	U	J4	8.87	50.0	1	02/04/2018 03:22	WG1069715
Acrylonitrile	U		1.87	10.0	1	02/04/2018 03:22	WG1069715
Benzene	U		0.331	1.00	1	02/04/2018 03:22	WG1069715
Bromobenzene	U		0.352	1.00	1	02/04/2018 03:22	WG1069715
Bromodichloromethane	U		0.380	1.00	1	02/04/2018 03:22	WG1069715
Bromoform	U		0.469	1.00	1	02/04/2018 03:22	WG1069715
Bromomethane	U	J3	0.866	5.00	1	02/04/2018 03:22	WG1069715
n-Butylbenzene	U		0.361	1.00	1	02/04/2018 03:22	WG1069715
sec-Butylbenzene	U		0.365	1.00	1	02/04/2018 03:22	WG1069715
tert-Butylbenzene	U		0.399	1.00	1	02/04/2018 03:22	WG1069715
Carbon tetrachloride	U		0.379	1.00	1	02/04/2018 03:22	WG1069715
Chlorobenzene	U		0.348	1.00	1	02/04/2018 03:22	WG1069715
Chlorodibromomethane	U		0.327	1.00	1	02/04/2018 03:22	WG1069715
Chloroethane	U	J3	0.453	5.00	1	02/04/2018 03:22	WG1069715
Chloroform	U		0.324	5.00	1	02/04/2018 03:22	WG1069715
Chloromethane	U	J3 J4	0.276	2.50	1	02/04/2018 03:22	WG1069715
2-Chlorotoluene	U		0.375	1.00	1	02/04/2018 03:22	WG1069715
4-Chlorotoluene	U		0.351	1.00	1	02/04/2018 03:22	WG1069715
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	02/04/2018 03:22	WG1069715
1,2-Dibromoethane	U		0.381	1.00	1	02/04/2018 03:22	WG1069715
Dibromomethane	U		0.346	1.00	1	02/04/2018 03:22	WG1069715
1,2-Dichlorobenzene	U		0.349	1.00	1	02/04/2018 03:22	WG1069715
1,3-Dichlorobenzene	U		0.220	1.00	1	02/04/2018 03:22	WG1069715
1,4-Dichlorobenzene	U		0.274	1.00	1	02/04/2018 03:22	WG1069715
Dichlorodifluoromethane	U		0.551	5.00	1	02/06/2018 21:22	WG1069715
1,1-Dichloroethane	U		0.259	1.00	1	02/04/2018 03:22	WG1069715
1,2-Dichloroethane	U		0.361	1.00	1	02/04/2018 03:22	WG1069715
1,1-Dichloroethene	U	J3	0.398	1.00	1	02/04/2018 03:22	WG1069715
cis-1,2-Dichloroethene	U		0.260	1.00	1	02/04/2018 03:22	WG1069715
trans-1,2-Dichloroethene	U		0.396	1.00	1	02/04/2018 03:22	WG1069715
1,2-Dichloropropane	U		0.306	1.00	1	02/04/2018 03:22	WG1069715
1,1-Dichloropropene	U		0.352	1.00	1	02/04/2018 03:22	WG1069715
1,3-Dichloropropane	U		0.366	1.00	1	02/04/2018 03:22	WG1069715
cis-1,3-Dichloropropene	U		0.418	1.00	1	02/04/2018 03:22	WG1069715
trans-1,3-Dichloropropene	U		0.419	1.00	1	02/04/2018 03:22	WG1069715
2,2-Dichloropropane	U	J3	0.321	1.00	1	02/04/2018 03:22	WG1069715
Di-isopropyl ether	U		0.320	1.00	1	02/04/2018 03:22	WG1069715
Ethylbenzene	U		0.384	1.00	1	02/04/2018 03:22	WG1069715
Hexachloro-1,3-butadiene	U		0.256	1.00	1	02/04/2018 03:22	WG1069715
Isopropylbenzene	U		0.326	1.00	1	02/04/2018 03:22	WG1069715
p-Isopropyltoluene	U		0.350	1.00	1	02/04/2018 03:22	WG1069715
2-Butanone (MEK)	U		3.93	10.0	1	02/04/2018 03:22	WG1069715
Methylene Chloride	U		1.00	5.00	1	02/04/2018 03:22	WG1069715
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	02/04/2018 03:22	WG1069715
Methyl tert-butyl ether	U		0.367	1.00	1	02/04/2018 03:22	WG1069715
Naphthalene	U		1.00	5.00	1	02/04/2018 03:22	WG1069715
n-Propylbenzene	U		0.349	1.00	1	02/04/2018 03:22	WG1069715

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Styrene	U		0.307	1.00	1	02/04/2018 03:22	WG1069715
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	02/04/2018 03:22	WG1069715
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	02/04/2018 03:22	WG1069715
1,1,2-Trichlorotrifluoroethane	U	J3	0.303	1.00	1	02/04/2018 03:22	WG1069715
Tetrachloroethene	U		0.372	1.00	1	02/04/2018 03:22	WG1069715
Toluene	U		0.412	1.00	1	02/04/2018 03:22	WG1069715
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/04/2018 03:22	WG1069715
1,2,4-Trichlorobenzene	U		0.355	1.00	1	02/04/2018 03:22	WG1069715
1,1,1-Trichloroethane	U		0.319	1.00	1	02/04/2018 03:22	WG1069715
1,1,2-Trichloroethane	U		0.383	1.00	1	02/04/2018 03:22	WG1069715
Trichloroethene	U		0.398	1.00	1	02/04/2018 03:22	WG1069715
Trichlorofluoromethane	U	J3	1.20	5.00	1	02/04/2018 03:22	WG1069715
1,2,3-Trichloropropane	U		0.807	2.50	1	02/04/2018 03:22	WG1069715
1,2,4-Trimethylbenzene	U		0.373	1.00	1	02/04/2018 03:22	WG1069715
1,2,3-Trimethylbenzene	U		0.321	1.00	1	02/04/2018 03:22	WG1069715
1,3,5-Trimethylbenzene	U		0.387	1.00	1	02/04/2018 03:22	WG1069715
Vinyl chloride	U	J3 J4	0.259	1.00	1	02/04/2018 03:22	WG1069715
Xylenes, Total	U		1.06	3.00	1	02/04/2018 03:22	WG1069715
(S) Toluene-d8	*99.0*			*80.0-120*		*02/06/2018 21:22*	WG1069715
(S) Toluene-d8	*102*			*80.0-120*		*02/04/2018 03:22*	WG1069715
(S) Dibromofluoromethane	*88.1*			*76.0-123*		*02/04/2018 03:22*	WG1069715
(S) Dibromofluoromethane	*93.1*			*76.0-123*		*02/06/2018 21:22*	WG1069715
(S) 4-Bromofluorobenzene	*98.1*			*80.0-120*		*02/04/2018 03:22*	WG1069715
(S) 4-Bromofluorobenzene	*106*			*80.0-120*		*02/06/2018 21:22*	WG1069715

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	42.8	J	33.0	100	1	02/05/2018 20:40	WG1069801
Residual Range Organics (RRO)	U		82.5	250	1	02/05/2018 20:40	WG1069801
(S) o-Terphenyl	*86.1*			*31.0-160*		*02/05/2018 20:40*	WG1069801

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0280	0.100	2	02/05/2018 08:32	WG1069935
Acenaphthene	U		0.0200	0.100	2	02/05/2018 08:32	WG1069935
Acenaphthylene	U		0.0240	0.100	2	02/05/2018 08:32	WG1069935
Benzo(a)anthracene	U		0.00820	0.100	2	02/05/2018 08:32	WG1069935
Benzo(a)pyrene	U		0.0232	0.100	2	02/05/2018 08:32	WG1069935
Benzo(b)fluoranthene	0.00680	B J	0.00424	0.100	2	02/05/2018 08:32	WG1069935
Benzo(g,h,i)perylene	0.00662	B J	0.00454	0.100	2	02/05/2018 08:32	WG1069935
Benzo(k)fluoranthene	U		0.0272	0.100	2	02/05/2018 08:32	WG1069935
Chrysene	U		0.0216	0.100	2	02/05/2018 08:32	WG1069935
Dibenz(a,h)anthracene	U		0.00792	0.100	2	02/05/2018 08:32	WG1069935
Fluoranthene	U		0.0314	0.100	2	02/05/2018 08:32	WG1069935
Fluorene	U		0.0170	0.100	2	02/05/2018 08:32	WG1069935
Indeno(1,2,3-cd)pyrene	U		0.0296	0.100	2	02/05/2018 08:32	WG1069935
Naphthalene	0.0978	B J	0.0396	0.500	2	02/05/2018 08:32	WG1069935
Phenanthrene	U		0.0164	0.100	2	02/05/2018 08:32	WG1069935
Pyrene	U		0.0234	0.100	2	02/05/2018 08:32	WG1069935
1-Methylnaphthalene	U		0.0164	0.500	2	02/05/2018 08:32	WG1069935
2-Methylnaphthalene	U		0.0180	0.500	2	02/05/2018 08:32	WG1069935
2-Chloronaphthalene	U		0.0129	0.500	2	02/05/2018 08:32	WG1069935
(S) Nitrobenzene-d5	*82.0*			*31.0-160*		*02/05/2018 08:32*	WG1069935

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) 2-Fluorobiphenyl	*102*			*48.0-148*		*02/05/2018 08:32*	WG1069935
(S) p-Terphenyl-d14	*73.4*			*37.0-146*		*02/05/2018 08:32*	WG1069935

Sample Narrative:

L967603-02 WG1069935: Dilution due to matrix impact during extraction procedure

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	81.8		1	02/06/2018 14:43	WG1070464

Volatile Organic Compounds (GC) by Method NWTPHGX

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.66		0.0414	0.122	1	02/05/2018 20:17	WG1069747
(S) a,a,a-Trifluorotoluene(FID)	*94.2*			*77.0-120*		*02/05/2018 20:17*	WG1069747

Volatile Organic Compounds (GC/MS) by Method 8260B

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.306	1.53	25	02/06/2018 13:58	WG1070279
Acrylonitrile	U		0.0548	0.306	25	02/06/2018 13:58	WG1070279
Benzene	U		0.00825	0.0306	25	02/06/2018 13:58	WG1070279
Bromobenzene	U		0.00868	0.0306	25	02/06/2018 13:58	WG1070279
Bromodichloromethane	U		0.00776	0.0306	25	02/06/2018 13:58	WG1070279
Bromoform	U		0.0130	0.0306	25	02/06/2018 13:58	WG1070279
Bromomethane	U		0.0410	0.153	25	02/06/2018 13:58	WG1070279
n-Butylbenzene	U		0.00789	0.0306	25	02/06/2018 13:58	WG1070279
sec-Butylbenzene	0.0797		0.00614	0.0306	25	02/06/2018 13:58	WG1070279
tert-Butylbenzene	U		0.00630	0.0306	25	02/06/2018 13:58	WG1070279
Carbon tetrachloride	U		0.0100	0.0306	25	02/06/2018 13:58	WG1070279
Chlorobenzene	U		0.00648	0.0306	25	02/06/2018 13:58	WG1070279
Chlorodibromomethane	U		0.0114	0.0306	25	02/06/2018 13:58	WG1070279
Chloroethane	U		0.0289	0.153	25	02/06/2018 13:58	WG1070279
Chloroform	U		0.00699	0.153	25	02/06/2018 13:58	WG1070279
Chloromethane	U		0.0115	0.0764	25	02/06/2018 13:58	WG1070279
2-Chlorotoluene	U		0.00919	0.0306	25	02/06/2018 13:58	WG1070279
4-Chlorotoluene	U		0.00734	0.0306	25	02/06/2018 13:58	WG1070279
1,2-Dibromo-3-Chloropropane	U		0.0320	0.153	25	02/06/2018 13:58	WG1070279
1,2-Dibromoethane	U		0.0105	0.0306	25	02/06/2018 13:58	WG1070279
Dibromomethane	U		0.0117	0.0306	25	02/06/2018 13:58	WG1070279
1,2-Dichlorobenzene	U		0.00932	0.0306	25	02/06/2018 13:58	WG1070279
1,3-Dichlorobenzene	U		0.00731	0.0306	25	02/06/2018 13:58	WG1070279
1,4-Dichlorobenzene	U		0.00691	0.0306	25	02/06/2018 13:58	WG1070279
Dichlorodifluoromethane	U		0.0218	0.153	25	02/06/2018 13:58	WG1070279
1,1-Dichloroethane	U		0.00609	0.0306	25	02/06/2018 13:58	WG1070279
1,2-Dichloroethane	U		0.00809	0.0306	25	02/06/2018 13:58	WG1070279
1,1-Dichloroethene	U		0.00927	0.0306	25	02/06/2018 13:58	WG1070279
cis-1,2-Dichloroethene	U		0.00719	0.0306	25	02/06/2018 13:58	WG1070279
trans-1,2-Dichloroethene	U		0.00807	0.0306	25	02/06/2018 13:58	WG1070279
1,2-Dichloropropane	U		0.0109	0.0306	25	02/06/2018 13:58	WG1070279
1,1-Dichloropropene	U		0.00968	0.0306	25	02/06/2018 13:58	WG1070279
1,3-Dichloropropane	U		0.00633	0.0306	25	02/06/2018 13:58	WG1070279
cis-1,3-Dichloropropene	U		0.00801	0.0306	25	02/06/2018 13:58	WG1070279
trans-1,3-Dichloropropene	U		0.00817	0.0306	25	02/06/2018 13:58	WG1070279
2,2-Dichloropropane	U		0.00853	0.0306	25	02/06/2018 13:58	WG1070279
Di-isopropyl ether	U		0.00758	0.0306	25	02/06/2018 13:58	WG1070279
Ethylbenzene	0.0158	J	0.00907	0.0306	25	02/06/2018 13:58	WG1070279
Hexachloro-1,3-butadiene	U		0.0105	0.0306	25	02/06/2018 13:58	WG1070279
Isopropylbenzene	0.0297	J	0.00743	0.0306	25	02/06/2018 13:58	WG1070279
p-Isopropyltoluene	0.0133	J	0.00624	0.0306	25	02/06/2018 13:58	WG1070279
2-Butanone (MEK)	U		0.143	0.306	25	02/06/2018 13:58	WG1070279
Methylene Chloride	U		0.0306	0.153	25	02/06/2018 13:58	WG1070279
4-Methyl-2-pentanone (MIBK)	U		0.0575	0.306	25	02/06/2018 13:58	WG1070279

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00648	0.0306	25	02/06/2018 13:58	WG1070279
Naphthalene	46.8		3.06	15.3	2500	02/07/2018 02:22	WG1070279
n-Propylbenzene	0.00794	J	0.00630	0.0306	25	02/06/2018 13:58	WG1070279
Styrene	U		0.00715	0.0306	25	02/06/2018 13:58	WG1070279
1,1,1,2-Tetrachloroethane	U		0.00807	0.0306	25	02/06/2018 13:58	WG1070279
1,1,2,2-Tetrachloroethane	U		0.0112	0.0306	25	02/06/2018 13:58	WG1070279
1,1,2-Trichlorotrifluoroethane	U		0.0112	0.0306	25	02/06/2018 13:58	WG1070279
Tetrachloroethene	U		0.00844	0.0306	25	02/06/2018 13:58	WG1070279
Toluene	U		0.0132	0.153	25	02/06/2018 13:58	WG1070279
1,2,3-Trichlorobenzene	U		0.00935	0.0306	25	02/06/2018 13:58	WG1070279
1,2,4-Trichlorobenzene	U		0.0119	0.0306	25	02/06/2018 13:58	WG1070279
1,1,1-Trichloroethane	U		0.00874	0.0306	25	02/06/2018 13:58	WG1070279
1,1,2-Trichloroethane	U		0.00846	0.0306	25	02/06/2018 13:58	WG1070279
Trichloroethene	U		0.00853	0.0306	25	02/06/2018 13:58	WG1070279
Trichlorofluoromethane	U		0.0117	0.153	25	02/06/2018 13:58	WG1070279
1,2,3-Trichloropropane	U		0.0226	0.0764	25	02/06/2018 13:58	WG1070279
1,2,4-Trimethylbenzene	0.0546		0.00646	0.0306	25	02/06/2018 13:58	WG1070279
1,2,3-Trimethylbenzene	0.0263	J	0.00878	0.0306	25	02/06/2018 13:58	WG1070279
1,3,5-Trimethylbenzene	0.0261	J	0.00813	0.0306	25	02/06/2018 13:58	WG1070279
Vinyl chloride	U		0.00890	0.0306	25	02/06/2018 13:58	WG1070279
Xylenes, Total	0.0325	J	0.0213	0.0917	25	02/06/2018 13:58	WG1070279
(S) Toluene-d8	*101*			*80.0-120*		*02/07/2018 02:22*	WG1070279
(S) Toluene-d8	*73.0*	J2		*80.0-120*		*02/06/2018 13:58*	WG1070279
(S) Dibromofluoromethane	*100*			*74.0-131*		*02/06/2018 13:58*	WG1070279
(S) Dibromofluoromethane	*102*			*74.0-131*		*02/07/2018 02:22*	WG1070279
(S) 4-Bromofluorobenzene	*103*			*64.0-132*		*02/07/2018 02:22*	WG1070279
(S) 4-Bromofluorobenzene	*100*			*64.0-132*		*02/06/2018 13:58*	WG1070279

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	375	J3	16.1	48.9	10	02/05/2018 16:17	WG1069926
Residual Range Organics (RRO)	477	J3	40.3	122	10	02/05/2018 16:17	WG1069926
(S) o-Terphenyl	*93.6*			*18.0-148*		*02/05/2018 16:17*	WG1069926

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.173		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Acenaphthene	0.267		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Acenaphthylene	U		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Benzo(a)anthracene	0.0626		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Benzo(a)pyrene	0.0234		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Benzo(b)fluoranthene	0.0275		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Benzo(g,h,i)perylene	0.00965	J	0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Benzo(k)fluoranthene	0.00710	J	0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Chrysene	0.0914		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Dibenz(a,h)anthracene	0.00453	J	0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Fluoranthene	0.222		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Fluorene	0.188		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Indeno(1,2,3-cd)pyrene	0.00405	J	0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Naphthalene	0.372		0.00734	0.0734	3	02/04/2018 17:09	WG1069800
Phenanthrene	0.455		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
Pyrene	0.287		0.00220	0.0220	3	02/04/2018 17:09	WG1069800
1-Methylnaphthalene	0.0774		0.00734	0.0734	3	02/04/2018 17:09	WG1069800

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	0.121		0.00734	0.0734	3	02/04/2018 17:09	WG1069800
2-Chloronaphthalene	U		0.00734	0.0734	3	02/04/2018 17:09	WG1069800
(S) Nitrobenzene-d5	*83.7*			*14.0-149*		*02/04/2018 17:09*	WG1069800
(S) 2-Fluorobiphenyl	*76.2*			*34.0-125*		*02/04/2018 17:09*	WG1069800
(S) p-Terphenyl-d14	*72.7*			*23.0-120*		*02/04/2018 17:09*	WG1069800

Sample Narrative:

L967603-03 WG1069800: Dilution due to sample volume

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	02/04/2018 23:00	WG1069970
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-122*		*02/04/2018 23:00*	WG1069970

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	02/04/2018 03:41	WG1069715
Acrolein	U	J4	8.87	50.0	1	02/04/2018 03:41	WG1069715
Acrylonitrile	U		1.87	10.0	1	02/04/2018 03:41	WG1069715
Benzene	U		0.331	1.00	1	02/04/2018 03:41	WG1069715
Bromobenzene	U		0.352	1.00	1	02/04/2018 03:41	WG1069715
Bromodichloromethane	U		0.380	1.00	1	02/04/2018 03:41	WG1069715
Bromoform	U		0.469	1.00	1	02/04/2018 03:41	WG1069715
Bromomethane	U	J3	0.866	5.00	1	02/04/2018 03:41	WG1069715
n-Butylbenzene	U		0.361	1.00	1	02/04/2018 03:41	WG1069715
sec-Butylbenzene	U		0.365	1.00	1	02/04/2018 03:41	WG1069715
tert-Butylbenzene	U		0.399	1.00	1	02/04/2018 03:41	WG1069715
Carbon tetrachloride	U		0.379	1.00	1	02/04/2018 03:41	WG1069715
Chlorobenzene	U		0.348	1.00	1	02/04/2018 03:41	WG1069715
Chlorodibromomethane	U		0.327	1.00	1	02/04/2018 03:41	WG1069715
Chloroethane	U	J3	0.453	5.00	1	02/04/2018 03:41	WG1069715
Chloroform	U		0.324	5.00	1	02/04/2018 03:41	WG1069715
Chloromethane	U	J3 J4	0.276	2.50	1	02/04/2018 03:41	WG1069715
2-Chlorotoluene	U		0.375	1.00	1	02/04/2018 03:41	WG1069715
4-Chlorotoluene	U		0.351	1.00	1	02/04/2018 03:41	WG1069715
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	02/04/2018 03:41	WG1069715
1,2-Dibromoethane	U		0.381	1.00	1	02/04/2018 03:41	WG1069715
Dibromomethane	U		0.346	1.00	1	02/04/2018 03:41	WG1069715
1,2-Dichlorobenzene	U		0.349	1.00	1	02/04/2018 03:41	WG1069715
1,3-Dichlorobenzene	U		0.220	1.00	1	02/04/2018 03:41	WG1069715
1,4-Dichlorobenzene	U		0.274	1.00	1	02/04/2018 03:41	WG1069715
Dichlorodifluoromethane	U		0.551	5.00	1	02/06/2018 21:42	WG1069715
1,1-Dichloroethane	U		0.259	1.00	1	02/04/2018 03:41	WG1069715
1,2-Dichloroethane	U		0.361	1.00	1	02/04/2018 03:41	WG1069715
1,1-Dichloroethene	U	J3	0.398	1.00	1	02/04/2018 03:41	WG1069715
cis-1,2-Dichloroethene	U		0.260	1.00	1	02/04/2018 03:41	WG1069715
trans-1,2-Dichloroethene	U		0.396	1.00	1	02/04/2018 03:41	WG1069715
1,2-Dichloropropane	U		0.306	1.00	1	02/04/2018 03:41	WG1069715
1,1-Dichloropropene	U		0.352	1.00	1	02/04/2018 03:41	WG1069715
1,3-Dichloropropane	U		0.366	1.00	1	02/04/2018 03:41	WG1069715
cis-1,3-Dichloropropene	U		0.418	1.00	1	02/04/2018 03:41	WG1069715
trans-1,3-Dichloropropene	U		0.419	1.00	1	02/04/2018 03:41	WG1069715
2,2-Dichloropropane	U	J3	0.321	1.00	1	02/04/2018 03:41	WG1069715
Di-isopropyl ether	U		0.320	1.00	1	02/04/2018 03:41	WG1069715
Ethylbenzene	U		0.384	1.00	1	02/04/2018 03:41	WG1069715
Hexachloro-1,3-butadiene	U		0.256	1.00	1	02/04/2018 03:41	WG1069715
Isopropylbenzene	U		0.326	1.00	1	02/04/2018 03:41	WG1069715
p-Isopropyltoluene	U		0.350	1.00	1	02/04/2018 03:41	WG1069715
2-Butanone (MEK)	U		3.93	10.0	1	02/04/2018 03:41	WG1069715
Methylene Chloride	U		1.00	5.00	1	02/04/2018 03:41	WG1069715
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	02/04/2018 03:41	WG1069715
Methyl tert-butyl ether	U		0.367	1.00	1	02/04/2018 03:41	WG1069715
Naphthalene	U		1.00	5.00	1	02/04/2018 03:41	WG1069715
n-Propylbenzene	U		0.349	1.00	1	02/04/2018 03:41	WG1069715

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Styrene	U		0.307	1.00	1	02/04/2018 03:41	WG1069715
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	02/04/2018 03:41	WG1069715
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	02/04/2018 03:41	WG1069715
1,1,2-Trichlorotrifluoroethane	U	J3	0.303	1.00	1	02/04/2018 03:41	WG1069715
Tetrachloroethene	U		0.372	1.00	1	02/04/2018 03:41	WG1069715
Toluene	U		0.412	1.00	1	02/04/2018 03:41	WG1069715
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/04/2018 03:41	WG1069715
1,2,4-Trichlorobenzene	U		0.355	1.00	1	02/04/2018 03:41	WG1069715
1,1,1-Trichloroethane	U		0.319	1.00	1	02/04/2018 03:41	WG1069715
1,1,2-Trichloroethane	U		0.383	1.00	1	02/04/2018 03:41	WG1069715
Trichloroethene	U		0.398	1.00	1	02/04/2018 03:41	WG1069715
Trichlorofluoromethane	U	J3	1.20	5.00	1	02/04/2018 03:41	WG1069715
1,2,3-Trichloropropane	U		0.807	2.50	1	02/04/2018 03:41	WG1069715
1,2,4-Trimethylbenzene	U		0.373	1.00	1	02/04/2018 03:41	WG1069715
1,2,3-Trimethylbenzene	U		0.321	1.00	1	02/04/2018 03:41	WG1069715
1,3,5-Trimethylbenzene	U		0.387	1.00	1	02/04/2018 03:41	WG1069715
Vinyl chloride	U	J3 J4	0.259	1.00	1	02/04/2018 03:41	WG1069715
Xylenes, Total	U		1.06	3.00	1	02/04/2018 03:41	WG1069715
(S) Toluene-d8	*96.6*			*80.0-120*		*02/06/2018 21:42*	WG1069715
(S) Toluene-d8	*100*			*80.0-120*		*02/04/2018 03:41*	WG1069715
(S) Dibromofluoromethane	*89.0*			*76.0-123*		*02/04/2018 03:41*	WG1069715
(S) Dibromofluoromethane	*94.7*			*76.0-123*		*02/06/2018 21:42*	WG1069715
(S) 4-Bromofluorobenzene	*96.7*			*80.0-120*		*02/04/2018 03:41*	WG1069715
(S) 4-Bromofluorobenzene	*100*			*80.0-120*		*02/06/2018 21:42*	WG1069715

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	41.6	J	33.0	100	1	02/05/2018 20:56	WG1069801
Residual Range Organics (RRO)	U		82.5	250	1	02/05/2018 20:56	WG1069801
(S) o-Terphenyl	*90.4*			*31.0-160*		*02/05/2018 20:56*	WG1069801

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0140	0.0500	1	02/05/2018 03:45	WG1069935
Acenaphthene	U		0.0100	0.0500	1	02/05/2018 03:45	WG1069935
Acenaphthylene	U		0.0120	0.0500	1	02/05/2018 03:45	WG1069935
Benzo(a)anthracene	U		0.00410	0.0500	1	02/05/2018 03:45	WG1069935
Benzo(a)pyrene	U		0.0116	0.0500	1	02/05/2018 03:45	WG1069935
Benzo(b)fluoranthene	0.00721	B J	0.00212	0.0500	1	02/05/2018 03:45	WG1069935
Benzo(g,h,i)perylene	0.00248	B J	0.00227	0.0500	1	02/05/2018 03:45	WG1069935
Benzo(k)fluoranthene	U		0.0136	0.0500	1	02/05/2018 03:45	WG1069935
Chrysene	U		0.0108	0.0500	1	02/05/2018 03:45	WG1069935
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	02/05/2018 03:45	WG1069935
Fluoranthene	U		0.0157	0.0500	1	02/05/2018 03:45	WG1069935
Fluorene	U		0.00850	0.0500	1	02/05/2018 03:45	WG1069935
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	02/05/2018 03:45	WG1069935
Naphthalene	0.0242	B J	0.0198	0.250	1	02/05/2018 03:45	WG1069935
Phenanthrene	U		0.00820	0.0500	1	02/05/2018 03:45	WG1069935
Pyrene	U		0.0117	0.0500	1	02/05/2018 03:45	WG1069935
1-Methylnaphthalene	U		0.00821	0.250	1	02/05/2018 03:45	WG1069935
2-Methylnaphthalene	U		0.00902	0.250	1	02/05/2018 03:45	WG1069935
2-Chloronaphthalene	U		0.00647	0.250	1	02/05/2018 03:45	WG1069935
(S) Nitrobenzene-d5	*93.0*			*31.0-160*		*02/05/2018 03:45*	WG1069935

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) 2-Fluorobiphenyl	*120*			*48.0-148*		*02/05/2018 03:45*	WG1069935
(S) p-Terphenyl-d14	*108*			*37.0-146*		*02/05/2018 03:45*	WG1069935

BP-119-W
Collected date/time: 01/31/18 15:30

SAMPLE RESULTS - 05

L967603

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	92.9	J	31.6	100	1	02/04/2018 23:23	WG1069970
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-122*		*02/04/2018 23:23*	WG1069970

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	02/04/2018 04:00	WG1069715
Acrolein	U	J4	8.87	50.0	1	02/04/2018 04:00	WG1069715
Acrylonitrile	U		1.87	10.0	1	02/04/2018 04:00	WG1069715
Benzene	U		0.331	1.00	1	02/04/2018 04:00	WG1069715
Bromobenzene	U		0.352	1.00	1	02/04/2018 04:00	WG1069715
Bromodichloromethane	U		0.380	1.00	1	02/04/2018 04:00	WG1069715
Bromoform	U		0.469	1.00	1	02/04/2018 04:00	WG1069715
Bromomethane	U	J3	0.866	5.00	1	02/04/2018 04:00	WG1069715
n-Butylbenzene	U		0.361	1.00	1	02/04/2018 04:00	WG1069715
sec-Butylbenzene	U		0.365	1.00	1	02/04/2018 04:00	WG1069715
tert-Butylbenzene	U		0.399	1.00	1	02/04/2018 04:00	WG1069715
Carbon tetrachloride	U		0.379	1.00	1	02/04/2018 04:00	WG1069715
Chlorobenzene	U		0.348	1.00	1	02/04/2018 04:00	WG1069715
Chlorodibromomethane	U		0.327	1.00	1	02/04/2018 04:00	WG1069715
Chloroethane	U	J3	0.453	5.00	1	02/04/2018 04:00	WG1069715
Chloroform	U		0.324	5.00	1	02/04/2018 04:00	WG1069715
Chloromethane	U	J3 J4	0.276	2.50	1	02/04/2018 04:00	WG1069715
2-Chlorotoluene	U		0.375	1.00	1	02/04/2018 04:00	WG1069715
4-Chlorotoluene	U		0.351	1.00	1	02/04/2018 04:00	WG1069715
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	02/04/2018 04:00	WG1069715
1,2-Dibromoethane	U		0.381	1.00	1	02/04/2018 04:00	WG1069715
Dibromomethane	U		0.346	1.00	1	02/04/2018 04:00	WG1069715
1,2-Dichlorobenzene	U		0.349	1.00	1	02/04/2018 04:00	WG1069715
1,3-Dichlorobenzene	U		0.220	1.00	1	02/04/2018 04:00	WG1069715
1,4-Dichlorobenzene	U		0.274	1.00	1	02/04/2018 04:00	WG1069715
Dichlorodifluoromethane	U		0.551	5.00	1	02/06/2018 22:02	WG1069715
1,1-Dichloroethane	U		0.259	1.00	1	02/04/2018 04:00	WG1069715
1,2-Dichloroethane	U		0.361	1.00	1	02/04/2018 04:00	WG1069715
1,1-Dichloroethene	U	J3	0.398	1.00	1	02/04/2018 04:00	WG1069715
cis-1,2-Dichloroethene	U		0.260	1.00	1	02/04/2018 04:00	WG1069715
trans-1,2-Dichloroethene	U		0.396	1.00	1	02/04/2018 04:00	WG1069715
1,2-Dichloropropane	U		0.306	1.00	1	02/04/2018 04:00	WG1069715
1,1-Dichloropropene	U		0.352	1.00	1	02/04/2018 04:00	WG1069715
1,3-Dichloropropane	U		0.366	1.00	1	02/04/2018 04:00	WG1069715
cis-1,3-Dichloropropene	U		0.418	1.00	1	02/04/2018 04:00	WG1069715
trans-1,3-Dichloropropene	U		0.419	1.00	1	02/04/2018 04:00	WG1069715
2,2-Dichloropropane	U	J3	0.321	1.00	1	02/04/2018 04:00	WG1069715
Di-isopropyl ether	U		0.320	1.00	1	02/04/2018 04:00	WG1069715
Ethylbenzene	U		0.384	1.00	1	02/04/2018 04:00	WG1069715
Hexachloro-1,3-butadiene	U		0.256	1.00	1	02/04/2018 04:00	WG1069715
Isopropylbenzene	U		0.326	1.00	1	02/04/2018 04:00	WG1069715
p-Isopropyltoluene	U		0.350	1.00	1	02/04/2018 04:00	WG1069715
2-Butanone (MEK)	U		3.93	10.0	1	02/04/2018 04:00	WG1069715
Methylene Chloride	U		1.00	5.00	1	02/04/2018 04:00	WG1069715
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	02/04/2018 04:00	WG1069715
Methyl tert-butyl ether	U		0.367	1.00	1	02/04/2018 04:00	WG1069715
Naphthalene	24.9		1.00	5.00	1	02/04/2018 04:00	WG1069715
n-Propylbenzene	0.686	J	0.349	1.00	1	02/04/2018 04:00	WG1069715

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.307	1.00	1	02/04/2018 04:00	WG1069715
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	02/04/2018 04:00	WG1069715
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	02/04/2018 04:00	WG1069715
1,1,2-Trichlorotrifluoroethane	U	J3	0.303	1.00	1	02/04/2018 04:00	WG1069715
Tetrachloroethene	U		0.372	1.00	1	02/04/2018 04:00	WG1069715
Toluene	U		0.412	1.00	1	02/04/2018 04:00	WG1069715
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/04/2018 04:00	WG1069715
1,2,4-Trichlorobenzene	U		0.355	1.00	1	02/04/2018 04:00	WG1069715
1,1,1-Trichloroethane	U		0.319	1.00	1	02/04/2018 04:00	WG1069715
1,1,2-Trichloroethane	U		0.383	1.00	1	02/04/2018 04:00	WG1069715
Trichloroethene	U		0.398	1.00	1	02/04/2018 04:00	WG1069715
Trichlorofluoromethane	U	J3	1.20	5.00	1	02/04/2018 04:00	WG1069715
1,2,3-Trichloropropane	U		0.807	2.50	1	02/04/2018 04:00	WG1069715
1,2,4-Trimethylbenzene	U		0.373	1.00	1	02/04/2018 04:00	WG1069715
1,2,3-Trimethylbenzene	U		0.321	1.00	1	02/04/2018 04:00	WG1069715
1,3,5-Trimethylbenzene	U		0.387	1.00	1	02/04/2018 04:00	WG1069715
Vinyl chloride	U	J3 J4	0.259	1.00	1	02/04/2018 04:00	WG1069715
Xylenes, Total	U		1.06	3.00	1	02/04/2018 04:00	WG1069715
(S) Toluene-d8	*104*			*80.0-120*		*02/04/2018 04:00*	WG1069715
(S) Toluene-d8	*95.5*			*80.0-120*		*02/06/2018 22:02*	WG1069715
(S) Dibromofluoromethane	*88.9*			*76.0-123*		*02/04/2018 04:00*	WG1069715
(S) Dibromofluoromethane	*95.4*			*76.0-123*		*02/06/2018 22:02*	WG1069715
(S) 4-Bromofluorobenzene	*101*			*80.0-120*		*02/06/2018 22:02*	WG1069715
(S) 4-Bromofluorobenzene	*97.8*			*80.0-120*		*02/04/2018 04:00*	WG1069715

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	1340		33.0	100	1	02/05/2018 21:12	WG1069801
Residual Range Organics (RRO)	1250		82.5	250	1	02/05/2018 21:12	WG1069801
(S) o-Terphenyl	*96.2*			*31.0-160*		*02/05/2018 21:12*	WG1069801

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	0.436		0.0700	0.250	5	02/05/2018 09:37	WG1069935
Acenaphthene	4.39		0.0500	0.250	5	02/05/2018 09:37	WG1069935
Acenaphthylene	U		0.0600	0.250	5	02/05/2018 09:37	WG1069935
Benzo(a)anthracene	U		0.0205	0.250	5	02/05/2018 09:37	WG1069935
Benzo(a)pyrene	U		0.0580	0.250	5	02/05/2018 09:37	WG1069935
Benzo(b)fluoranthene	0.0140	B J	0.0106	0.250	5	02/05/2018 09:37	WG1069935
Benzo(g,h,i)perylene	0.0260	B J	0.0114	0.250	5	02/05/2018 09:37	WG1069935
Benzo(k)fluoranthene	U		0.0680	0.250	5	02/05/2018 09:37	WG1069935
Chrysene	U		0.0540	0.250	5	02/05/2018 09:37	WG1069935
Dibenz(a,h)anthracene	U		0.0198	0.250	5	02/05/2018 09:37	WG1069935
Fluoranthene	U		0.0785	0.250	5	02/05/2018 09:37	WG1069935
Fluorene	3.45		0.0425	0.250	5	02/05/2018 09:37	WG1069935
Indeno(1,2,3-cd)pyrene	U		0.0740	0.250	5	02/05/2018 09:37	WG1069935
Naphthalene	42.3		0.0990	1.25	5	02/05/2018 09:37	WG1069935
Phenanthrene	4.10		0.0410	0.250	5	02/05/2018 09:37	WG1069935
Pyrene	0.159	J	0.0585	0.250	5	02/05/2018 09:37	WG1069935
1-Methylnaphthalene	103		0.0410	1.25	5	02/05/2018 09:37	WG1069935
2-Methylnaphthalene	95.5		0.0451	1.25	5	02/05/2018 09:37	WG1069935
2-Chloronaphthalene	U		0.0324	1.25	5	02/05/2018 09:37	WG1069935
(S) Nitrobenzene-d5	*81.0*			*31.0-160*		*02/05/2018 09:37*	WG1069935

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) 2-Fluorobiphenyl	*100*			*48.0-148*		*02/05/2018 09:37*	WG1069935
(S) p-Terphenyl-d14	*77.5*			*37.0-146*		*02/05/2018 09:37*	WG1069935

Sample Narrative:

L967603-05 WG1069935: Dilution due to matrix

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.6		1	02/06/2018 14:43	WG1070464

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	161		3.79	11.2	100	02/05/2018 20:39	WG1069747
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*02/05/2018 20:39*	WG1069747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		1.12	5.58	100	02/03/2018 23:18	WG1069771
Acrylonitrile	U		0.200	1.12	100	02/03/2018 23:18	WG1069771
Benzene	U		0.0301	0.112	100	02/03/2018 23:18	WG1069771
Bromobenzene	U		0.0317	0.112	100	02/03/2018 23:18	WG1069771
Bromodichloromethane	U		0.0284	0.112	100	02/03/2018 23:18	WG1069771
Bromoform	U		0.0473	0.112	100	02/03/2018 23:18	WG1069771
Bromomethane	U		0.150	0.558	100	02/03/2018 23:18	WG1069771
n-Butylbenzene	0.751		0.0288	0.112	100	02/03/2018 23:18	WG1069771
sec-Butylbenzene	0.101	J	0.0224	0.112	100	02/03/2018 23:18	WG1069771
tert-Butylbenzene	U		0.0230	0.112	100	02/03/2018 23:18	WG1069771
Carbon tetrachloride	U		0.0366	0.112	100	02/03/2018 23:18	WG1069771
Chlorobenzene	U		0.0237	0.112	100	02/03/2018 23:18	WG1069771
Chlorodibromomethane	U		0.0416	0.112	100	02/03/2018 23:18	WG1069771
Chloroethane	U		0.106	0.558	100	02/03/2018 23:18	WG1069771
Chloroform	U		0.0256	0.558	100	02/03/2018 23:18	WG1069771
Chloromethane	U		0.0419	0.279	100	02/03/2018 23:18	WG1069771
2-Chlorotoluene	U		0.0336	0.112	100	02/03/2018 23:18	WG1069771
4-Chlorotoluene	U		0.0268	0.112	100	02/03/2018 23:18	WG1069771
1,2-Dibromo-3-Chloropropane	U		0.117	0.558	100	02/03/2018 23:18	WG1069771
1,2-Dibromoethane	U		0.0383	0.112	100	02/03/2018 23:18	WG1069771
Dibromomethane	U		0.0427	0.112	100	02/03/2018 23:18	WG1069771
1,2-Dichlorobenzene	U		0.0341	0.112	100	02/03/2018 23:18	WG1069771
1,3-Dichlorobenzene	U		0.0267	0.112	100	02/03/2018 23:18	WG1069771
1,4-Dichlorobenzene	U		0.0252	0.112	100	02/03/2018 23:18	WG1069771
Dichlorodifluoromethane	U		0.0796	0.558	100	02/03/2018 23:18	WG1069771
1,1-Dichloroethane	U		0.0222	0.112	100	02/03/2018 23:18	WG1069771
1,2-Dichloroethane	U		0.0296	0.112	100	02/03/2018 23:18	WG1069771
1,1-Dichloroethene	U		0.0338	0.112	100	02/03/2018 23:18	WG1069771
cis-1,2-Dichloroethene	U		0.0262	0.112	100	02/03/2018 23:18	WG1069771
trans-1,2-Dichloroethene	U		0.0295	0.112	100	02/03/2018 23:18	WG1069771
1,2-Dichloropropane	U		0.0400	0.112	100	02/03/2018 23:18	WG1069771
1,1-Dichloropropene	U		0.0354	0.112	100	02/03/2018 23:18	WG1069771
1,3-Dichloropropane	U		0.0231	0.112	100	02/03/2018 23:18	WG1069771
cis-1,3-Dichloropropene	U		0.0293	0.112	100	02/03/2018 23:18	WG1069771
trans-1,3-Dichloropropene	U	J4	0.0298	0.112	100	02/03/2018 23:18	WG1069771
2,2-Dichloropropane	U		0.0312	0.112	100	02/03/2018 23:18	WG1069771
Di-isopropyl ether	U		0.0277	0.112	100	02/03/2018 23:18	WG1069771
Ethylbenzene	0.0402	J	0.0332	0.112	100	02/03/2018 23:18	WG1069771
Hexachloro-1,3-butadiene	U		0.0382	0.112	100	02/03/2018 23:18	WG1069771
Isopropylbenzene	0.0773	J	0.0271	0.112	100	02/03/2018 23:18	WG1069771
p-Isopropyltoluene	0.0310	J	0.0228	0.112	100	02/03/2018 23:18	WG1069771
2-Butanone (MEK)	U		0.523	1.12	100	02/03/2018 23:18	WG1069771
Methylene Chloride	U		0.112	0.558	100	02/03/2018 23:18	WG1069771
4-Methyl-2-pentanone (MIBK)	U		0.210	1.12	100	02/03/2018 23:18	WG1069771

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.0237	0.112	100	02/03/2018 23:18	WG1069771
Naphthalene	12.7		0.112	0.558	100	02/03/2018 23:18	WG1069771
n-Propylbenzene	0.549		0.0230	0.112	100	02/03/2018 23:18	WG1069771
Styrene	U		0.0261	0.112	100	02/03/2018 23:18	WG1069771
1,1,1,2-Tetrachloroethane	U		0.0295	0.112	100	02/03/2018 23:18	WG1069771
1,1,2,2-Tetrachloroethane	U		0.0408	0.112	100	02/03/2018 23:18	WG1069771
1,1,2-Trichlorotrifluoroethane	U		0.0408	0.112	100	02/03/2018 23:18	WG1069771
Tetrachloroethene	U		0.0308	0.112	100	02/03/2018 23:18	WG1069771
Toluene	U		0.0485	0.558	100	02/03/2018 23:18	WG1069771
1,2,3-Trichlorobenzene	U		0.0342	0.112	100	02/03/2018 23:18	WG1069771
1,2,4-Trichlorobenzene	U		0.0433	0.112	100	02/03/2018 23:18	WG1069771
1,1,1-Trichloroethane	U		0.0319	0.112	100	02/03/2018 23:18	WG1069771
1,1,2-Trichloroethane	U		0.0309	0.112	100	02/03/2018 23:18	WG1069771
Trichloroethene	U		0.0312	0.112	100	02/03/2018 23:18	WG1069771
Trichlorofluoromethane	U		0.0427	0.558	100	02/03/2018 23:18	WG1069771
1,2,3-Trichloropropane	U		0.0827	0.279	100	02/03/2018 23:18	WG1069771
1,2,4-Trimethylbenzene	0.0239	J	0.0236	0.112	100	02/03/2018 23:18	WG1069771
1,2,3-Trimethylbenzene	0.114		0.0320	0.112	100	02/03/2018 23:18	WG1069771
1,3,5-Trimethylbenzene	U		0.0297	0.112	100	02/03/2018 23:18	WG1069771
Vinyl chloride	U		0.0325	0.112	100	02/03/2018 23:18	WG1069771
Xylenes, Total	0.0872	J	0.0779	0.335	100	02/03/2018 23:18	WG1069771
(S) Toluene-d8	*98.0*			*80.0-120*		*02/03/2018 23:18*	WG1069771
(S) Dibromofluoromethane	*102*			*74.0-131*		*02/03/2018 23:18*	WG1069771
(S) 4-Bromofluorobenzene	*106*			*64.0-132*		*02/03/2018 23:18*	WG1069771

Sample Narrative:

L967603-06 WG1069771: Non-target and target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	27600	J3	295	893	200	02/05/2018 17:01	WG1069926
Residual Range Organics (RRO)	14000	J3	737	2230	200	02/05/2018 17:01	WG1069926
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*02/05/2018 17:01*	WG1069926

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	30.7		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Acenaphthene	30.6		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Acenaphthylene	U		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Benzo(a)anthracene	5.94		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Benzo(a)pyrene	2.27		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Benzo(b)fluoranthene	1.15		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Benzo(g,h,i)perylene	0.998		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Benzo(k)fluoranthene	0.0605	J	0.0402	0.402	60	02/04/2018 17:31	WG1069800
Chrysene	10.0		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Dibenz(a,h)anthracene	0.275	J	0.0402	0.402	60	02/04/2018 17:31	WG1069800
Fluoranthene	4.45		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Fluorene	28.8		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Indeno(1,2,3-cd)pyrene	0.179	J	0.0402	0.402	60	02/04/2018 17:31	WG1069800
Naphthalene	92.0		0.134	1.34	60	02/04/2018 17:31	WG1069800
Phenanthrene	124		0.0402	0.402	60	02/04/2018 17:31	WG1069800
Pyrene	28.2		0.0402	0.402	60	02/04/2018 17:31	WG1069800
1-Methylnaphthalene	138		0.223	2.23	100	02/06/2018 04:14	WG1069800

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	202		0.223	2.23	100	02/06/2018 04:14	WG1069800
2-Chloronaphthalene	U		0.134	1.34	60	02/04/2018 17:31	WG1069800
(S) Nitrobenzene-d5	*143*	J7		*14.0-149*		*02/04/2018 17:31*	WG1069800
(S) Nitrobenzene-d5	*84.7*	J7		*14.0-149*		*02/06/2018 04:14*	WG1069800
(S) 2-Fluorobiphenyl	*128*	J7		*34.0-125*		*02/06/2018 04:14*	WG1069800
(S) 2-Fluorobiphenyl	*124*	J7		*34.0-125*		*02/04/2018 17:31*	WG1069800
(S) p-Terphenyl-d14	*135*	J7		*23.0-120*		*02/04/2018 17:31*	WG1069800
(S) p-Terphenyl-d14	*135*	J7		*23.0-120*		*02/06/2018 04:14*	WG1069800

Method Blank (MB)

(MB) R3284523-1 02/06/18 14:43

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.001			

L967090-02 Original Sample (OS) • Duplicate (DUP)

(OS) L967090-02 02/06/18 14:43 • (DUP) R3284523-3 02/06/18 14:43

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	68.1	68.3	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3284523-2 02/06/18 14:43

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3284327-3 02/05/18 14:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284327-1 02/05/18 12:58 • (LCSD) R3284327-2 02/05/18 13:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	4.30	4.16	78.3	75.6	70.0-133			3.47	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*100*	*77.0-120*				

L967411-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L967411-02 02/05/18 15:21 • (MS) R3284327-4 02/05/18 22:07 • (MSD) R3284327-5 02/05/18 22:29

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	91.7	213	204	88.5	81.8	25	10.0-146			4.39	30
(S) a,a,a-Trifluorotoluene(FID)					*99.0*	*99.1*		*77.0-120*				

Method Blank (MB)

(MB) R3284123-3 02/04/18 18:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284123-1 02/04/18 17:34 • (LCSD) R3284123-2 02/04/18 17:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	4830	4910	87.9	89.3	72.0-134			1.59	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-122*				

Method Blank (MB)

(MB) R3284308-3 02/03/18 21:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

Method Blank (MB)

(MB) R3284308-3 02/03/18 21:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*88.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*99.7*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284308-1 02/03/18 20:48 • (LCSD) R3284308-2 02/03/18 21:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	160	145	128	116	10.0-160			10.0	23
Acrolein	125	359	345	287	276	10.0-160	J4	J4	3.90	20
Acrylonitrile	125	112	106	89.6	85.0	60.0-142			5.22	20
Benzene	25.0	22.0	19.2	88.0	76.8	69.0-123			13.6	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284308-1 02/03/18 20:48 • (LCSD) R3284308-2 02/03/18 21:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	25.0	22.8	20.8	91.3	83.2	79.0-120			9.18	20
Bromodichloromethane	25.0	23.0	21.4	92.1	85.8	76.0-120			7.15	20
Bromoform	25.0	25.1	23.9	100	95.5	67.0-132			4.94	20
Bromomethane	25.0	21.1	17.1	84.4	68.4	18.0-160		J3	20.8	20
n-Butylbenzene	25.0	25.4	21.7	102	86.7	72.0-126			15.8	20
sec-Butylbenzene	25.0	24.6	21.2	98.3	84.9	74.0-121			14.7	20
tert-Butylbenzene	25.0	24.9	21.4	99.7	85.8	75.0-122			15.0	20
Carbon tetrachloride	25.0	22.9	18.7	91.6	74.9	63.0-122			20.0	20
Chlorobenzene	25.0	25.6	23.0	102	91.9	79.0-121			10.9	20
Chlorodibromomethane	25.0	25.2	23.8	101	95.2	75.0-125			5.58	20
Chloroethane	25.0	20.6	15.3	82.5	61.3	47.0-152		J3	29.6	20
Chloroform	25.0	22.2	19.5	88.9	78.1	72.0-121			13.0	20
Chloromethane	25.0	18.0	10.6	71.8	42.3	48.0-139		J3 J4	51.8	20
2-Chlorotoluene	25.0	23.9	21.0	95.6	84.0	74.0-122			13.0	20
4-Chlorotoluene	25.0	23.7	20.8	94.8	83.2	79.0-120			13.0	20
1,2-Dibromo-3-Chloropropane	25.0	24.0	23.5	95.9	93.8	64.0-127			2.19	20
1,2-Dibromoethane	25.0	25.3	24.1	101	96.2	77.0-123			4.97	20
Dibromomethane	25.0	25.0	24.0	99.8	96.1	78.0-120			3.83	20
1,2-Dichlorobenzene	25.0	24.9	22.6	99.8	90.5	80.0-120			9.78	20
1,3-Dichlorobenzene	25.0	24.6	21.8	98.6	87.3	72.0-123			12.1	20
1,4-Dichlorobenzene	25.0	23.6	21.3	94.3	85.2	77.0-120			10.2	20
1,1-Dichloroethane	25.0	22.1	18.8	88.4	75.3	70.0-126			16.0	20
1,2-Dichloroethane	25.0	21.4	20.0	85.7	79.9	67.0-126			6.90	20
1,1-Dichloroethene	25.0	22.6	18.4	90.5	73.7	64.0-129		J3	20.5	20
cis-1,2-Dichloroethene	25.0	22.2	19.7	88.9	78.9	73.0-120			11.9	20
trans-1,2-Dichloroethene	25.0	22.4	18.8	89.7	75.0	71.0-121			17.8	20
1,2-Dichloropropane	25.0	23.4	21.3	93.5	85.1	75.0-125			9.38	20
1,1-Dichloropropene	25.0	22.7	19.2	90.6	76.7	71.0-129			16.7	20
1,3-Dichloropropane	25.0	24.5	23.4	98.1	93.8	80.0-121			4.55	20
cis-1,3-Dichloropropene	25.0	24.4	22.2	97.5	88.9	79.0-123			9.17	20
trans-1,3-Dichloropropene	25.0	26.7	24.9	107	99.6	74.0-127			6.86	20
2,2-Dichloropropane	25.0	23.0	18.5	91.9	74.1	60.0-125		J3	21.5	20
Di-isopropyl ether	25.0	20.9	19.0	83.7	76.0	59.0-133			9.59	20
Ethylbenzene	25.0	26.0	22.8	104	91.3	77.0-120			13.0	20
Hexachloro-1,3-butadiene	25.0	28.2	23.4	113	93.6	64.0-131			18.7	20
Isopropylbenzene	25.0	24.8	21.3	99.3	85.2	75.0-120			15.3	20
p-Isopropyltoluene	25.0	25.4	21.8	101	87.1	74.0-126			15.2	20
2-Butanone (MEK)	125	140	136	112	109	37.0-158			3.06	20
Methylene Chloride	25.0	19.5	17.4	78.1	69.6	66.0-121			11.6	20
4-Methyl-2-pentanone (MIBK)	125	123	119	98.1	95.1	59.0-143			3.10	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284308-1 02/03/18 20:48 • (LCSD) R3284308-2 02/03/18 21:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	25.0	21.5	19.9	85.8	79.7	64.0-123			7.36	20
Naphthalene	25.0	24.4	22.9	97.6	91.6	62.0-128			6.29	20
n-Propylbenzene	25.0	25.0	21.7	100	86.7	79.0-120			14.5	20
Styrene	25.0	25.0	22.5	99.8	90.1	78.0-124			10.3	20
1,1,1,2-Tetrachloroethane	25.0	25.6	23.4	102	93.8	75.0-122			8.88	20
1,1,2,2-Tetrachloroethane	25.0	23.3	22.5	93.2	89.9	71.0-122			3.69	20
Tetrachloroethene	25.0	26.4	23.3	106	93.1	70.0-127			12.6	20
Toluene	25.0	24.8	21.5	99.1	85.8	77.0-120			14.3	20
1,1,2-Trichlorotrifluoroethane	25.0	24.4	19.6	97.7	78.3	61.0-136		J3	22.1	20
1,2,3-Trichlorobenzene	25.0	26.5	23.9	106	95.6	61.0-133			10.4	20
1,2,4-Trichlorobenzene	25.0	26.4	24.1	106	96.3	69.0-129			9.37	20
1,1,1-Trichloroethane	25.0	23.2	19.7	92.6	78.6	68.0-122			16.4	20
1,1,2-Trichloroethane	25.0	25.1	23.7	101	94.7	78.0-120			5.97	20
Trichloroethene	25.0	25.8	22.1	103	88.5	78.0-120			15.3	20
Trichlorofluoromethane	25.0	24.2	18.4	96.7	73.6	56.0-137		J3	27.1	20
1,2,3-Trichloropropane	25.0	24.6	23.3	98.4	93.3	72.0-124			5.29	20
1,2,3-Trimethylbenzene	25.0	24.1	21.5	96.4	86.2	75.0-120			11.2	20
1,2,4-Trimethylbenzene	25.0	23.9	21.5	95.5	86.0	75.0-120			10.5	20
1,3,5-Trimethylbenzene	25.0	23.9	21.1	95.7	84.3	75.0-120			12.6	20
Vinyl chloride	25.0	22.6	14.0	90.5	56.0	64.0-133		J3 J4	47.0	20
Xylenes, Total	75.0	76.7	68.1	102	90.8	77.0-120			11.9	20
(S) Toluene-d8				*101*	*101*	*80.0-120*				
(S) Dibromofluoromethane				*87.6*	*87.9*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.9*	*97.2*	*80.0-120*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284396-1 02/06/18 13:57 • (LCSD) R3284396-2 02/06/18 14:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dichlorodifluoromethane	25.0	25.9	25.1	104	100	49.0-155			3.34	20
(S) Toluene-d8				*99.8*	*99.2*	*80.0-120*				
(S) Dibromofluoromethane				*93.6*	*91.9*	*76.0-123*				
(S) 4-Bromofluorobenzene				*107*	*107*	*80.0-120*				

Method Blank (MB)

(MB) R3284295-3 02/03/18 13:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100

Method Blank (MB)

(MB) R3284295-3 02/03/18 13:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*108*			*74.0-131*
(S) 4-Bromofluorobenzene	*102*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284295-1 02/03/18 12:04 • (LCSD) R3284295-2 02/03/18 12:25

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.166	0.167	133	134	11.0-160			0.657	23
Acrylonitrile	0.125	0.131	0.129	105	104	61.0-143			1.14	20
Benzene	0.0250	0.0268	0.0265	107	106	71.0-124			0.993	20
Bromobenzene	0.0250	0.0284	0.0281	114	112	78.0-120			1.09	20
Bromodichloromethane	0.0250	0.0279	0.0269	112	107	75.0-120			3.77	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284295-1 02/03/18 12:04 • (LCSD) R3284295-2 02/03/18 12:25

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.0250	0.0264	0.0260	106	104	65.0-133			1.62	20
Bromomethane	0.0250	0.0287	0.0285	115	114	26.0-160			0.678	20
n-Butylbenzene	0.0250	0.0288	0.0282	115	113	73.0-126			2.00	20
sec-Butylbenzene	0.0250	0.0288	0.0288	115	115	75.0-121			0.257	20
tert-Butylbenzene	0.0250	0.0280	0.0280	112	112	74.0-122			0.131	20
Carbon tetrachloride	0.0250	0.0248	0.0243	99.2	97.1	66.0-123			2.21	20
Chlorobenzene	0.0250	0.0275	0.0262	110	105	79.0-121			4.80	20
Chlorodibromomethane	0.0250	0.0269	0.0262	108	105	74.0-128			2.79	20
Chloroethane	0.0250	0.0290	0.0278	116	111	51.0-147			4.38	20
Chloroform	0.0250	0.0281	0.0279	112	112	73.0-123			0.545	20
Chloromethane	0.0250	0.0228	0.0217	91.4	86.6	51.0-138			5.37	20
2-Chlorotoluene	0.0250	0.0278	0.0277	111	111	72.0-124			0.259	20
4-Chlorotoluene	0.0250	0.0284	0.0279	114	112	78.0-120			1.66	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0229	0.0226	91.8	90.3	65.0-126			1.66	20
1,2-Dibromoethane	0.0250	0.0282	0.0271	113	108	78.0-122			4.18	20
Dibromomethane	0.0250	0.0261	0.0252	104	101	79.0-120			3.53	20
1,2-Dichlorobenzene	0.0250	0.0263	0.0257	105	103	80.0-120			2.20	20
1,3-Dichlorobenzene	0.0250	0.0273	0.0267	109	107	72.0-123			2.16	20
1,4-Dichlorobenzene	0.0250	0.0266	0.0260	107	104	77.0-120			2.28	20
Dichlorodifluoromethane	0.0250	0.0259	0.0257	104	103	49.0-155			0.884	20
1,1-Dichloroethane	0.0250	0.0265	0.0262	106	105	70.0-128			1.22	20
1,2-Dichloroethane	0.0250	0.0311	0.0312	124	125	69.0-128			0.432	20
1,1-Dichloroethene	0.0250	0.0288	0.0288	115	115	63.0-131			0.0206	20
cis-1,2-Dichloroethene	0.0250	0.0263	0.0260	105	104	74.0-123			1.14	20
trans-1,2-Dichloroethene	0.0250	0.0253	0.0253	101	101	72.0-122			0.0700	20
1,2-Dichloropropane	0.0250	0.0270	0.0264	108	106	75.0-126			1.98	20
1,1-Dichloropropene	0.0250	0.0267	0.0270	107	108	72.0-130			1.06	20
1,3-Dichloropropane	0.0250	0.0304	0.0288	121	115	80.0-121			5.41	20
cis-1,3-Dichloropropene	0.0250	0.0304	0.0291	122	116	80.0-125			4.45	20
trans-1,3-Dichloropropene	0.0250	0.0327	0.0313	131	125	75.0-129	J4		4.64	20
2,2-Dichloropropane	0.0250	0.0249	0.0240	99.6	96.0	60.0-129			3.74	20
Di-isopropyl ether	0.0250	0.0251	0.0249	100	99.7	62.0-133			0.688	20
Ethylbenzene	0.0250	0.0260	0.0251	104	100	77.0-120			3.44	20
Hexachloro-1,3-butadiene	0.0250	0.0240	0.0236	96.1	94.4	68.0-128			1.75	20
Isopropylbenzene	0.0250	0.0275	0.0278	110	111	75.0-120			0.743	20
p-Isopropyltoluene	0.0250	0.0280	0.0276	112	110	74.0-125			1.55	20
2-Butanone (MEK)	0.125	0.161	0.160	129	128	37.0-159			0.472	20
Methylene Chloride	0.0250	0.0243	0.0243	97.3	97.3	67.0-123			0.0756	20
4-Methyl-2-pentanone (MIBK)	0.125	0.127	0.123	102	98.5	60.0-144			3.39	20
Methyl tert-butyl ether	0.0250	0.0273	0.0269	109	108	66.0-125			1.39	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284295-1 02/03/18 12:04 • (LCSD) R3284295-2 02/03/18 12:25

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Naphthalene	0.0250	0.0243	0.0239	97.2	95.8	64.0-125			1.49	20
n-Propylbenzene	0.0250	0.0284	0.0275	113	110	78.0-120			3.15	20
Styrene	0.0250	0.0285	0.0282	114	113	78.0-124			1.11	20
1,1,1,2-Tetrachloroethane	0.0250	0.0233	0.0223	93.1	89.3	74.0-124			4.16	20
1,1,2,2-Tetrachloroethane	0.0250	0.0281	0.0281	112	112	73.0-120			0.103	20
Tetrachloroethene	0.0250	0.0256	0.0244	102	97.7	70.0-127			4.58	20
Toluene	0.0250	0.0258	0.0247	103	99.0	77.0-120			4.19	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0263	0.0257	105	103	64.0-135			2.48	20
1,2,3-Trichlorobenzene	0.0250	0.0238	0.0231	95.0	92.3	68.0-126			2.92	20
1,2,4-Trichlorobenzene	0.0250	0.0242	0.0235	96.8	94.0	70.0-127			2.97	20
1,1,1-Trichloroethane	0.0250	0.0273	0.0271	109	108	69.0-125			0.754	20
1,1,2-Trichloroethane	0.0250	0.0276	0.0268	111	107	78.0-120			3.09	20
Trichloroethene	0.0250	0.0253	0.0247	101	98.6	79.0-120			2.46	20
Trichlorofluoromethane	0.0250	0.0272	0.0270	109	108	59.0-136			0.791	20
1,2,3-Trichloropropane	0.0250	0.0264	0.0265	106	106	73.0-124			0.497	20
1,2,3-Trimethylbenzene	0.0250	0.0277	0.0268	111	107	76.0-120			3.35	20
1,2,4-Trimethylbenzene	0.0250	0.0272	0.0273	109	109	75.0-120			0.253	20
1,3,5-Trimethylbenzene	0.0250	0.0277	0.0277	111	111	75.0-120			0.0525	20
Vinyl chloride	0.0250	0.0270	0.0264	108	106	63.0-134			2.29	20
Xylenes, Total	0.0750	0.0769	0.0736	103	98.1	77.0-120			4.39	20
(S) Toluene-d8				*101*	*98.4*	*80.0-120*				
(S) Dibromofluoromethane				*98.8*	*101*	*74.0-131*				
(S) 4-Bromofluorobenzene				*103*	*105*	*64.0-132*				

Method Blank (MB)

(MB) R3284470-3 02/06/18 11:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100

Method Blank (MB)

(MB) R3284470-3 02/06/18 11:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*104*			*74.0-131*
(S) 4-Bromofluorobenzene	*103*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284470-1 02/06/18 10:06 • (LCSD) R3284470-2 02/06/18 10:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.157	0.134	126	107	11.0-160			15.9	23
Acrylonitrile	0.125	0.125	0.115	99.9	92.0	61.0-143			8.23	20
Benzene	0.0250	0.0257	0.0249	103	99.7	71.0-124			2.85	20
Bromobenzene	0.0250	0.0253	0.0257	101	103	78.0-120			1.38	20
Bromodichloromethane	0.0250	0.0253	0.0252	101	101	75.0-120			0.367	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284470-1 02/06/18 10:06 • (LCSD) R3284470-2 02/06/18 10:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.0250	0.0236	0.0229	94.6	91.7	65.0-133			3.09	20
Bromomethane	0.0250	0.0284	0.0275	114	110	26.0-160			3.17	20
n-Butylbenzene	0.0250	0.0272	0.0271	109	109	73.0-126			0.261	20
sec-Butylbenzene	0.0250	0.0275	0.0279	110	111	75.0-121			1.45	20
tert-Butylbenzene	0.0250	0.0267	0.0272	107	109	74.0-122			1.61	20
Carbon tetrachloride	0.0250	0.0248	0.0239	99.4	95.4	66.0-123			4.06	20
Chlorobenzene	0.0250	0.0240	0.0245	95.9	98.0	79.0-121			2.18	20
Chlorodibromomethane	0.0250	0.0241	0.0233	96.3	93.4	74.0-128			3.07	20
Chloroethane	0.0250	0.0287	0.0277	115	111	51.0-147			3.41	20
Chloroform	0.0250	0.0276	0.0265	111	106	73.0-123			4.28	20
Chloromethane	0.0250	0.0227	0.0219	90.8	87.8	51.0-138			3.36	20
2-Chlorotoluene	0.0250	0.0263	0.0268	105	107	72.0-124			1.81	20
4-Chlorotoluene	0.0250	0.0256	0.0260	102	104	78.0-120			1.79	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0219	0.0219	87.7	87.4	65.0-126			0.238	20
1,2-Dibromoethane	0.0250	0.0232	0.0233	92.8	93.2	78.0-122			0.379	20
Dibromomethane	0.0250	0.0236	0.0233	94.5	93.2	79.0-120			1.35	20
1,2-Dichlorobenzene	0.0250	0.0250	0.0251	100	101	80.0-120			0.423	20
1,3-Dichlorobenzene	0.0250	0.0258	0.0258	103	103	72.0-123			0.134	20
1,4-Dichlorobenzene	0.0250	0.0247	0.0246	98.8	98.2	77.0-120			0.603	20
Dichlorodifluoromethane	0.0250	0.0259	0.0253	104	101	49.0-155			2.57	20
1,1-Dichloroethane	0.0250	0.0260	0.0254	104	101	70.0-128			2.39	20
1,2-Dichloroethane	0.0250	0.0282	0.0272	113	109	69.0-128			3.83	20
1,1-Dichloroethene	0.0250	0.0289	0.0279	116	112	63.0-131			3.35	20
cis-1,2-Dichloroethene	0.0250	0.0262	0.0256	105	102	74.0-123			2.57	20
trans-1,2-Dichloroethene	0.0250	0.0256	0.0252	102	101	72.0-122			1.60	20
1,2-Dichloropropane	0.0250	0.0251	0.0247	100	98.7	75.0-126			1.62	20
1,1-Dichloropropene	0.0250	0.0261	0.0252	104	101	72.0-130			3.38	20
1,3-Dichloropropane	0.0250	0.0251	0.0249	101	99.6	80.0-121			1.02	20
cis-1,3-Dichloropropene	0.0250	0.0255	0.0259	102	104	80.0-125			1.56	20
trans-1,3-Dichloropropene	0.0250	0.0265	0.0260	106	104	75.0-129			1.82	20
2,2-Dichloropropane	0.0250	0.0254	0.0242	102	96.7	60.0-129			4.92	20
Di-isopropyl ether	0.0250	0.0246	0.0236	98.5	94.2	62.0-133			4.41	20
Ethylbenzene	0.0250	0.0234	0.0241	93.4	96.3	77.0-120			3.05	20
Hexachloro-1,3-butadiene	0.0250	0.0242	0.0236	96.9	94.6	68.0-128			2.37	20
Isopropylbenzene	0.0250	0.0267	0.0267	107	107	75.0-120			0.0243	20
p-Isopropyltoluene	0.0250	0.0270	0.0268	108	107	74.0-125			0.431	20
2-Butanone (MEK)	0.125	0.140	0.126	112	101	37.0-159			10.4	20
Methylene Chloride	0.0250	0.0241	0.0236	96.4	94.3	67.0-123			2.13	20
4-Methyl-2-pentanone (MIBK)	0.125	0.114	0.109	91.4	86.9	60.0-144			5.04	20
Methyl tert-butyl ether	0.0250	0.0266	0.0254	106	101	66.0-125			4.80	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284470-1 02/06/18 10:06 • (LCSD) R3284470-2 02/06/18 10:27

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Naphthalene	0.0250	0.0245	0.0238	98.0	95.2	64.0-125			2.87	20
n-Propylbenzene	0.0250	0.0264	0.0264	106	106	78.0-120			0.0904	20
Styrene	0.0250	0.0256	0.0253	103	101	78.0-124			1.45	20
1,1,1,2-Tetrachloroethane	0.0250	0.0223	0.0228	89.4	91.1	74.0-124			1.92	20
1,1,2,2-Tetrachloroethane	0.0250	0.0256	0.0252	103	101	73.0-120			1.64	20
Tetrachloroethene	0.0250	0.0229	0.0235	91.4	94.0	70.0-127			2.82	20
Toluene	0.0250	0.0227	0.0232	90.9	92.8	77.0-120			2.04	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0284	0.0265	113	106	64.0-135			6.74	20
1,2,3-Trichlorobenzene	0.0250	0.0242	0.0236	96.8	94.5	68.0-126			2.40	20
1,2,4-Trichlorobenzene	0.0250	0.0245	0.0243	97.9	97.3	70.0-127			0.529	20
1,1,1-Trichloroethane	0.0250	0.0271	0.0266	109	106	69.0-125			2.09	20
1,1,2-Trichloroethane	0.0250	0.0239	0.0235	95.5	94.0	78.0-120			1.52	20
Trichloroethene	0.0250	0.0244	0.0243	97.4	97.3	79.0-120			0.133	20
Trichlorofluoromethane	0.0250	0.0283	0.0272	113	109	59.0-136			3.75	20
1,2,3-Trichloropropane	0.0250	0.0238	0.0233	95.2	93.4	73.0-124			1.88	20
1,2,3-Trimethylbenzene	0.0250	0.0260	0.0261	104	105	76.0-120			0.687	20
1,2,4-Trimethylbenzene	0.0250	0.0259	0.0259	104	104	75.0-120			0.211	20
1,3,5-Trimethylbenzene	0.0250	0.0268	0.0271	107	108	75.0-120			0.977	20
Vinyl chloride	0.0250	0.0265	0.0255	106	102	63.0-134			3.76	20
Xylenes, Total	0.0750	0.0708	0.0718	94.4	95.7	77.0-120			1.40	20
(S) Toluene-d8				*98.8*	*101*	*80.0-120*				
(S) Dibromofluoromethane				*107*	*103*	*74.0-131*				
(S) 4-Bromofluorobenzene				*100*	*101*	*64.0-132*				

Method Blank (MB)

(MB) R3284340-1 02/05/18 15:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		33.3	100
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*78.6*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284340-2 02/05/18 15:33 • (LCSD) R3284340-3 02/05/18 15:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	792	778	106	104	50.0-150			1.72	20
Residual Range Organics (RRO)	750	642	660	85.6	88.0	50.0-150			2.80	20
(S) o-Terphenyl				*98.8*	*96.4*	*31.0-160*				

Method Blank (MB)

(MB) R3284028-1 02/05/18 11:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*85.2*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284028-2 02/05/18 12:05 • (LCSD) R3284028-3 02/05/18 12:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	30.0	22.0	28.4	73.4	94.7	50.0-150		J3	25.4	20
Residual Range Organics (RRO)	30.0	23.7	30.6	78.9	102	50.0-150		J3	25.4	20
(S) o-Terphenyl				*72.5*	*90.9*	*18.0-148*				

L967646-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L967646-02 02/05/18 14:50 • (MS) R3284028-4 02/05/18 15:04 • (MSD) R3284028-5 02/05/18 15:19

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	30.0	ND	29.3	27.2	95.4	88.5	1	50.0-150			7.36	20
Residual Range Organics (RRO)	30.0	ND	29.9	28.3	92.6	87.2	1	50.0-150			5.52	20
(S) o-Terphenyl					*85.5*	*73.2*		*18.0-148*				

Method Blank (MB)

(MB) R3283931-3 02/04/18 02:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*73.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*73.0*			*34.0-125*
(S) p-Terphenyl-d14	*71.1*			*23.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3283931-1 02/04/18 01:57 • (LCSD) R3283931-2 02/04/18 02:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0802	0.0812	100	101	50.0-125			1.26	20
Acenaphthene	0.0800	0.0684	0.0711	85.6	88.9	52.0-120			3.87	20
Acenaphthylene	0.0800	0.0688	0.0719	86.0	89.9	51.0-120			4.47	20
Benzo(a)anthracene	0.0800	0.0669	0.0680	83.6	84.9	46.0-121			1.62	20
Benzo(a)pyrene	0.0800	0.0706	0.0716	88.3	89.5	42.0-121			1.34	20
Benzo(b)fluoranthene	0.0800	0.0670	0.0681	83.8	85.1	42.0-123			1.57	20
Benzo(g,h,i)perylene	0.0800	0.0755	0.0743	94.4	92.9	43.0-128			1.58	20
Benzo(k)fluoranthene	0.0800	0.0739	0.0732	92.3	91.5	45.0-128			0.938	20
Chrysene	0.0800	0.0724	0.0740	90.5	92.5	48.0-127			2.11	20
Dibenz(a,h)anthracene	0.0800	0.0735	0.0732	91.9	91.5	43.0-132			0.382	20
Fluoranthene	0.0800	0.0763	0.0759	95.4	94.9	49.0-129			0.510	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3283931-1 02/04/18 01:57 • (LCSD) R3283931-2 02/04/18 02:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0658	0.0680	82.2	85.0	50.0-120			3.35	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0743	0.0739	92.8	92.4	44.0-131			0.505	20
Naphthalene	0.0800	0.0655	0.0681	81.9	85.2	50.0-120			3.89	20
Phenanthrene	0.0800	0.0700	0.0688	87.5	86.0	48.0-120			1.76	20
Pyrene	0.0800	0.0721	0.0709	90.2	88.7	48.0-135			1.71	20
1-Methylnaphthalene	0.0800	0.0752	0.0780	94.0	97.5	52.0-122			3.57	20
2-Methylnaphthalene	0.0800	0.0705	0.0730	88.2	91.3	52.0-120			3.47	20
2-Chloronaphthalene	0.0800	0.0679	0.0701	84.9	87.6	50.0-120			3.06	20
(S) Nitrobenzene-d5				*83.7*	*83.6*	*14.0-149*				
(S) 2-Fluorobiphenyl				*80.5*	*80.6*	*34.0-125*				
(S) p-Terphenyl-d14				*81.2*	*79.0*	*23.0-120*				

L967387-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L967387-04 02/04/18 14:57 • (MS) R3283931-4 02/04/18 15:19 • (MSD) R3283931-5 02/04/18 15:41

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	ND	0.0639	0.0670	79.9	83.7	1	20.0-136			4.67	24
Acenaphthene	0.0800	ND	0.0556	0.0634	69.5	79.2	1	29.0-124			13.0	20
Acenaphthylene	0.0800	ND	0.0585	0.0660	73.2	82.6	1	35.0-120			12.0	20
Benzo(a)anthracene	0.0800	ND	0.0557	0.0625	69.6	78.2	1	13.0-132			11.6	27
Benzo(a)pyrene	0.0800	ND	0.0560	0.0635	70.0	79.3	1	14.0-138			12.5	27
Benzo(b)fluoranthene	0.0800	ND	0.0501	0.0572	62.7	71.5	1	10.0-129			13.2	31
Benzo(g,h,i)perylene	0.0800	ND	0.0566	0.0626	69.6	77.0	1	10.0-133			9.99	30
Benzo(k)fluoranthene	0.0800	ND	0.0574	0.0645	71.8	80.6	1	15.0-131			11.6	27
Chrysene	0.0800	ND	0.0592	0.0665	74.0	83.2	1	15.0-137			11.7	25
Dibenz(a,h)anthracene	0.0800	ND	0.0594	0.0639	74.3	79.9	1	15.0-132			7.25	27
Fluoranthene	0.0800	ND	0.0568	0.0621	71.0	77.6	1	13.0-139			9.01	28
Fluorene	0.0800	ND	0.0529	0.0597	66.1	74.6	1	27.0-122			12.1	22
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0574	0.0623	71.8	77.9	1	11.0-133			8.18	29
Naphthalene	0.0800	ND	0.0568	0.0634	71.0	79.3	1	18.0-136			11.0	21
Phenanthrene	0.0800	ND	0.0531	0.0609	66.4	76.1	1	15.0-133			13.7	25
Pyrene	0.0800	ND	0.0557	0.0636	67.8	77.8	1	11.0-146			13.3	29
1-Methylnaphthalene	0.0800	ND	0.0638	0.0661	79.7	82.6	1	24.0-137			3.49	22
2-Methylnaphthalene	0.0800	ND	0.0602	0.0621	75.3	77.6	1	23.0-136			3.01	22
2-Chloronaphthalene	0.0800	ND	0.0609	0.0632	76.1	78.9	1	36.0-120			3.71	20
(S) Nitrobenzene-d5					*68.7*	*77.6*		*14.0-149*				
(S) 2-Fluorobiphenyl					*69.9*	*71.5*		*34.0-125*				
(S) p-Terphenyl-d14					*64.1*	*70.4*		*23.0-120*				

Method Blank (MB)

(MB) R3284224-3 02/05/18 03:01

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Anthracene	U		0.0140	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.0120	0.0500
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00299	J	0.00212	0.0500
Benzo(g,h,i)perylene	0.00295	J	0.00227	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Fluoranthene	U		0.0157	0.0500
Fluorene	U		0.00850	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0206	J	0.0198	0.250
Phenanthrene	U		0.00820	0.0500
Pyrene	U		0.0117	0.0500
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
2-Chloronaphthalene	U		0.00647	0.250
(S) Nitrobenzene-d5	*91.9*			*31.0-160*
(S) 2-Fluorobiphenyl	*120*			*48.0-148*
(S) p-Terphenyl-d14	*107*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284224-1 02/05/18 02:17 • (LCSD) R3284224-2 02/05/18 02:39

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Anthracene	2.00	2.31	2.43	116	121	64.0-142			4.93	20
Acenaphthene	2.00	2.08	2.16	104	108	66.0-132			3.86	20
Acenaphthylene	2.00	2.09	2.19	105	109	65.0-132			4.48	20
Benzo(a)anthracene	2.00	1.95	2.05	97.7	102	59.0-134			4.67	20
Benzo(a)pyrene	2.00	2.18	2.28	109	114	61.0-145			4.55	20
Benzo(b)fluoranthene	2.00	2.02	2.11	101	106	57.0-136			4.71	20
Benzo(g,h,i)perylene	2.00	2.24	2.35	112	118	54.0-140			4.73	20
Benzo(k)fluoranthene	2.00	2.25	2.36	112	118	57.0-141			5.01	20
Chrysene	2.00	2.18	2.30	109	115	63.0-140			5.26	20
Dibenz(a,h)anthracene	2.00	2.23	2.34	111	117	49.0-141			4.73	20
Fluoranthene	2.00	2.42	2.54	121	127	65.0-143			4.77	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284224-1 02/05/18 02:17 • (LCSD) R3284224-2 02/05/18 02:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	2.00	2.11	2.22	105	111	64.0-129			5.34	20
Indeno(1,2,3-cd)pyrene	2.00	2.23	2.34	111	117	53.0-141			4.83	20
Naphthalene	2.00	2.15	2.24	108	112	68.0-129			3.66	20
Phenanthrene	2.00	1.99	2.08	99.3	104	62.0-132			4.50	20
Pyrene	2.00	1.96	2.05	98.1	102	58.0-156			4.40	20
1-Methylnaphthalene	2.00	2.37	2.45	119	123	68.0-137			3.27	20
2-Methylnaphthalene	2.00	2.29	2.36	114	118	68.0-134			3.26	20
2-Chloronaphthalene	2.00	2.24	2.35	112	118	65.0-129			4.99	20
(S) Nitrobenzene-d5				*89.4*	*99.9*	*31.0-160*				
(S) 2-Fluorobiphenyl				*119*	*126*	*48.0-148*				
(S) p-Terphenyl-d14				*108*	*116*	*37.0-146*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

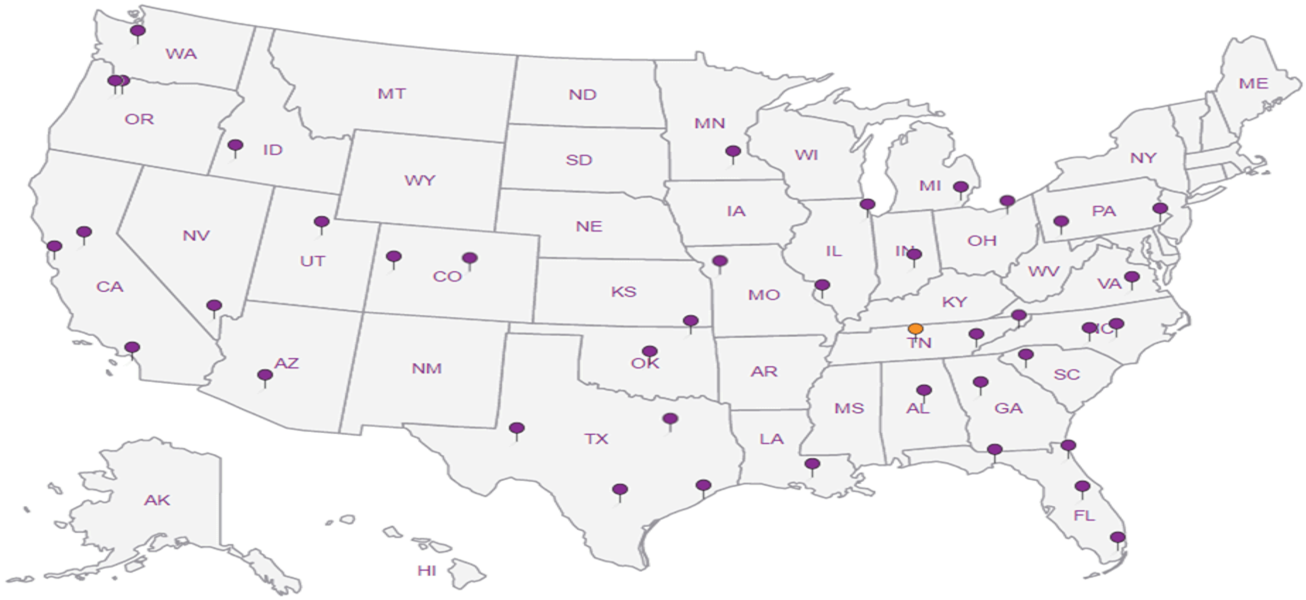
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



GRI - Beaverton, OR

9750 SW Nimbus Avenue
Beaverton, OR 97008

Billing Information:
Patty Norgaard
9750 SW Nimbus Avenue
Beaverton, OR 97008

Pres Chk

Report to:
Nora Utevsky

Email To: **nutevsky@gri.com; mmarshall@gri.com**

Project Description: 5764-1195

City/State Collected: Coos Bay/OR

Phone: **503-641-3478**
Fax:

Client Project #
5764 - 1195

Lab Project #
GRIBOR-5764

Collected by (print): N. Utevsky

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page 1 of 4

ESC
L·A·B S·C·I·E·N·C·E·S
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 967603

F161

Acctnum: **GRIBOR**
Template: **T131816**
Prelogin: **P635781**
TSR: **110 - Brian Ford**
PB: 1-19-18 MB
Shipped Via: **FedEX Ground**

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	M6010PP Metals 16ozClr-NoPres	NWTPHDX NOSGT 16ozClr-NoPres	NWTPHGX 40ml/NaHS04/Syr/MeOH	SV8270PAHSIMD PAHs 16ozClr-NoPres	V8260 VOCs 40ml/NaHS04/Syr/MeOH	Remarks	Sample # (lab only)
BP-101-W		GW		1/29/18	1428	12						*	
BP-101-7	G	SS	7	1/29/18	1514	5							
BP-101-30	G	SS	30	1/29/18	1539	5							
BP-102-12	G	SS	12	1/29/18	1643	5							01
BP-102-20	G	SS	20	1/29/18	1636	5							
BP-103-13	G	SS	13	1/30/18	858	5							
BP-104-13	G	SS	13	1/30/18	948	5							
BP-104-20	G	SS	20	1/30/18	948	5							
BP-102-W		GW		1/30/18	1002	12							02
BP-106-13	G	SS	13	1/30/18	1104	5							

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:
* See GRI email with analytical request

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier __ ______

Tracking # 4196 3261 3339

Sample Receipt Checklist
COC Seal Present/Intact: [✓ NP] _Y _N
COC Signed/Accurate: [✓ Y] _N
Bottles arrive intact: [✓ Y] _N
Correct bottles used: [✓ Y] _N
Sufficient volume sent: [✓ Y] _N
If Applicable
VOA Zero Headspace: [✓ Y] _N
Preservation Correct/Checked: [✓ Y] _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: [✓ Yes] / No 4 [✓ HCL] / MeoH TBR	
	2/2/18	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.5 °C Bottles Received: 245	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) 834	Date: 2·3·18 Time: 0845	Hold: Condition: [✓ NCF] / OK

GRI - Beaverton, OR

9750 SW Nimbus Avenue
Beaverton, OR 97008

Billing Information:

Patty Norgaard
9750 SW Nimbus Avenue
Beaverton, OR 97008

Pres Chk

Chain of Custody Page 2 of 4

ESC L·A·B S·C·I·E·N·C·E·S

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: **Nora Utevsky**

Email To: **nutevsky@gri.com; mmarshall@gri.com**

Project Description: 5764 SO 1195

City/State Collected: Coos Bay/OR

Phone: **503-641-3478**
Fax:

Client Project # **5764**

Lab Project # **GRIBOR-5764**

Collected by (print): N. Utevsky

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ___

L# 967603

Table #

Acctnum: **GRIBOR**
Template: **T131816**
Prelogin: **P635781**
TSR: **110 - Brian Ford**
PB: 1-19-18 MB
Shipped Via: **FedEX Ground**

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	M6010PP Metals 16ozClr-NoPres	NWTPHDX NOSGT 16ozClr-NoPres	NWTPHGX 40ml/NaHS04/Syr/MeOH	SV8270PAHSIMD PAHs 16ozClr-NoPres	V8260 VOCs 40ml/NaHS04/Syr/MeOH	Remarks	Sample # (lab only)
BP-107-12	G	SS	12	1/30/18	1140	5						*	
BP-108-13	G	SS	13	1/30/18	1309	5							
BP-108-17	G	SS	17	1/30/18	1302	5							
BP-109-W		GW		1/30/18	1320	12							
FO-110-W		GW		1/30/18	1415	12							
FO-111-8	G	SS	8	1/30/18	1500	5							
FO-112-9	G	SS	9	1/30/18	1537	5							13
FO-113-8	G	SS	8	1/30/18	1603	5							
FO-114-13	G	SS	13	1/30/18	1636	5							
FO-116-14	G	SS	14	1/31/18	0913	5							

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ________

Remarks:

*See note on Page 1

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ______

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: __Y ✓N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: [✓ Yes] / No [✓ HCL] / MeoH TBR 4
Relinquished by : (Signature)	Date: 2/2/18	Time: 0800	Received by: (Signature)	Temp: 1.5 °C Bottles Received: 245
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) 834	Date: 2-3-18 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: [✓ NCF] / OK

GRI - Beaverton, OR

9750 SW Nimbus Avenue
Beaverton, OR 97008

Billing Information:
Patty Norgaard
9750 SW Nimbus Avenue
Beaverton, OR 97008

Pres Chk

Email To: nutevsky@gri.com; mmarshall@gri.com

Report to:
Nora Utevsky

Project Description:

City/State Collected:

Phone: **503-641-3478**
Fax:

Client Project #
5764

Lab Project #
GRIBOR-5764

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N____ Y____

Analysis / Container / Preservative

Chain of Custody Page 3 of 4

ESC
L·A·B S·C·I·E·N·C·E·S
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 967603

Table #

Acctnum: **GRIBOR**
Template: **T131815**
Prelogin: **P635780**
TSR: **110 - Brian Ford**
PB: 1-19-18
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	FF Diss PP metals 250mlHDPE-HNO3	NWTPHDX NOSGT 100ml Amb-HCl	NWTPHGX 40mlAmb HCl	PAHSIMLVID PAHs 40mlAmb-NoPres-WT	Total PP Metals 6010 250mlHDPE-HNO3	V8260 VOCs 40mlAmb-HCl					Remarks	Sample # (lab only)
Pres Chk						PR	✓	✓			✓							
FO-111-W		GW		1/31/18	0920	~~12~~											*	04
FO-117-13	G	SS ~~GW~~	13	1/31/18	1021	5											↓	
FO-118-W		GW		1/31/18	1057	12												
FO-118-4	G	SS ~~GW~~	4	1/31/18	1115	5												
BP-119-W		GW		1/31/18	1530	12												05
BP-119-8	G	SS ~~GW~~	8		1555	5												06
BP-119-17	G	SS ~~GW~~	17	1/31/18	1545	5												
BP-119-33	G	SS ~~GW~~	33	1/31/18	1500	5												
BP-120-8	G	SS ~~GW~~	8	2/1/18	0940	5												
BP-120-11	G	SS ~~GW~~	11	2/1/18	0945	5											↓	

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:
* See note on page 1

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier __ ______

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: _Y ✓N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: ✓Y _N
Preservation Correct/Checked: ✓Y _N

Relinquished by : (Signature)
Date: 2/2/18
Time: 0800
Received by: (Signature)

Trip Blank Received: [✓ Yes] / No 4
[✓ HCL] / MeOH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: 1.5 M10 °C
Bottles Received: 245

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature) 834
Date: 2-3-18
Time: 0845

Hold:

Condition: NCF / OK

GRI - Beaverton, OR

9750 SW Nimbus Avenue
Beaverton, OR 97008

Billing Information:

Patty Norgaard
9750 SW Nimbus Avenue
Beaverton, OR 97008

Report to:
Nora Utevsky

Email To: **nutevsky@gri.com; mmarshall@gri.com**

Project Description: 5764-1195

City/State Collected: Coos Bay/OR

Phone: **503-641-3478**
Fax:

Client Project #
5764-1195

Lab Project #
GRIBOR-5764

Collected by (print): N. Utevsky

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page 4 of 4

ESC L·A·B S·C·I·E·N·C·E·S

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 947603

Table #

Acctnum: **GRIBOR**
Template: **T131815**
Prelogin: **P635780**
TSR: **110 - Brian Ford**
PB: 1-19-18

Shipped Via: **FedEX Ground**

Analysis / Container / Preservative

Pres Cnk	L2	L2			L2					

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	FF Diss PP metals 250mlHDPE-HNO3	NWTPHDX NOSGT 100ml Amb-HCl	NWTPHGX 40mlAmb HCl	PAHSIMLVID PAHs 40mlAmb-NoPres-WT	Total PP Metals 6010 250mlHDPE-HNO3	V8260 VOCs 40mlAmb-HCl	Remarks	Sample # (lab only)
BP-121-W	G	GW		2/1/18	1115	12							*	
BP-121-9	G	SS ~~GW~~	9	2/1/18	1110	5								
BP-122-7	G	SS ~~GW~~	7	2/1/18	1145	5								
BP-123-8	G	SS ~~GW~~	8	2/1/18	1245	5								
BP-125-13	G	SS ~~GW~~	13	2/1/18	1445	5								
BP-126-6	G	SS ~~GW~~	6	2/1/18	1520	5								
BP-127-8	G	SS ~~GW~~	8	2/1/18	1605	5								
BP-127-13	G	SS ~~GW~~	13	2/1/18	1610	5								
		GW												
		GW												

* Matrix:
SS - Soil **AIR** - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:
* See note on Page 1

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier __ ______

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: __Y ✓N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date: 2/2/18	Time: 0800	Received by: (Signature)	Trip Blank Received: [✓ Yes] / No 4 HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.5 °C Bottles Received: 245
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) 834	Date: 2-3-18 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: [✓ NCF] / OK

967603

Matt Shacklock

From: Jason Romer
Sent: Friday, February 02, 2018 2:48 PM
To: Login; Due SVOC; Due VOC
Cc: Brian Ford
Subject: Incoming RUSH - GRIBOR - arriving tomorrow, 02/03

All samples on the COC are unchecked for analysis. Please log as follows as **R3 due Wednesday, 02/07**. (T131815 and T131816) – please note we are NOT logging the Metals for these even though it's in the template and we may receive the containers.

Soils – log for NWTPHDXNOSGT, NWTPHGX, SV8270PAHSIMD, V8260, TERRACORE and TS
BP-102-12
FO-111-8
BP-119-8

Waters – log for NWTPHDXNOSGT, NWTPHGX, PAHSIMLVID and V8260
BP-102-W
FO-111-W
BP-119-W

All other samples will be PLACED ON HOLD pending results of the original RUSH samples above.

COC may not be marked RUSH

Thanks,
Jason Romer
Project Manager
ESC Lab Sciences-a subsidiary of Pace Analytical
12065 Lebanon Road | Mt. Juliet, TN 37122
800.767.5859 Ext. 9713| Direct 615.773.9713
jromer@esclabsciences.com | www.esclabsciences.com

Andy Vann

ESC
LAB SCIENCES
YOUR LAB OF CHOICE

Login #:9667603	Client: GRIBOR	Date:2/3	Evaluated by:Matt S

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
x	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:

1. **1 of 6 vials for FO-111-W received broken**
2. **Received TB broken**

Client informed by:		Call		Email	X	Voice Mail		Date: 02/05/18	Time: 0900
TSR Initials: JCR	Client Contact: Nora Utevsky								

Login Instructions:

1) Analyze from remaining containers received intact
2) Client informed.

ANALYTICAL REPORT

February 14, 2018

GRI - Beaverton, OR

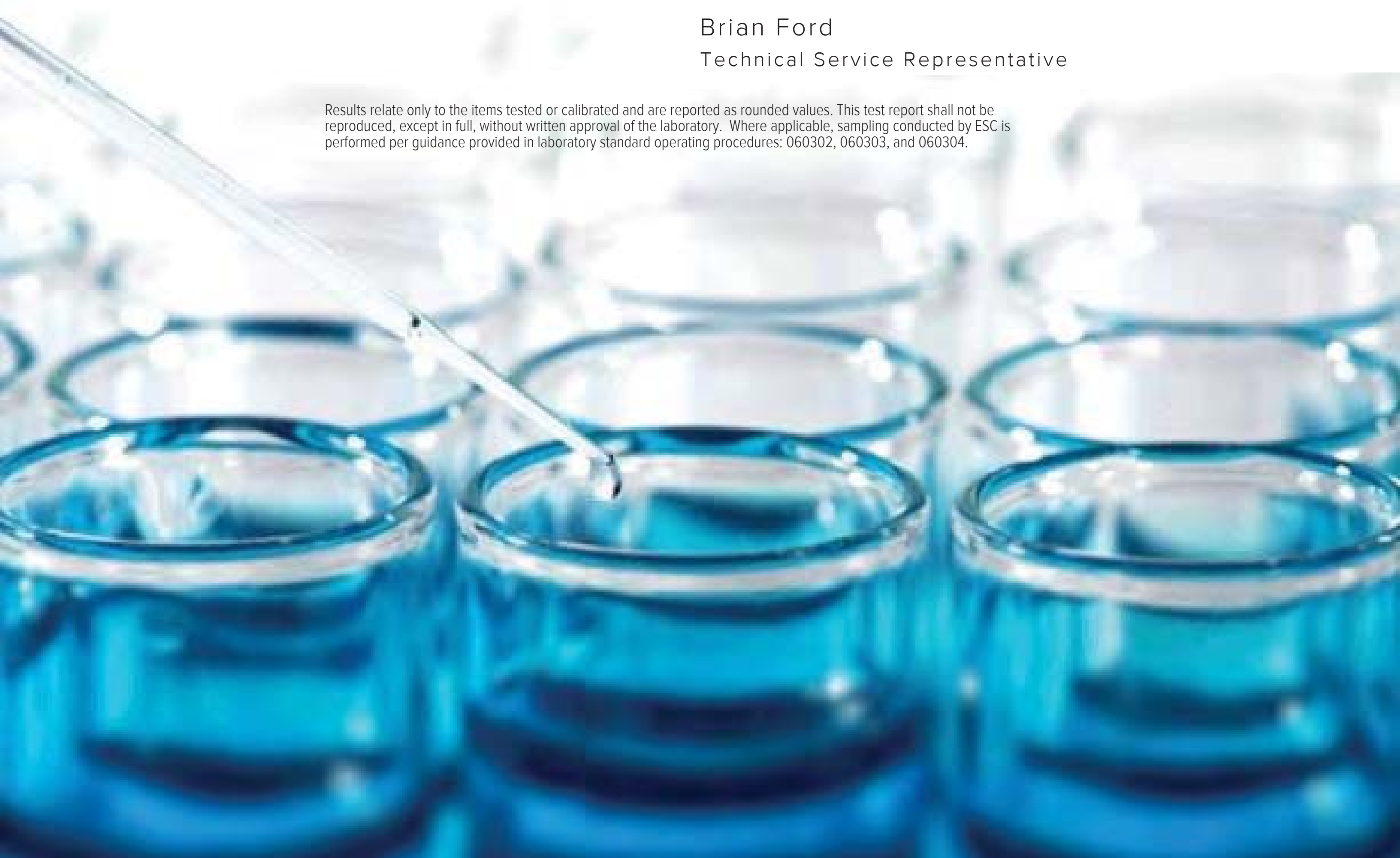
Sample Delivery Group:	L968449
Samples Received:	02/03/2018
Project Number:	5764-1195
Description:	5764-1195

Report To:

Nora Utevsky
9750 SW Nimbus Avenue
Beaverton, OR 97008

Entire Report Reviewed By: Brian Ford

Brian Ford
Technical Service Representative



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4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

BP-102-12 L968449-01 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/29/18 16:43	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1070464	1	02/06/18 14:30	02/06/18 14:43	JAV
Mercury by Method 7471A	WG1072718	1	02/12/18 19:37	02/13/18 08:40	ABL
Metals (ICP) by Method 6010B	WG1073100	1	02/13/18 14:48	02/13/18 19:51	ST

BP-102-W L968449-02 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 10:02	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1071210	1	02/08/18 12:11	02/09/18 08:32	TRB
Metals (ICP) by Method 6010B	WG1071350	1	02/08/18 12:08	02/08/18 21:58	TRB
Metals (ICPMS) by Method 6020	WG1071019	1	02/07/18 19:22	02/08/18 17:43	LAT

FO-111-W L968449-03 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 09:20	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1071210	1	02/08/18 12:11	02/09/18 08:34	TRB
Metals (ICP) by Method 6010B	WG1071350	1	02/08/18 12:08	02/08/18 22:02	TRB
Metals (ICPMS) by Method 6020	WG1071019	1	02/07/18 19:22	02/08/18 17:46	LAT

BP-119-W L968449-04 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 15:30	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1071210	1	02/08/18 12:11	02/09/18 08:36	TRB
Metals (ICP) by Method 6010B	WG1071350	1	02/08/18 12:08	02/08/18 22:05	TRB
Metals (ICPMS) by Method 6020	WG1071019	1	02/07/18 19:22	02/08/18 17:50	LAT

BP-119-8 L968449-05 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 15:55	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1070464	1	02/06/18 14:30	02/06/18 14:43	JAV
Mercury by Method 7471A	WG1072718	1	02/12/18 19:37	02/13/18 08:43	RDS
Metals (ICP) by Method 6010B	WG1073100	1	02/13/18 14:48	02/13/18 20:01	ST

BP-101-7 L968449-06 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/29/18 15:14	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 13:22	DMG

BP-101-30 L968449-07 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/29/18 15:39	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 13:43	DMG

BP-102-20 L968449-08 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/29/18 16:36	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 14:04	DMG

BP-103-13 L968449-09 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 08:58	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 14:24	DMG

BP-104-13 L968449-10 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 09:48	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 14:45	DMG

BP-104-20 L968449-11 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 09:48	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 15:06	DMG

BP-106-13 L968449-12 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 11:04	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 15:27	DMG

BP-107-12 L968449-13 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 11:40	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072596	1	02/12/18 11:04	02/12/18 11:15	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 15:47	DMG

BP-108-13 L968449-14 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 13:09	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072598	1	02/12/18 10:51	02/12/18 11:03	JD
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1071154	2	02/08/18 08:34	02/09/18 14:05	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 16:08	DMG

BP-108-17 L968449-15 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 13:02	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072598	1	02/12/18 10:51	02/12/18 11:03	JD
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 16:29	DMG

BP-109-W L968449-16 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 13:20	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1071210	1	02/08/18 12:11	02/09/18 07:42	TRB
Metals (ICP) by Method 6010B	WG1071350	1	02/08/18 12:08	02/08/18 22:15	TRB
Metals (ICPMS) by Method 6020	WG1071568	1	02/09/18 07:49	02/09/18 12:17	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071702	1	02/08/18 23:49	02/08/18 23:49	BMB
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071139	1	02/07/18 22:00	02/08/18 12:52	DMG

FO-110-W L968449-17 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 14:15	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1071210	1	02/08/18 12:11	02/09/18 08:38	TRB
Metals (ICP) by Method 6010B	WG1071350	1	02/08/18 12:08	02/08/18 22:18	TRB
Metals (ICPMS) by Method 6020	WG1071568	1	02/09/18 07:49	02/09/18 12:33	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071702	1	02/09/18 00:08	02/09/18 00:08	BMB
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071139	3	02/07/18 22:02	02/08/18 13:15	DMG

FO-113-8 L968449-18 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 16:03	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072598	1	02/12/18 10:51	02/12/18 11:03	JD
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 16:50	DMG

FO-114-13 L968449-19 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/30/18 16:36	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072598	1	02/12/18 10:51	02/12/18 11:03	JD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071579	1	01/30/18 16:36	02/10/18 14:26	ACG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 17:11	DMG

FO-116-14 L968449-20 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 09:13	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072601	1	02/12/18 10:00	02/12/18 10:15	KDW
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071579	1	01/31/18 09:13	02/10/18 14:47	ACG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 17:31	DMG

FO-118-W L968449-21 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 10:57	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071702	1	02/09/18 00:27	02/09/18 00:27	BMB
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071139	3	02/07/18 22:00	02/08/18 13:39	DMG

FO-118-4 L968449-22 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 11:15	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072601	1	02/12/18 10:00	02/12/18 10:15	KDW
Mercury by Method 7471A	WG1072718	1	02/12/18 19:37	02/13/18 08:30	ABL
Metals (ICP) by Method 6010B	WG1073100	1	02/13/18 14:48	02/13/18 20:04	ST
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1071154	1	02/08/18 08:34	02/09/18 12:57	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 17:52	DMG

BP-119-17 L968449-23 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 15:45	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072601	1	02/12/18 10:00	02/12/18 10:15	KDW
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071579	1	01/31/18 15:45	02/10/18 15:09	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1071154	1	02/08/18 08:34	02/09/18 13:10	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 18:13	DMG

BP-119-33 L968449-24 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	01/31/18 15:00	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072601	1	02/12/18 10:00	02/12/18 10:15	KDW
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1071154	1	02/08/18 08:34	02/09/18 13:24	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 19:15	DMG

BP-121-W L968449-25 GW

Collected by	Collected date/time	Received date/time
N. Utevsky	02/01/18 11:15	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071139	3	02/07/18 22:00	02/08/18 14:02	DMG

BP-121-9 L968449-26 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	02/01/18 11:10	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072603	1	02/12/18 10:17	02/12/18 10:29	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 19:36	DMG

BP-125-13 L968449-27 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	02/01/18 14:45	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072603	1	02/12/18 10:17	02/12/18 10:29	KDW
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1071154	1	02/08/18 08:34	02/09/18 13:38	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 19:56	DMG

BP-126-6 L968449-28 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	02/01/18 15:20	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072603	1	02/12/18 10:17	02/12/18 10:29	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	20	02/07/18 23:51	02/08/18 20:38	DMG

BP-127-8 L968449-29 Solid

Collected by	Collected date/time	Received date/time
N. Utevsky	02/01/18 16:05	02/03/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1072603	1	02/12/18 10:17	02/12/18 10:29	KDW
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1071161	1	02/07/18 23:51	02/08/18 20:17	DMG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford

Brian Ford
Technical Service Representative

BP-102-12
Collected date/time: 01/29/18 16:43

SAMPLE RESULTS - 01

L968449

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	80.3		1	02/06/2018 14:43	WG1070464

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0416	B	0.00349	0.0249	1	02/13/2018 08:40	WG1072718

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Antimony	U		0.934	2.49	1	02/13/2018 19:51	WG1073100
Arsenic	3.68		0.810	2.49	1	02/13/2018 19:51	WG1073100
Beryllium	0.146	J	0.0872	0.249	1	02/13/2018 19:51	WG1073100
Cadmium	U		0.0872	0.623	1	02/13/2018 19:51	WG1073100
Chromium	11.6		0.174	1.25	1	02/13/2018 19:51	WG1073100
Copper	10.8		0.660	2.49	1	02/13/2018 19:51	WG1073100
Lead	4.61		0.237	0.623	1	02/13/2018 19:51	WG1073100
Nickel	9.84		0.610	2.49	1	02/13/2018 19:51	WG1073100
Selenium	U		0.922	2.49	1	02/13/2018 19:51	WG1073100
Silver	U		0.349	1.25	1	02/13/2018 19:51	WG1073100
Thallium	U		0.810	2.49	1	02/13/2018 19:51	WG1073100
Zinc	26.7		0.735	6.23	1	02/13/2018 19:51	WG1073100

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0545	J J3	0.0490	0.200	1	02/09/2018 08:32	WG1071210

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Beryllium	U		0.700	2.00	1	02/08/2018 21:58	WG1071350
Cadmium	U		0.700	2.00	1	02/08/2018 21:58	WG1071350
Chromium	36.8		1.40	10.0	1	02/08/2018 21:58	WG1071350
Copper	19.4		5.30	10.0	1	02/08/2018 21:58	WG1071350
Nickel	19.3		4.90	10.0	1	02/08/2018 21:58	WG1071350
Selenium	U		7.40	10.0	1	02/08/2018 21:58	WG1071350
Silver	U		2.80	5.00	1	02/08/2018 21:58	WG1071350
Zinc	62.5		5.90	50.0	1	02/08/2018 21:58	WG1071350

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	02/08/2018 17:43	WG1071019
Arsenic	10.5		0.250	2.00	1	02/08/2018 17:43	WG1071019
Lead	10.3		0.240	2.00	1	02/08/2018 17:43	WG1071019
Thallium	0.372	J	0.190	2.00	1	02/08/2018 17:43	WG1071019

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0492	J J3	0.0490	0.200	1	02/09/2018 08:34	WG1071210

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Beryllium	U		0.700	2.00	1	02/08/2018 22:02	WG1071350
Cadmium	U		0.700	2.00	1	02/08/2018 22:02	WG1071350
Chromium	U		1.40	10.0	1	02/08/2018 22:02	WG1071350
Copper	U		5.30	10.0	1	02/08/2018 22:02	WG1071350
Nickel	U		4.90	10.0	1	02/08/2018 22:02	WG1071350
Selenium	U		7.40	10.0	1	02/08/2018 22:02	WG1071350
Silver	U		2.80	5.00	1	02/08/2018 22:02	WG1071350
Zinc	U		5.90	50.0	1	02/08/2018 22:02	WG1071350

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	02/08/2018 17:46	WG1071019
Arsenic	1.88	J	0.250	2.00	1	02/08/2018 17:46	WG1071019
Lead	0.827	J	0.240	2.00	1	02/08/2018 17:46	WG1071019
Thallium	U		0.190	2.00	1	02/08/2018 17:46	WG1071019

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Mercury	0.0542	J J3	0.0490	0.200	1	02/09/2018 08:36	WG1071210

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Beryllium	U		0.700	2.00	1	02/08/2018 22:05	WG1071350
Cadmium	U		0.700	2.00	1	02/08/2018 22:05	WG1071350
Chromium	3.13	J	1.40	10.0	1	02/08/2018 22:05	WG1071350
Copper	U		5.30	10.0	1	02/08/2018 22:05	WG1071350
Nickel	U		4.90	10.0	1	02/08/2018 22:05	WG1071350
Selenium	U		7.40	10.0	1	02/08/2018 22:05	WG1071350
Silver	U		2.80	5.00	1	02/08/2018 22:05	WG1071350
Zinc	U		5.90	50.0	1	02/08/2018 22:05	WG1071350

Metals (ICPMS) by Method 6020

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Antimony	U		0.754	2.00	1	02/08/2018 17:50	WG1071019
Arsenic	4.74		0.250	2.00	1	02/08/2018 17:50	WG1071019
Lead	0.716	J	0.240	2.00	1	02/08/2018 17:50	WG1071019
Thallium	U		0.190	2.00	1	02/08/2018 17:50	WG1071019

BP-119-8

Collected date/time: 01/31/18 15:55

SAMPLE RESULTS - 05

L968449

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	89.6		1	02/06/2018 14:43	WG1070464

Mercury by Method 7471A

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0119	B J	0.00313	0.0223	1	02/13/2018 08:43	WG1072718

Metals (ICP) by Method 6010B

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.837	2.23	1	02/13/2018 20:01	WG1073100
Arsenic	2.86		0.726	2.23	1	02/13/2018 20:01	WG1073100
Beryllium	0.105	J	0.0782	0.223	1	02/13/2018 20:01	WG1073100
Cadmium	U		0.0782	0.558	1	02/13/2018 20:01	WG1073100
Chromium	6.28		0.156	1.12	1	02/13/2018 20:01	WG1073100
Copper	2.22	J	0.592	2.23	1	02/13/2018 20:01	WG1073100
Lead	2.42		0.212	0.558	1	02/13/2018 20:01	WG1073100
Nickel	6.76		0.547	2.23	1	02/13/2018 20:01	WG1073100
Selenium	U		0.826	2.23	1	02/13/2018 20:01	WG1073100
Silver	U		0.313	1.12	1	02/13/2018 20:01	WG1073100
Thallium	U		0.726	2.23	1	02/13/2018 20:01	WG1073100
Zinc	11.4		0.659	5.58	1	02/13/2018 20:01	WG1073100

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	56.6	J3	1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.00130	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Acenaphthene	0.00496	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Acenaphthylene	0.00951	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Benzo(a)anthracene	0.00116	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Benzo(a)pyrene	U		0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Benzo(b)fluoranthene	U		0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Benzo(g,h,i)perylene	U		0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Benzo(k)fluoranthene	U		0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Chrysene	U		0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Dibenz(a,h)anthracene	U		0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Fluoranthene	0.00216	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Fluorene	0.00120	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Naphthalene	0.0785		0.00354	0.0354	1	02/08/2018 13:22	WG1071161
Phenanthrene	0.00455	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
Pyrene	0.00179	J	0.00106	0.0106	1	02/08/2018 13:22	WG1071161
1-Methylnaphthalene	0.0160	J	0.00354	0.0354	1	02/08/2018 13:22	WG1071161
2-Methylnaphthalene	0.0128	J	0.00354	0.0354	1	02/08/2018 13:22	WG1071161
2-Chloronaphthalene	U		0.00354	0.0354	1	02/08/2018 13:22	WG1071161
(S) Nitrobenzene-d5	*72.4*			*14.0-149*		*02/08/2018 13:22*	WG1071161
(S) 2-Fluorobiphenyl	*75.3*			*34.0-125*		*02/08/2018 13:22*	WG1071161
(S) p-Terphenyl-d14	*56.9*			*23.0-120*		*02/08/2018 13:22*	WG1071161

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	84.2		1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Acenaphthene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Acenaphthylene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Benzo(a)anthracene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Benzo(a)pyrene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Benzo(b)fluoranthene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Benzo(g,h,i)perylene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Benzo(k)fluoranthene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Chrysene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Dibenz(a,h)anthracene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Fluoranthene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Fluorene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Naphthalene	U		0.00237	0.0237	1	02/08/2018 13:43	WG1071161
Phenanthrene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
Pyrene	U		0.000712	0.00712	1	02/08/2018 13:43	WG1071161
1-Methylnaphthalene	U		0.00237	0.0237	1	02/08/2018 13:43	WG1071161
2-Methylnaphthalene	U		0.00237	0.0237	1	02/08/2018 13:43	WG1071161
2-Chloronaphthalene	U		0.00237	0.0237	1	02/08/2018 13:43	WG1071161
(S) Nitrobenzene-d5	*125*			*14.0-149*		*02/08/2018 13:43*	WG1071161
(S) 2-Fluorobiphenyl	*95.6*			*34.0-125*		*02/08/2018 13:43*	WG1071161
(S) p-Terphenyl-d14	*86.5*			*23.0-120*		*02/08/2018 13:43*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.3		1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Acenaphthene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Acenaphthylene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Benzo(a)anthracene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Benzo(a)pyrene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Benzo(b)fluoranthene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Benzo(g,h,i)perylene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Benzo(k)fluoranthene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Chrysene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Dibenz(a,h)anthracene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Fluoranthene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Fluorene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Naphthalene	U		0.00243	0.0243	1	02/08/2018 14:04	WG1071161
Phenanthrene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
Pyrene	U		0.000729	0.00729	1	02/08/2018 14:04	WG1071161
1-Methylnaphthalene	U		0.00243	0.0243	1	02/08/2018 14:04	WG1071161
2-Methylnaphthalene	U		0.00243	0.0243	1	02/08/2018 14:04	WG1071161
2-Chloronaphthalene	U		0.00243	0.0243	1	02/08/2018 14:04	WG1071161
(S) Nitrobenzene-d5	*119*			*14.0-149*		*02/08/2018 14:04*	WG1071161
(S) 2-Fluorobiphenyl	*93.3*			*34.0-125*		*02/08/2018 14:04*	WG1071161
(S) p-Terphenyl-d14	*86.1*			*23.0-120*		*02/08/2018 14:04*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	74.8		1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00149	J	0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Acenaphthene	0.00829		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Acenaphthylene	0.0135		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Benzo(a)anthracene	U		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Benzo(a)pyrene	U		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Benzo(b)fluoranthene	U		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Benzo(g,h,i)perylene	0.00127	J	0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Benzo(k)fluoranthene	U		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Chrysene	U		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Dibenz(a,h)anthracene	U		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Fluoranthene	0.00277	J	0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Fluorene	0.00258	J	0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Naphthalene	0.106		0.00267	0.0267	1	02/08/2018 14:24	WG1071161
Phenanthrene	0.00819		0.000802	0.00802	1	02/08/2018 14:24	WG1071161
Pyrene	0.00266	J	0.000802	0.00802	1	02/08/2018 14:24	WG1071161
1-Methylnaphthalene	0.00950	J	0.00267	0.0267	1	02/08/2018 14:24	WG1071161
2-Methylnaphthalene	0.0121	J	0.00267	0.0267	1	02/08/2018 14:24	WG1071161
2-Chloronaphthalene	U		0.00267	0.0267	1	02/08/2018 14:24	WG1071161
(S) Nitrobenzene-d5	*81.7*			*14.0-149*		*02/08/2018 14:24*	WG1071161
(S) 2-Fluorobiphenyl	*65.5*			*34.0-125*		*02/08/2018 14:24*	WG1071161
(S) p-Terphenyl-d14	*50.6*			*23.0-120*		*02/08/2018 14:24*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	23.3		1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Acenaphthene	0.00542	J	0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Acenaphthylene	0.0206	J	0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Benzo(a)anthracene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Benzo(a)pyrene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Benzo(b)fluoranthene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Benzo(g,h,i)perylene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Benzo(k)fluoranthene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Chrysene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Dibenz(a,h)anthracene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Fluoranthene	0.00442	J	0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Fluorene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Naphthalene	0.199		0.00859	0.0859	1	02/08/2018 14:45	WG1071161
Phenanthrene	0.00907	J	0.00258	0.0258	1	02/08/2018 14:45	WG1071161
Pyrene	0.00374	J	0.00258	0.0258	1	02/08/2018 14:45	WG1071161
1-Methylnaphthalene	U		0.00859	0.0859	1	02/08/2018 14:45	WG1071161
2-Methylnaphthalene	U		0.00859	0.0859	1	02/08/2018 14:45	WG1071161
2-Chloronaphthalene	U		0.00859	0.0859	1	02/08/2018 14:45	WG1071161
(S) Nitrobenzene-d5	*85.4*			*14.0-149*		*02/08/2018 14:45*	WG1071161
(S) 2-Fluorobiphenyl	*61.8*			*34.0-125*		*02/08/2018 14:45*	WG1071161
(S) p-Terphenyl-d14	*48.9*			*23.0-120*		*02/08/2018 14:45*	WG1071161

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	82.3		1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Acenaphthene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Acenaphthylene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Benzo(a)anthracene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Benzo(a)pyrene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Benzo(b)fluoranthene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Benzo(g,h,i)perylene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Benzo(k)fluoranthene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Chrysene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Dibenz(a,h)anthracene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Fluoranthene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Fluorene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Naphthalene	U		0.00243	0.0243	1	02/08/2018 15:06	WG1071161
Phenanthrene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
Pyrene	U		0.000729	0.00729	1	02/08/2018 15:06	WG1071161
1-Methylnaphthalene	U		0.00243	0.0243	1	02/08/2018 15:06	WG1071161
2-Methylnaphthalene	U		0.00243	0.0243	1	02/08/2018 15:06	WG1071161
2-Chloronaphthalene	U		0.00243	0.0243	1	02/08/2018 15:06	WG1071161
(S) Nitrobenzene-d5	*119*			*14.0-149*		*02/08/2018 15:06*	WG1071161
(S) 2-Fluorobiphenyl	*89.4*			*34.0-125*		*02/08/2018 15:06*	WG1071161
(S) p-Terphenyl-d14	*81.3*			*23.0-120*		*02/08/2018 15:06*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	80.5		1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Acenaphthene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Acenaphthylene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Benzo(a)anthracene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Benzo(a)pyrene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Benzo(b)fluoranthene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Benzo(g,h,i)perylene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Benzo(k)fluoranthene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Chrysene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Dibenz(a,h)anthracene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Fluoranthene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Fluorene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Naphthalene	U		0.00248	0.0248	1	02/08/2018 15:27	WG1071161
Phenanthrene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
Pyrene	U		0.000745	0.00745	1	02/08/2018 15:27	WG1071161
1-Methylnaphthalene	U		0.00248	0.0248	1	02/08/2018 15:27	WG1071161
2-Methylnaphthalene	U		0.00248	0.0248	1	02/08/2018 15:27	WG1071161
2-Chloronaphthalene	U		0.00248	0.0248	1	02/08/2018 15:27	WG1071161
(S) Nitrobenzene-d5	*121*			*14.0-149*		*02/08/2018 15:27*	WG1071161
(S) 2-Fluorobiphenyl	*89.6*			*34.0-125*		*02/08/2018 15:27*	WG1071161
(S) p-Terphenyl-d14	*63.2*			*23.0-120*		*02/08/2018 15:27*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.4		1	02/12/2018 11:15	WG1072596

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Acenaphthene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Acenaphthylene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Benzo(a)anthracene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Benzo(a)pyrene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Benzo(b)fluoranthene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Benzo(g,h,i)perylene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Benzo(k)fluoranthene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Chrysene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Dibenz(a,h)anthracene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Fluoranthene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Fluorene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Naphthalene	U		0.00240	0.0240	1	02/08/2018 15:47	WG1071161
Phenanthrene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
Pyrene	U		0.000720	0.00720	1	02/08/2018 15:47	WG1071161
1-Methylnaphthalene	U		0.00240	0.0240	1	02/08/2018 15:47	WG1071161
2-Methylnaphthalene	U		0.00240	0.0240	1	02/08/2018 15:47	WG1071161
2-Chloronaphthalene	U		0.00240	0.0240	1	02/08/2018 15:47	WG1071161
(S) Nitrobenzene-d5	*123*			*14.0-149*		*02/08/2018 15:47*	WG1071161
(S) 2-Fluorobiphenyl	*94.7*			*34.0-125*		*02/08/2018 15:47*	WG1071161
(S) p-Terphenyl-d14	*89.9*			*23.0-120*		*02/08/2018 15:47*	WG1071161

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	26.6		1	02/12/2018 11:03	WG1072598

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	85.1		9.93	30.1	2	02/09/2018 14:05	WG1071154
Residual Range Organics (RRO)	389		24.8	75.3	2	02/09/2018 14:05	WG1071154
(S) o-Terphenyl	*51.8*			*18.0-148*		*02/09/2018 14:05*	WG1071154

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.00391	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Acenaphthene	0.00718	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Acenaphthylene	0.0134	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Benzo(a)anthracene	0.00254	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Benzo(a)pyrene	U		0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Benzo(b)fluoranthene	U		0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Benzo(g,h,i)perylene	U		0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Benzo(k)fluoranthene	U		0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Chrysene	U		0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Dibenz(a,h)anthracene	U		0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Fluoranthene	0.00467	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Fluorene	0.00271	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Naphthalene	0.106		0.00753	0.0753	1	02/08/2018 16:08	WG1071161
Phenanthrene	0.0120	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
Pyrene	0.00442	J	0.00226	0.0226	1	02/08/2018 16:08	WG1071161
1-Methylnaphthalene	U		0.00753	0.0753	1	02/08/2018 16:08	WG1071161
2-Methylnaphthalene	0.00785	J	0.00753	0.0753	1	02/08/2018 16:08	WG1071161
2-Chloronaphthalene	U		0.00753	0.0753	1	02/08/2018 16:08	WG1071161
(S) Nitrobenzene-d5	*70.2*			*14.0-149*		*02/08/2018 16:08*	WG1071161
(S) 2-Fluorobiphenyl	*52.5*			*34.0-125*		*02/08/2018 16:08*	WG1071161
(S) p-Terphenyl-d14	*49.4*			*23.0-120*		*02/08/2018 16:08*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.7		1	02/12/2018 11:03	WG1072598

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Acenaphthene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Acenaphthylene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Benzo(a)anthracene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Benzo(a)pyrene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Benzo(b)fluoranthene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Benzo(g,h,i)perylene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Benzo(k)fluoranthene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Chrysene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Dibenz(a,h)anthracene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Fluoranthene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Fluorene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Naphthalene	U		0.00239	0.0239	1	02/08/2018 16:29	WG1071161
Phenanthrene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
Pyrene	U		0.000716	0.00716	1	02/08/2018 16:29	WG1071161
1-Methylnaphthalene	U		0.00239	0.0239	1	02/08/2018 16:29	WG1071161
2-Methylnaphthalene	U		0.00239	0.0239	1	02/08/2018 16:29	WG1071161
2-Chloronaphthalene	U		0.00239	0.0239	1	02/08/2018 16:29	WG1071161
(S) Nitrobenzene-d5	*119*			*14.0-149*		*02/08/2018 16:29*	WG1071161
(S) 2-Fluorobiphenyl	*94.9*			*34.0-125*		*02/08/2018 16:29*	WG1071161
(S) p-Terphenyl-d14	*87.3*			*23.0-120*		*02/08/2018 16:29*	WG1071161

BP-109-W
Collected date/time: 01/30/18 13:20

SAMPLE RESULTS - 16

L968449

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U	J3	0.0490	0.200	1	02/09/2018 07:42	WG1071210

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Beryllium	U		0.700	2.00	1	02/08/2018 22:15	WG1071350
Cadmium	U		0.700	2.00	1	02/08/2018 22:15	WG1071350
Chromium	5.00	J	1.40	10.0	1	02/08/2018 22:15	WG1071350
Copper	U		5.30	10.0	1	02/08/2018 22:15	WG1071350
Nickel	U		4.90	10.0	1	02/08/2018 22:15	WG1071350
Selenium	U		7.40	10.0	1	02/08/2018 22:15	WG1071350
Silver	U		2.80	5.00	1	02/08/2018 22:15	WG1071350
Zinc	7.90	J	5.90	50.0	1	02/08/2018 22:15	WG1071350

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	0.828	J	0.754	2.00	1	02/09/2018 12:17	WG1071568
Arsenic	3.01		0.250	2.00	1	02/09/2018 12:17	WG1071568
Lead	1.84	B J	0.240	2.00	1	02/09/2018 12:17	WG1071568
Thallium	0.280	B J	0.190	2.00	1	02/09/2018 12:17	WG1071568

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	02/08/2018 23:49	WG1071702
Acrolein	U	J4	8.87	50.0	1	02/08/2018 23:49	WG1071702
Acrylonitrile	U		1.87	10.0	1	02/08/2018 23:49	WG1071702
Benzene	U		0.331	1.00	1	02/08/2018 23:49	WG1071702
Bromobenzene	U		0.352	1.00	1	02/08/2018 23:49	WG1071702
Bromodichloromethane	U		0.380	1.00	1	02/08/2018 23:49	WG1071702
Bromoform	U		0.469	1.00	1	02/08/2018 23:49	WG1071702
Bromomethane	U		0.866	5.00	1	02/08/2018 23:49	WG1071702
n-Butylbenzene	U		0.361	1.00	1	02/08/2018 23:49	WG1071702
sec-Butylbenzene	U		0.365	1.00	1	02/08/2018 23:49	WG1071702
tert-Butylbenzene	U		0.399	1.00	1	02/08/2018 23:49	WG1071702
Carbon tetrachloride	U		0.379	1.00	1	02/08/2018 23:49	WG1071702
Chlorobenzene	U		0.348	1.00	1	02/08/2018 23:49	WG1071702
Chlorodibromomethane	U		0.327	1.00	1	02/08/2018 23:49	WG1071702
Chloroethane	U		0.453	5.00	1	02/08/2018 23:49	WG1071702
Chloroform	U		0.324	5.00	1	02/08/2018 23:49	WG1071702
Chloromethane	U		0.276	2.50	1	02/08/2018 23:49	WG1071702
2-Chlorotoluene	U		0.375	1.00	1	02/08/2018 23:49	WG1071702
4-Chlorotoluene	U		0.351	1.00	1	02/08/2018 23:49	WG1071702
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	02/08/2018 23:49	WG1071702
1,2-Dibromoethane	U		0.381	1.00	1	02/08/2018 23:49	WG1071702
Dibromomethane	U		0.346	1.00	1	02/08/2018 23:49	WG1071702
1,2-Dichlorobenzene	U		0.349	1.00	1	02/08/2018 23:49	WG1071702
1,3-Dichlorobenzene	U		0.220	1.00	1	02/08/2018 23:49	WG1071702
1,4-Dichlorobenzene	U		0.274	1.00	1	02/08/2018 23:49	WG1071702
Dichlorodifluoromethane	U		0.551	5.00	1	02/08/2018 23:49	WG1071702
1,1-Dichloroethane	U		0.259	1.00	1	02/08/2018 23:49	WG1071702
1,2-Dichloroethane	U		0.361	1.00	1	02/08/2018 23:49	WG1071702
1,1-Dichloroethene	U		0.398	1.00	1	02/08/2018 23:49	WG1071702

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
cis-1,2-Dichloroethene	U		0.260	1.00	1	02/08/2018 23:49	WG1071702
trans-1,2-Dichloroethene	U		0.396	1.00	1	02/08/2018 23:49	WG1071702
1,2-Dichloropropane	U		0.306	1.00	1	02/08/2018 23:49	WG1071702
1,1-Dichloropropene	U		0.352	1.00	1	02/08/2018 23:49	WG1071702
1,3-Dichloropropane	U		0.366	1.00	1	02/08/2018 23:49	WG1071702
cis-1,3-Dichloropropene	U		0.418	1.00	1	02/08/2018 23:49	WG1071702
trans-1,3-Dichloropropene	U		0.419	1.00	1	02/08/2018 23:49	WG1071702
2,2-Dichloropropane	U		0.321	1.00	1	02/08/2018 23:49	WG1071702
Di-isopropyl ether	U		0.320	1.00	1	02/08/2018 23:49	WG1071702
Ethylbenzene	U		0.384	1.00	1	02/08/2018 23:49	WG1071702
Hexachloro-1,3-butadiene	U		0.256	1.00	1	02/08/2018 23:49	WG1071702
Isopropylbenzene	U		0.326	1.00	1	02/08/2018 23:49	WG1071702
p-Isopropyltoluene	U		0.350	1.00	1	02/08/2018 23:49	WG1071702
2-Butanone (MEK)	U		3.93	10.0	1	02/08/2018 23:49	WG1071702
Methylene Chloride	U		1.00	5.00	1	02/08/2018 23:49	WG1071702
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	02/08/2018 23:49	WG1071702
Methyl tert-butyl ether	U		0.367	1.00	1	02/08/2018 23:49	WG1071702
Naphthalene	U		1.00	5.00	1	02/08/2018 23:49	WG1071702
n-Propylbenzene	U		0.349	1.00	1	02/08/2018 23:49	WG1071702
Styrene	U		0.307	1.00	1	02/08/2018 23:49	WG1071702
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	02/08/2018 23:49	WG1071702
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	02/08/2018 23:49	WG1071702
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	02/08/2018 23:49	WG1071702
Tetrachloroethene	U		0.372	1.00	1	02/08/2018 23:49	WG1071702
Toluene	U		0.412	1.00	1	02/08/2018 23:49	WG1071702
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/08/2018 23:49	WG1071702
1,2,4-Trichlorobenzene	U		0.355	1.00	1	02/08/2018 23:49	WG1071702
1,1,1-Trichloroethane	U		0.319	1.00	1	02/08/2018 23:49	WG1071702
1,1,2-Trichloroethane	U		0.383	1.00	1	02/08/2018 23:49	WG1071702
Trichloroethene	U		0.398	1.00	1	02/08/2018 23:49	WG1071702
Trichlorofluoromethane	U		1.20	5.00	1	02/08/2018 23:49	WG1071702
1,2,3-Trichloropropane	U		0.807	2.50	1	02/08/2018 23:49	WG1071702
1,2,4-Trimethylbenzene	U		0.373	1.00	1	02/08/2018 23:49	WG1071702
1,2,3-Trimethylbenzene	U		0.321	1.00	1	02/08/2018 23:49	WG1071702
1,3,5-Trimethylbenzene	U		0.387	1.00	1	02/08/2018 23:49	WG1071702
Vinyl chloride	U		0.259	1.00	1	02/08/2018 23:49	WG1071702
Xylenes, Total	U		1.06	3.00	1	02/08/2018 23:49	WG1071702
(S) Toluene-d8	*106*			*80.0-120*		*02/08/2018 23:49*	WG1071702
(S) Dibromofluoromethane	*84.3*			*76.0-123*		*02/08/2018 23:49*	WG1071702
(S) 4-Bromofluorobenzene	*94.0*			*80.0-120*		*02/08/2018 23:49*	WG1071702

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U	T8	0.0140	0.0500	1	02/08/2018 12:52	WG1071139
Acenaphthene	U	T8	0.0100	0.0500	1	02/08/2018 12:52	WG1071139
Acenaphthylene	U	T8	0.0120	0.0500	1	02/08/2018 12:52	WG1071139
Benzo(a)anthracene	U	T8	0.00410	0.0500	1	02/08/2018 12:52	WG1071139
Benzo(a)pyrene	U	T8	0.0116	0.0500	1	02/08/2018 12:52	WG1071139
Benzo(b)fluoranthene	0.00535	J T8	0.00212	0.0500	1	02/08/2018 12:52	WG1071139
Benzo(g,h,i)perylene	0.00313	J T8	0.00227	0.0500	1	02/08/2018 12:52	WG1071139
Benzo(k)fluoranthene	U	T8	0.0136	0.0500	1	02/08/2018 12:52	WG1071139
Chrysene	U	T8	0.0108	0.0500	1	02/08/2018 12:52	WG1071139
Dibenz(a,h)anthracene	U	T8	0.00396	0.0500	1	02/08/2018 12:52	WG1071139
Fluoranthene	U	T8	0.0157	0.0500	1	02/08/2018 12:52	WG1071139
Fluorene	U	T8	0.00850	0.0500	1	02/08/2018 12:52	WG1071139

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	U	T8	0.0148	0.0500	1	02/08/2018 12:52	WG1071139
Naphthalene	U	T8	0.0198	0.250	1	02/08/2018 12:52	WG1071139
Phenanthrene	U	T8	0.00820	0.0500	1	02/08/2018 12:52	WG1071139
Pyrene	U	T8	0.0117	0.0500	1	02/08/2018 12:52	WG1071139
1-Methylnaphthalene	U	T8	0.00821	0.250	1	02/08/2018 12:52	WG1071139
2-Methylnaphthalene	U	T8	0.00902	0.250	1	02/08/2018 12:52	WG1071139
2-Chloronaphthalene	U	T8	0.00647	0.250	1	02/08/2018 12:52	WG1071139
(S) Nitrobenzene-d5	*138*			*31.0-160*		*02/08/2018 12:52*	WG1071139
(S) 2-Fluorobiphenyl	*129*			*48.0-148*		*02/08/2018 12:52*	WG1071139
(S) p-Terphenyl-d14	*117*			*37.0-146*		*02/08/2018 12:52*	WG1071139

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0553	J J3	0.0490	0.200	1	02/09/2018 08:38	WG1071210

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Beryllium	1.35	J	0.700	2.00	1	02/08/2018 22:18	WG1071350
Cadmium	1.08	J	0.700	2.00	1	02/08/2018 22:18	WG1071350
Chromium	119		1.40	10.0	1	02/08/2018 22:18	WG1071350
Copper	92.5		5.30	10.0	1	02/08/2018 22:18	WG1071350
Nickel	82.3		4.90	10.0	1	02/08/2018 22:18	WG1071350
Selenium	U		7.40	10.0	1	02/08/2018 22:18	WG1071350
Silver	U		2.80	5.00	1	02/08/2018 22:18	WG1071350
Zinc	1050		5.90	50.0	1	02/08/2018 22:18	WG1071350

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	U		0.754	2.00	1	02/09/2018 12:33	WG1071568
Arsenic	12.4		0.250	2.00	1	02/09/2018 12:33	WG1071568
Lead	19.3		0.240	2.00	1	02/09/2018 12:33	WG1071568
Thallium	0.342	B J	0.190	2.00	1	02/09/2018 12:33	WG1071568

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	02/09/2018 00:08	WG1071702
Acrolein	U	J4	8.87	50.0	1	02/09/2018 00:08	WG1071702
Acrylonitrile	U		1.87	10.0	1	02/09/2018 00:08	WG1071702
Benzene	U		0.331	1.00	1	02/09/2018 00:08	WG1071702
Bromobenzene	U		0.352	1.00	1	02/09/2018 00:08	WG1071702
Bromodichloromethane	U		0.380	1.00	1	02/09/2018 00:08	WG1071702
Bromoform	U		0.469	1.00	1	02/09/2018 00:08	WG1071702
Bromomethane	U		0.866	5.00	1	02/09/2018 00:08	WG1071702
n-Butylbenzene	U		0.361	1.00	1	02/09/2018 00:08	WG1071702
sec-Butylbenzene	U		0.365	1.00	1	02/09/2018 00:08	WG1071702
tert-Butylbenzene	U		0.399	1.00	1	02/09/2018 00:08	WG1071702
Carbon tetrachloride	U		0.379	1.00	1	02/09/2018 00:08	WG1071702
Chlorobenzene	U		0.348	1.00	1	02/09/2018 00:08	WG1071702
Chlorodibromomethane	U		0.327	1.00	1	02/09/2018 00:08	WG1071702
Chloroethane	U		0.453	5.00	1	02/09/2018 00:08	WG1071702
Chloroform	U		0.324	5.00	1	02/09/2018 00:08	WG1071702
Chloromethane	U		0.276	2.50	1	02/09/2018 00:08	WG1071702
2-Chlorotoluene	U		0.375	1.00	1	02/09/2018 00:08	WG1071702
4-Chlorotoluene	U		0.351	1.00	1	02/09/2018 00:08	WG1071702
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	02/09/2018 00:08	WG1071702
1,2-Dibromoethane	U		0.381	1.00	1	02/09/2018 00:08	WG1071702
Dibromomethane	U		0.346	1.00	1	02/09/2018 00:08	WG1071702
1,2-Dichlorobenzene	U		0.349	1.00	1	02/09/2018 00:08	WG1071702
1,3-Dichlorobenzene	U		0.220	1.00	1	02/09/2018 00:08	WG1071702
1,4-Dichlorobenzene	U		0.274	1.00	1	02/09/2018 00:08	WG1071702
Dichlorodifluoromethane	U		0.551	5.00	1	02/09/2018 00:08	WG1071702
1,1-Dichloroethane	U		0.259	1.00	1	02/09/2018 00:08	WG1071702
1,2-Dichloroethane	U		0.361	1.00	1	02/09/2018 00:08	WG1071702
1,1-Dichloroethene	U		0.398	1.00	1	02/09/2018 00:08	WG1071702

Volatile Organic Compounds (GC/MS) by Method 8260B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
cis-1,2-Dichloroethene	U		0.260	1.00	1	02/09/2018 00:08	WG1071702
trans-1,2-Dichloroethene	U		0.396	1.00	1	02/09/2018 00:08	WG1071702
1,2-Dichloropropane	U		0.306	1.00	1	02/09/2018 00:08	WG1071702
1,1-Dichloropropene	U		0.352	1.00	1	02/09/2018 00:08	WG1071702
1,3-Dichloropropane	U		0.366	1.00	1	02/09/2018 00:08	WG1071702
cis-1,3-Dichloropropene	U		0.418	1.00	1	02/09/2018 00:08	WG1071702
trans-1,3-Dichloropropene	U		0.419	1.00	1	02/09/2018 00:08	WG1071702
2,2-Dichloropropane	U		0.321	1.00	1	02/09/2018 00:08	WG1071702
Di-isopropyl ether	U		0.320	1.00	1	02/09/2018 00:08	WG1071702
Ethylbenzene	U		0.384	1.00	1	02/09/2018 00:08	WG1071702
Hexachloro-1,3-butadiene	U		0.256	1.00	1	02/09/2018 00:08	WG1071702
Isopropylbenzene	U		0.326	1.00	1	02/09/2018 00:08	WG1071702
p-Isopropyltoluene	U		0.350	1.00	1	02/09/2018 00:08	WG1071702
2-Butanone (MEK)	U		3.93	10.0	1	02/09/2018 00:08	WG1071702
Methylene Chloride	U		1.00	5.00	1	02/09/2018 00:08	WG1071702
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	02/09/2018 00:08	WG1071702
Methyl tert-butyl ether	U		0.367	1.00	1	02/09/2018 00:08	WG1071702
Naphthalene	U		1.00	5.00	1	02/09/2018 00:08	WG1071702
n-Propylbenzene	U		0.349	1.00	1	02/09/2018 00:08	WG1071702
Styrene	U		0.307	1.00	1	02/09/2018 00:08	WG1071702
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	02/09/2018 00:08	WG1071702
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	02/09/2018 00:08	WG1071702
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	02/09/2018 00:08	WG1071702
Tetrachloroethene	U		0.372	1.00	1	02/09/2018 00:08	WG1071702
Toluene	U		0.412	1.00	1	02/09/2018 00:08	WG1071702
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/09/2018 00:08	WG1071702
1,2,4-Trichlorobenzene	U		0.355	1.00	1	02/09/2018 00:08	WG1071702
1,1,1-Trichloroethane	U		0.319	1.00	1	02/09/2018 00:08	WG1071702
1,1,2-Trichloroethane	U		0.383	1.00	1	02/09/2018 00:08	WG1071702
Trichloroethene	U		0.398	1.00	1	02/09/2018 00:08	WG1071702
Trichlorofluoromethane	U		1.20	5.00	1	02/09/2018 00:08	WG1071702
1,2,3-Trichloropropane	U		0.807	2.50	1	02/09/2018 00:08	WG1071702
1,2,4-Trimethylbenzene	U		0.373	1.00	1	02/09/2018 00:08	WG1071702
1,2,3-Trimethylbenzene	U		0.321	1.00	1	02/09/2018 00:08	WG1071702
1,3,5-Trimethylbenzene	U		0.387	1.00	1	02/09/2018 00:08	WG1071702
Vinyl chloride	U		0.259	1.00	1	02/09/2018 00:08	WG1071702
Xylenes, Total	U		1.06	3.00	1	02/09/2018 00:08	WG1071702
(S) Toluene-d8	*104*			*80.0-120*		*02/09/2018 00:08*	WG1071702
(S) Dibromofluoromethane	*83.3*			*76.0-123*		*02/09/2018 00:08*	WG1071702
(S) 4-Bromofluorobenzene	*97.4*			*80.0-120*		*02/09/2018 00:08*	WG1071702

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Anthracene	U	T8	0.0420	0.150	3	02/08/2018 13:15	WG1071139
Acenaphthene	U	T8	0.0300	0.150	3	02/08/2018 13:15	WG1071139
Acenaphthylene	U	T8	0.0360	0.150	3	02/08/2018 13:15	WG1071139
Benzo(a)anthracene	U	T8	0.0123	0.150	3	02/08/2018 13:15	WG1071139
Benzo(a)pyrene	U	T8	0.0348	0.150	3	02/08/2018 13:15	WG1071139
Benzo(b)fluoranthene	0.0255	J T8	0.00636	0.150	3	02/08/2018 13:15	WG1071139
Benzo(g,h,i)perylene	0.0986	J T8	0.00681	0.150	3	02/08/2018 13:15	WG1071139
Benzo(k)fluoranthene	U	T8	0.0408	0.150	3	02/08/2018 13:15	WG1071139
Chrysene	0.0355	J T8	0.0324	0.150	3	02/08/2018 13:15	WG1071139
Dibenz(a,h)anthracene	U	T8	0.0119	0.150	3	02/08/2018 13:15	WG1071139
Fluoranthene	U	T8	0.0471	0.150	3	02/08/2018 13:15	WG1071139
Fluorene	U	T8	0.0255	0.150	3	02/08/2018 13:15	WG1071139

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	U	T8	0.0444	0.150	3	02/08/2018 13:15	WG1071139
Naphthalene	U	T8	0.0594	0.750	3	02/08/2018 13:15	WG1071139
Phenanthrene	U	T8	0.0246	0.150	3	02/08/2018 13:15	WG1071139
Pyrene	0.0512	J T8	0.0351	0.150	3	02/08/2018 13:15	WG1071139
1-Methylnaphthalene	U	T8	0.0246	0.750	3	02/08/2018 13:15	WG1071139
2-Methylnaphthalene	U	T8	0.0271	0.750	3	02/08/2018 13:15	WG1071139
2-Chloronaphthalene	U	T8	0.0194	0.750	3	02/08/2018 13:15	WG1071139
(S) Nitrobenzene-d5	*110*			*31.0-160*		*02/08/2018 13:15*	WG1071139
(S) 2-Fluorobiphenyl	*96.6*			*48.0-148*		*02/08/2018 13:15*	WG1071139
(S) p-Terphenyl-d14	*75.3*			*37.0-146*		*02/08/2018 13:15*	WG1071139

Sample Narrative:

L968449-17 WG1071139: Cannot be analyzed at a lower dilution due to extract emulsion.

FO-113-8

Collected date/time: 01/30/18 16:03

SAMPLE RESULTS - 18

L968449

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.0		1	02/12/2018 11:03	WG1072598

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Acenaphthene	0.00185	J	0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Acenaphthylene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Benzo(a)anthracene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Benzo(a)pyrene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Benzo(b)fluoranthene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Benzo(g,h,i)perylene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Benzo(k)fluoranthene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Chrysene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Dibenz(a,h)anthracene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Fluoranthene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Fluorene	0.00104	J	0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Naphthalene	U		0.00241	0.0241	1	02/08/2018 16:50	WG1071161
Phenanthrene	U		0.000723	0.00723	1	02/08/2018 16:50	WG1071161
Pyrene	0.000835	J	0.000723	0.00723	1	02/08/2018 16:50	WG1071161
1-Methylnaphthalene	U		0.00241	0.0241	1	02/08/2018 16:50	WG1071161
2-Methylnaphthalene	U		0.00241	0.0241	1	02/08/2018 16:50	WG1071161
2-Chloronaphthalene	U		0.00241	0.0241	1	02/08/2018 16:50	WG1071161
(S) Nitrobenzene-d5	*119*			*14.0-149*		*02/08/2018 16:50*	WG1071161
(S) 2-Fluorobiphenyl	*89.0*			*34.0-125*		*02/08/2018 16:50*	WG1071161
(S) p-Terphenyl-d14	*64.9*			*23.0-120*		*02/08/2018 16:50*	WG1071161

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	75.7		1	02/12/2018 11:03	WG1072598

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	0.0186	J	0.0132	0.0660	1	02/10/2018 14:26	WG1071579
Acrylonitrile	U		0.00236	0.0132	1	02/10/2018 14:26	WG1071579
Benzene	U		0.000357	0.00132	1	02/10/2018 14:26	WG1071579
Bromobenzene	U		0.000375	0.00132	1	02/10/2018 14:26	WG1071579
Bromodichloromethane	U		0.000335	0.00132	1	02/10/2018 14:26	WG1071579
Bromoform	U		0.000560	0.00132	1	02/10/2018 14:26	WG1071579
Bromomethane	U		0.00177	0.00660	1	02/10/2018 14:26	WG1071579
n-Butylbenzene	U		0.000341	0.00132	1	02/10/2018 14:26	WG1071579
sec-Butylbenzene	U		0.000265	0.00132	1	02/10/2018 14:26	WG1071579
tert-Butylbenzene	U		0.000272	0.00132	1	02/10/2018 14:26	WG1071579
Carbon tetrachloride	U		0.000433	0.00132	1	02/10/2018 14:26	WG1071579
Chlorobenzene	U		0.000280	0.00132	1	02/10/2018 14:26	WG1071579
Chlorodibromomethane	U		0.000493	0.00132	1	02/10/2018 14:26	WG1071579
Chloroethane	U		0.00125	0.00660	1	02/10/2018 14:26	WG1071579
Chloroform	U		0.000302	0.00660	1	02/10/2018 14:26	WG1071579
Chloromethane	U		0.000495	0.00330	1	02/10/2018 14:26	WG1071579
2-Chlorotoluene	U		0.000398	0.00132	1	02/10/2018 14:26	WG1071579
4-Chlorotoluene	U		0.000317	0.00132	1	02/10/2018 14:26	WG1071579
1,2-Dibromo-3-Chloropropane	U		0.00139	0.00660	1	02/10/2018 14:26	WG1071579
1,2-Dibromoethane	U		0.000453	0.00132	1	02/10/2018 14:26	WG1071579
Dibromomethane	U		0.000505	0.00132	1	02/10/2018 14:26	WG1071579
1,2-Dichlorobenzene	U		0.000403	0.00132	1	02/10/2018 14:26	WG1071579
1,3-Dichlorobenzene	U		0.000316	0.00132	1	02/10/2018 14:26	WG1071579
1,4-Dichlorobenzene	U		0.000299	0.00132	1	02/10/2018 14:26	WG1071579
Dichlorodifluoromethane	U		0.000942	0.00660	1	02/10/2018 14:26	WG1071579
1,1-Dichloroethane	U		0.000263	0.00132	1	02/10/2018 14:26	WG1071579
1,2-Dichloroethane	U		0.000350	0.00132	1	02/10/2018 14:26	WG1071579
1,1-Dichloroethene	U		0.000400	0.00132	1	02/10/2018 14:26	WG1071579
cis-1,2-Dichloroethene	U		0.000310	0.00132	1	02/10/2018 14:26	WG1071579
trans-1,2-Dichloroethene	U		0.000349	0.00132	1	02/10/2018 14:26	WG1071579
1,2-Dichloropropane	U		0.000473	0.00132	1	02/10/2018 14:26	WG1071579
1,1-Dichloropropene	U		0.000419	0.00132	1	02/10/2018 14:26	WG1071579
1,3-Dichloropropane	U		0.000273	0.00132	1	02/10/2018 14:26	WG1071579
cis-1,3-Dichloropropene	U		0.000346	0.00132	1	02/10/2018 14:26	WG1071579
trans-1,3-Dichloropropene	U		0.000353	0.00132	1	02/10/2018 14:26	WG1071579
2,2-Dichloropropane	U		0.000369	0.00132	1	02/10/2018 14:26	WG1071579
Di-isopropyl ether	U		0.000328	0.00132	1	02/10/2018 14:26	WG1071579
Ethylbenzene	U		0.000392	0.00132	1	02/10/2018 14:26	WG1071579
Hexachloro-1,3-butadiene	U		0.000452	0.00132	1	02/10/2018 14:26	WG1071579
Isopropylbenzene	U		0.000321	0.00132	1	02/10/2018 14:26	WG1071579
p-Isopropyltoluene	U		0.000269	0.00132	1	02/10/2018 14:26	WG1071579
2-Butanone (MEK)	U		0.00618	0.0132	1	02/10/2018 14:26	WG1071579
Methylene Chloride	U		0.00132	0.00660	1	02/10/2018 14:26	WG1071579
4-Methyl-2-pentanone (MIBK)	U		0.00248	0.0132	1	02/10/2018 14:26	WG1071579
Methyl tert-butyl ether	U		0.000280	0.00132	1	02/10/2018 14:26	WG1071579
Naphthalene	U		0.00132	0.00660	1	02/10/2018 14:26	WG1071579
n-Propylbenzene	U		0.000272	0.00132	1	02/10/2018 14:26	WG1071579
Styrene	U		0.000309	0.00132	1	02/10/2018 14:26	WG1071579
1,1,1,2-Tetrachloroethane	U		0.000349	0.00132	1	02/10/2018 14:26	WG1071579
1,1,2,2-Tetrachloroethane	U		0.000482	0.00132	1	02/10/2018 14:26	WG1071579

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000482	0.00132	1	02/10/2018 14:26	WG1071579
Tetrachloroethene	U		0.000365	0.00132	1	02/10/2018 14:26	WG1071579
Toluene	U		0.000573	0.00660	1	02/10/2018 14:26	WG1071579
1,2,3-Trichlorobenzene	U		0.000404	0.00132	1	02/10/2018 14:26	WG1071579
1,2,4-Trichlorobenzene	U		0.000512	0.00132	1	02/10/2018 14:26	WG1071579
1,1,1-Trichloroethane	U		0.000378	0.00132	1	02/10/2018 14:26	WG1071579
1,1,2-Trichloroethane	U		0.000366	0.00132	1	02/10/2018 14:26	WG1071579
Trichloroethene	U		0.000369	0.00132	1	02/10/2018 14:26	WG1071579
Trichlorofluoromethane	U		0.000505	0.00660	1	02/10/2018 14:26	WG1071579
1,2,3-Trichloropropane	U		0.000979	0.00330	1	02/10/2018 14:26	WG1071579
1,2,4-Trimethylbenzene	U		0.000279	0.00132	1	02/10/2018 14:26	WG1071579
1,2,3-Trimethylbenzene	U		0.000379	0.00132	1	02/10/2018 14:26	WG1071579
1,3,5-Trimethylbenzene	U		0.000351	0.00132	1	02/10/2018 14:26	WG1071579
Vinyl chloride	U		0.000384	0.00132	1	02/10/2018 14:26	WG1071579
Xylenes, Total	U		0.000922	0.00396	1	02/10/2018 14:26	WG1071579
(S) Toluene-d8	*93.4*			*80.0-120*		*02/10/2018 14:26*	WG1071579
(S) Dibromofluoromethane	*113*			*74.0-131*		*02/10/2018 14:26*	WG1071579
(S) 4-Bromofluorobenzene	*106*			*64.0-132*		*02/10/2018 14:26*	WG1071579

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Acenaphthene	0.0180		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Acenaphthylene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Benzo(a)anthracene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Benzo(a)pyrene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Benzo(b)fluoranthene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Benzo(g,h,i)perylene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Benzo(k)fluoranthene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Chrysene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Dibenz(a,h)anthracene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Fluoranthene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Fluorene	0.00122	J	0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Naphthalene	0.0107	J	0.00264	0.0264	1	02/08/2018 17:11	WG1071161
Phenanthrene	0.000870	J	0.000792	0.00792	1	02/08/2018 17:11	WG1071161
Pyrene	U		0.000792	0.00792	1	02/08/2018 17:11	WG1071161
1-Methylnaphthalene	U		0.00264	0.0264	1	02/08/2018 17:11	WG1071161
2-Methylnaphthalene	U		0.00264	0.0264	1	02/08/2018 17:11	WG1071161
2-Chloronaphthalene	U		0.00264	0.0264	1	02/08/2018 17:11	WG1071161
(S) Nitrobenzene-d5	*80.1*			*14.0-149*		*02/08/2018 17:11*	WG1071161
(S) 2-Fluorobiphenyl	*70.2*			*34.0-125*		*02/08/2018 17:11*	WG1071161
(S) p-Terphenyl-d14	*51.4*			*23.0-120*		*02/08/2018 17:11*	WG1071161

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.4		1	02/12/2018 10:15	WG1072601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	0.0133	J V3	0.0120	0.0599	1	02/10/2018 14:47	WG1071579
Acrylonitrile	U		0.00215	0.0120	1	02/10/2018 14:47	WG1071579
Benzene	U		0.000324	0.00120	1	02/10/2018 14:47	WG1071579
Bromobenzene	U		0.000340	0.00120	1	02/10/2018 14:47	WG1071579
Bromodichloromethane	U		0.000305	0.00120	1	02/10/2018 14:47	WG1071579
Bromoform	U		0.000508	0.00120	1	02/10/2018 14:47	WG1071579
Bromomethane	U		0.00161	0.00599	1	02/10/2018 14:47	WG1071579
n-Butylbenzene	U		0.000309	0.00120	1	02/10/2018 14:47	WG1071579
sec-Butylbenzene	U		0.000241	0.00120	1	02/10/2018 14:47	WG1071579
tert-Butylbenzene	U		0.000247	0.00120	1	02/10/2018 14:47	WG1071579
Carbon tetrachloride	U		0.000393	0.00120	1	02/10/2018 14:47	WG1071579
Chlorobenzene	U		0.000254	0.00120	1	02/10/2018 14:47	WG1071579
Chlorodibromomethane	U		0.000447	0.00120	1	02/10/2018 14:47	WG1071579
Chloroethane	U		0.00113	0.00599	1	02/10/2018 14:47	WG1071579
Chloroform	U		0.000275	0.00599	1	02/10/2018 14:47	WG1071579
Chloromethane	U		0.000450	0.00300	1	02/10/2018 14:47	WG1071579
2-Chlorotoluene	U		0.000361	0.00120	1	02/10/2018 14:47	WG1071579
4-Chlorotoluene	U		0.000288	0.00120	1	02/10/2018 14:47	WG1071579
1,2-Dibromo-3-Chloropropane	U		0.00126	0.00599	1	02/10/2018 14:47	WG1071579
1,2-Dibromoethane	U		0.000411	0.00120	1	02/10/2018 14:47	WG1071579
Dibromomethane	U		0.000458	0.00120	1	02/10/2018 14:47	WG1071579
1,2-Dichlorobenzene	U		0.000366	0.00120	1	02/10/2018 14:47	WG1071579
1,3-Dichlorobenzene	U		0.000287	0.00120	1	02/10/2018 14:47	WG1071579
1,4-Dichlorobenzene	U		0.000271	0.00120	1	02/10/2018 14:47	WG1071579
Dichlorodifluoromethane	U		0.000855	0.00599	1	02/10/2018 14:47	WG1071579
1,1-Dichloroethane	U		0.000239	0.00120	1	02/10/2018 14:47	WG1071579
1,2-Dichloroethane	U		0.000318	0.00120	1	02/10/2018 14:47	WG1071579
1,1-Dichloroethene	U		0.000363	0.00120	1	02/10/2018 14:47	WG1071579
cis-1,2-Dichloroethene	U		0.000282	0.00120	1	02/10/2018 14:47	WG1071579
trans-1,2-Dichloroethene	U		0.000317	0.00120	1	02/10/2018 14:47	WG1071579
1,2-Dichloropropane	U		0.000429	0.00120	1	02/10/2018 14:47	WG1071579
1,1-Dichloropropene	U		0.000380	0.00120	1	02/10/2018 14:47	WG1071579
1,3-Dichloropropane	U		0.000248	0.00120	1	02/10/2018 14:47	WG1071579
cis-1,3-Dichloropropene	U		0.000314	0.00120	1	02/10/2018 14:47	WG1071579
trans-1,3-Dichloropropene	U		0.000320	0.00120	1	02/10/2018 14:47	WG1071579
2,2-Dichloropropane	U		0.000334	0.00120	1	02/10/2018 14:47	WG1071579
Di-isopropyl ether	U		0.000297	0.00120	1	02/10/2018 14:47	WG1071579
Ethylbenzene	U		0.000356	0.00120	1	02/10/2018 14:47	WG1071579
Hexachloro-1,3-butadiene	U		0.000410	0.00120	1	02/10/2018 14:47	WG1071579
Isopropylbenzene	U		0.000291	0.00120	1	02/10/2018 14:47	WG1071579
p-Isopropyltoluene	U		0.000245	0.00120	1	02/10/2018 14:47	WG1071579
2-Butanone (MEK)	U		0.00561	0.0120	1	02/10/2018 14:47	WG1071579
Methylene Chloride	U		0.00120	0.00599	1	02/10/2018 14:47	WG1071579
4-Methyl-2-pentanone (MIBK)	U		0.00225	0.0120	1	02/10/2018 14:47	WG1071579
Methyl tert-butyl ether	U		0.000254	0.00120	1	02/10/2018 14:47	WG1071579
Naphthalene	U		0.00120	0.00599	1	02/10/2018 14:47	WG1071579
n-Propylbenzene	U		0.000247	0.00120	1	02/10/2018 14:47	WG1071579
Styrene	U		0.000281	0.00120	1	02/10/2018 14:47	WG1071579
1,1,1,2-Tetrachloroethane	U		0.000317	0.00120	1	02/10/2018 14:47	WG1071579
1,1,2,2-Tetrachloroethane	U		0.000438	0.00120	1	02/10/2018 14:47	WG1071579

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000438	0.00120	1	02/10/2018 14:47	WG1071579
Tetrachloroethene	U		0.000331	0.00120	1	02/10/2018 14:47	WG1071579
Toluene	0.000567	J V3	0.000520	0.00599	1	02/10/2018 14:47	WG1071579
1,2,3-Trichlorobenzene	U		0.000367	0.00120	1	02/10/2018 14:47	WG1071579
1,2,4-Trichlorobenzene	U		0.000465	0.00120	1	02/10/2018 14:47	WG1071579
1,1,1-Trichloroethane	U		0.000343	0.00120	1	02/10/2018 14:47	WG1071579
1,1,2-Trichloroethane	U		0.000332	0.00120	1	02/10/2018 14:47	WG1071579
Trichloroethene	U		0.000334	0.00120	1	02/10/2018 14:47	WG1071579
Trichlorofluoromethane	U		0.000458	0.00599	1	02/10/2018 14:47	WG1071579
1,2,3-Trichloropropane	U		0.000888	0.00300	1	02/10/2018 14:47	WG1071579
1,2,4-Trimethylbenzene	0.000361	J V3	0.000253	0.00120	1	02/10/2018 14:47	WG1071579
1,2,3-Trimethylbenzene	U		0.000344	0.00120	1	02/10/2018 14:47	WG1071579
1,3,5-Trimethylbenzene	U		0.000319	0.00120	1	02/10/2018 14:47	WG1071579
Vinyl chloride	U		0.000349	0.00120	1	02/10/2018 14:47	WG1071579
Xylenes, Total	U		0.000837	0.00360	1	02/10/2018 14:47	WG1071579
(S) Toluene-d8	*92.2*			*80.0-120*		*02/10/2018 14:47*	WG1071579
(S) Dibromofluoromethane	*107*			*74.0-131*		*02/10/2018 14:47*	WG1071579
(S) 4-Bromofluorobenzene	*114*			*64.0-132*		*02/10/2018 14:47*	WG1071579

Sample Narrative:

L968449-20 WG1071579: Previous run also had low IS/SURR recovery. Matrix effect.

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Acenaphthene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Acenaphthylene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Benzo(a)anthracene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Benzo(a)pyrene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Benzo(b)fluoranthene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Benzo(g,h,i)perylene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Benzo(k)fluoranthene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Chrysene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Dibenz(a,h)anthracene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Fluoranthene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Fluorene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Naphthalene	U		0.00240	0.0240	1	02/08/2018 17:31	WG1071161
Phenanthrene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
Pyrene	U		0.000719	0.00719	1	02/08/2018 17:31	WG1071161
1-Methylnaphthalene	U		0.00240	0.0240	1	02/08/2018 17:31	WG1071161
2-Methylnaphthalene	U		0.00240	0.0240	1	02/08/2018 17:31	WG1071161
2-Chloronaphthalene	U		0.00240	0.0240	1	02/08/2018 17:31	WG1071161
(S) Nitrobenzene-d5	*116*			*14.0-149*		*02/08/2018 17:31*	WG1071161
(S) 2-Fluorobiphenyl	*90.0*			*34.0-125*		*02/08/2018 17:31*	WG1071161
(S) p-Terphenyl-d14	*93.8*			*23.0-120*		*02/08/2018 17:31*	WG1071161

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	02/09/2018 00:27	WG1071702
Acrolein	U	J4	8.87	50.0	1	02/09/2018 00:27	WG1071702
Acrylonitrile	U		1.87	10.0	1	02/09/2018 00:27	WG1071702
Benzene	U		0.331	1.00	1	02/09/2018 00:27	WG1071702
Bromobenzene	U		0.352	1.00	1	02/09/2018 00:27	WG1071702
Bromodichloromethane	U		0.380	1.00	1	02/09/2018 00:27	WG1071702
Bromoform	U		0.469	1.00	1	02/09/2018 00:27	WG1071702
Bromomethane	U		0.866	5.00	1	02/09/2018 00:27	WG1071702
n-Butylbenzene	U		0.361	1.00	1	02/09/2018 00:27	WG1071702
sec-Butylbenzene	U		0.365	1.00	1	02/09/2018 00:27	WG1071702
tert-Butylbenzene	U		0.399	1.00	1	02/09/2018 00:27	WG1071702
Carbon tetrachloride	U		0.379	1.00	1	02/09/2018 00:27	WG1071702
Chlorobenzene	U		0.348	1.00	1	02/09/2018 00:27	WG1071702
Chlorodibromomethane	U		0.327	1.00	1	02/09/2018 00:27	WG1071702
Chloroethane	U		0.453	5.00	1	02/09/2018 00:27	WG1071702
Chloroform	U		0.324	5.00	1	02/09/2018 00:27	WG1071702
Chloromethane	U		0.276	2.50	1	02/09/2018 00:27	WG1071702
2-Chlorotoluene	U		0.375	1.00	1	02/09/2018 00:27	WG1071702
4-Chlorotoluene	U		0.351	1.00	1	02/09/2018 00:27	WG1071702
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	02/09/2018 00:27	WG1071702
1,2-Dibromoethane	U		0.381	1.00	1	02/09/2018 00:27	WG1071702
Dibromomethane	U		0.346	1.00	1	02/09/2018 00:27	WG1071702
1,2-Dichlorobenzene	U		0.349	1.00	1	02/09/2018 00:27	WG1071702
1,3-Dichlorobenzene	U		0.220	1.00	1	02/09/2018 00:27	WG1071702
1,4-Dichlorobenzene	U		0.274	1.00	1	02/09/2018 00:27	WG1071702
Dichlorodifluoromethane	U		0.551	5.00	1	02/09/2018 00:27	WG1071702
1,1-Dichloroethane	U		0.259	1.00	1	02/09/2018 00:27	WG1071702
1,2-Dichloroethane	U		0.361	1.00	1	02/09/2018 00:27	WG1071702
1,1-Dichloroethene	U		0.398	1.00	1	02/09/2018 00:27	WG1071702
cis-1,2-Dichloroethene	U		0.260	1.00	1	02/09/2018 00:27	WG1071702
trans-1,2-Dichloroethene	U		0.396	1.00	1	02/09/2018 00:27	WG1071702
1,2-Dichloropropane	U		0.306	1.00	1	02/09/2018 00:27	WG1071702
1,1-Dichloropropene	U		0.352	1.00	1	02/09/2018 00:27	WG1071702
1,3-Dichloropropane	U		0.366	1.00	1	02/09/2018 00:27	WG1071702
cis-1,3-Dichloropropene	U		0.418	1.00	1	02/09/2018 00:27	WG1071702
trans-1,3-Dichloropropene	U		0.419	1.00	1	02/09/2018 00:27	WG1071702
2,2-Dichloropropane	U		0.321	1.00	1	02/09/2018 00:27	WG1071702
Di-isopropyl ether	U		0.320	1.00	1	02/09/2018 00:27	WG1071702
Ethylbenzene	U		0.384	1.00	1	02/09/2018 00:27	WG1071702
Hexachloro-1,3-butadiene	U		0.256	1.00	1	02/09/2018 00:27	WG1071702
Isopropylbenzene	U		0.326	1.00	1	02/09/2018 00:27	WG1071702
p-Isopropyltoluene	U		0.350	1.00	1	02/09/2018 00:27	WG1071702
2-Butanone (MEK)	U		3.93	10.0	1	02/09/2018 00:27	WG1071702
Methylene Chloride	U		1.00	5.00	1	02/09/2018 00:27	WG1071702
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	02/09/2018 00:27	WG1071702
Methyl tert-butyl ether	U		0.367	1.00	1	02/09/2018 00:27	WG1071702
Naphthalene	U		1.00	5.00	1	02/09/2018 00:27	WG1071702
n-Propylbenzene	U		0.349	1.00	1	02/09/2018 00:27	WG1071702
Styrene	U		0.307	1.00	1	02/09/2018 00:27	WG1071702
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	02/09/2018 00:27	WG1071702
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	02/09/2018 00:27	WG1071702
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	02/09/2018 00:27	WG1071702
Tetrachloroethene	U		0.372	1.00	1	02/09/2018 00:27	WG1071702
Toluene	U		0.412	1.00	1	02/09/2018 00:27	WG1071702
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/09/2018 00:27	WG1071702
1,2,4-Trichlorobenzene	U		0.355	1.00	1	02/09/2018 00:27	WG1071702

FO-118-W

Collected date/time: 01/31/18 10:57

SAMPLE RESULTS - 21

L968449

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	02/09/2018 00:27	WG1071702
1,1,2-Trichloroethane	U		0.383	1.00	1	02/09/2018 00:27	WG1071702
Trichloroethene	U		0.398	1.00	1	02/09/2018 00:27	WG1071702
Trichlorofluoromethane	U		1.20	5.00	1	02/09/2018 00:27	WG1071702
1,2,3-Trichloropropane	U		0.807	2.50	1	02/09/2018 00:27	WG1071702
1,2,4-Trimethylbenzene	U		0.373	1.00	1	02/09/2018 00:27	WG1071702
1,2,3-Trimethylbenzene	U		0.321	1.00	1	02/09/2018 00:27	WG1071702
1,3,5-Trimethylbenzene	U		0.387	1.00	1	02/09/2018 00:27	WG1071702
Vinyl chloride	U		0.259	1.00	1	02/09/2018 00:27	WG1071702
Xylenes, Total	U		1.06	3.00	1	02/09/2018 00:27	WG1071702
(S) Toluene-d8	*107*			*80.0-120*		*02/09/2018 00:27*	WG1071702
(S) Dibromofluoromethane	*85.6*			*76.0-123*		*02/09/2018 00:27*	WG1071702
(S) 4-Bromofluorobenzene	*95.0*			*80.0-120*		*02/09/2018 00:27*	WG1071702

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0420	0.150	3	02/08/2018 13:39	WG1071139
Acenaphthene	U		0.0300	0.150	3	02/08/2018 13:39	WG1071139
Acenaphthylene	U		0.0360	0.150	3	02/08/2018 13:39	WG1071139
Benzo(a)anthracene	U		0.0123	0.150	3	02/08/2018 13:39	WG1071139
Benzo(a)pyrene	U		0.0348	0.150	3	02/08/2018 13:39	WG1071139
Benzo(b)fluoranthene	U		0.00636	0.150	3	02/08/2018 13:39	WG1071139
Benzo(g,h,i)perylene	U		0.00681	0.150	3	02/08/2018 13:39	WG1071139
Benzo(k)fluoranthene	U		0.0408	0.150	3	02/08/2018 13:39	WG1071139
Chrysene	U		0.0324	0.150	3	02/08/2018 13:39	WG1071139
Dibenz(a,h)anthracene	U		0.0119	0.150	3	02/08/2018 13:39	WG1071139
Fluoranthene	U		0.0471	0.150	3	02/08/2018 13:39	WG1071139
Fluorene	U		0.0255	0.150	3	02/08/2018 13:39	WG1071139
Indeno(1,2,3-cd)pyrene	U		0.0444	0.150	3	02/08/2018 13:39	WG1071139
Naphthalene	0.0599	J	0.0594	0.750	3	02/08/2018 13:39	WG1071139
Phenanthrene	U		0.0246	0.150	3	02/08/2018 13:39	WG1071139
Pyrene	U		0.0351	0.150	3	02/08/2018 13:39	WG1071139
1-Methylnaphthalene	U		0.0246	0.750	3	02/08/2018 13:39	WG1071139
2-Methylnaphthalene	U		0.0271	0.750	3	02/08/2018 13:39	WG1071139
2-Chloronaphthalene	U		0.0194	0.750	3	02/08/2018 13:39	WG1071139
(S) Nitrobenzene-d5	*116*			*31.0-160*		*02/08/2018 13:39*	WG1071139
(S) 2-Fluorobiphenyl	*108*			*48.0-148*		*02/08/2018 13:39*	WG1071139
(S) p-Terphenyl-d14	*91.8*			*37.0-146*		*02/08/2018 13:39*	WG1071139

Sample Narrative:

L968449-21 WG1071139: Cannot be analyzed at a lower dilution due to extract emulsion.

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	82.6		1	02/12/2018 10:15	WG1072601

Mercury by Method 7471A

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.00807	B J	0.00339	0.0242	1	02/13/2018 08:30	WG1072718

Metals (ICP) by Method 6010B

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.908	2.42	1	02/13/2018 20:04	WG1073100
Arsenic	3.12		0.787	2.42	1	02/13/2018 20:04	WG1073100
Beryllium	0.106	J	0.0848	0.242	1	02/13/2018 20:04	WG1073100
Cadmium	U		0.0848	0.606	1	02/13/2018 20:04	WG1073100
Chromium	7.50		0.170	1.21	1	02/13/2018 20:04	WG1073100
Copper	2.84		0.642	2.42	1	02/13/2018 20:04	WG1073100
Lead	6.54		0.230	0.606	1	02/13/2018 20:04	WG1073100
Nickel	5.30		0.593	2.42	1	02/13/2018 20:04	WG1073100
Selenium	U		0.896	2.42	1	02/13/2018 20:04	WG1073100
Silver	U		0.339	1.21	1	02/13/2018 20:04	WG1073100
Thallium	U		0.787	2.42	1	02/13/2018 20:04	WG1073100
Zinc	28.1		0.715	6.06	1	02/13/2018 20:04	WG1073100

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	3.45	J	1.60	4.84	1	02/09/2018 12:57	WG1071154
Residual Range Organics (RRO)	U		4.00	12.1	1	02/09/2018 12:57	WG1071154
(S) o-Terphenyl	*65.5*			*18.0-148*		*02/09/2018 12:57*	WG1071154

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Acenaphthene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Acenaphthylene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Benzo(a)anthracene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Benzo(a)pyrene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Benzo(b)fluoranthene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Benzo(g,h,i)perylene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Benzo(k)fluoranthene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Chrysene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Dibenz(a,h)anthracene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Fluoranthene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Fluorene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Naphthalene	U		0.00242	0.0242	1	02/08/2018 17:52	WG1071161
Phenanthrene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
Pyrene	U		0.000727	0.00727	1	02/08/2018 17:52	WG1071161
1-Methylnaphthalene	U		0.00242	0.0242	1	02/08/2018 17:52	WG1071161
2-Methylnaphthalene	U		0.00242	0.0242	1	02/08/2018 17:52	WG1071161
2-Chloronaphthalene	U		0.00242	0.0242	1	02/08/2018 17:52	WG1071161
(S) Nitrobenzene-d5	*108*			*14.0-149*		*02/08/2018 17:52*	WG1071161
(S) 2-Fluorobiphenyl	*79.3*			*34.0-125*		*02/08/2018 17:52*	WG1071161

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	*62.6*			*23.0-120*		*02/08/2018 17:52*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.3		1	02/12/2018 10:15	WG1072601

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	0.0188	J	0.0120	0.0600	1	02/10/2018 15:09	WG1071579
Acrylonitrile	U		0.00215	0.0120	1	02/10/2018 15:09	WG1071579
Benzene	U		0.000324	0.00120	1	02/10/2018 15:09	WG1071579
Bromobenzene	U		0.000341	0.00120	1	02/10/2018 15:09	WG1071579
Bromodichloromethane	U		0.000305	0.00120	1	02/10/2018 15:09	WG1071579
Bromoform	U		0.000509	0.00120	1	02/10/2018 15:09	WG1071579
Bromomethane	U		0.00161	0.00600	1	02/10/2018 15:09	WG1071579
n-Butylbenzene	U		0.000310	0.00120	1	02/10/2018 15:09	WG1071579
sec-Butylbenzene	U		0.000241	0.00120	1	02/10/2018 15:09	WG1071579
tert-Butylbenzene	U		0.000247	0.00120	1	02/10/2018 15:09	WG1071579
Carbon tetrachloride	U		0.000394	0.00120	1	02/10/2018 15:09	WG1071579
Chlorobenzene	U		0.000255	0.00120	1	02/10/2018 15:09	WG1071579
Chlorodibromomethane	U		0.000448	0.00120	1	02/10/2018 15:09	WG1071579
Chloroethane	U		0.00114	0.00600	1	02/10/2018 15:09	WG1071579
Chloroform	U		0.000275	0.00600	1	02/10/2018 15:09	WG1071579
Chloromethane	U		0.000450	0.00300	1	02/10/2018 15:09	WG1071579
2-Chlorotoluene	U		0.000361	0.00120	1	02/10/2018 15:09	WG1071579
4-Chlorotoluene	U		0.000288	0.00120	1	02/10/2018 15:09	WG1071579
1,2-Dibromo-3-Chloropropane	U		0.00126	0.00600	1	02/10/2018 15:09	WG1071579
1,2-Dibromoethane	U		0.000412	0.00120	1	02/10/2018 15:09	WG1071579
Dibromomethane	U		0.000459	0.00120	1	02/10/2018 15:09	WG1071579
1,2-Dichlorobenzene	U		0.000366	0.00120	1	02/10/2018 15:09	WG1071579
1,3-Dichlorobenzene	U		0.000287	0.00120	1	02/10/2018 15:09	WG1071579
1,4-Dichlorobenzene	U		0.000271	0.00120	1	02/10/2018 15:09	WG1071579
Dichlorodifluoromethane	U		0.000856	0.00600	1	02/10/2018 15:09	WG1071579
1,1-Dichloroethane	U		0.000239	0.00120	1	02/10/2018 15:09	WG1071579
1,2-Dichloroethane	U		0.000318	0.00120	1	02/10/2018 15:09	WG1071579
1,1-Dichloroethene	U		0.000364	0.00120	1	02/10/2018 15:09	WG1071579
cis-1,2-Dichloroethene	U		0.000282	0.00120	1	02/10/2018 15:09	WG1071579
trans-1,2-Dichloroethene	U		0.000317	0.00120	1	02/10/2018 15:09	WG1071579
1,2-Dichloropropane	U		0.000430	0.00120	1	02/10/2018 15:09	WG1071579
1,1-Dichloropropene	U		0.000381	0.00120	1	02/10/2018 15:09	WG1071579
1,3-Dichloropropane	U		0.000249	0.00120	1	02/10/2018 15:09	WG1071579
cis-1,3-Dichloropropene	U		0.000315	0.00120	1	02/10/2018 15:09	WG1071579
trans-1,3-Dichloropropene	U		0.000321	0.00120	1	02/10/2018 15:09	WG1071579
2,2-Dichloropropane	U		0.000335	0.00120	1	02/10/2018 15:09	WG1071579
Di-isopropyl ether	U		0.000298	0.00120	1	02/10/2018 15:09	WG1071579
Ethylbenzene	U		0.000357	0.00120	1	02/10/2018 15:09	WG1071579
Hexachloro-1,3-butadiene	U		0.000411	0.00120	1	02/10/2018 15:09	WG1071579
Isopropylbenzene	U		0.000292	0.00120	1	02/10/2018 15:09	WG1071579
p-Isopropyltoluene	U		0.000245	0.00120	1	02/10/2018 15:09	WG1071579
2-Butanone (MEK)	U		0.00562	0.0120	1	02/10/2018 15:09	WG1071579
Methylene Chloride	U		0.00120	0.00600	1	02/10/2018 15:09	WG1071579
4-Methyl-2-pentanone (MIBK)	U		0.00226	0.0120	1	02/10/2018 15:09	WG1071579
Methyl tert-butyl ether	U		0.000255	0.00120	1	02/10/2018 15:09	WG1071579
Naphthalene	U		0.00120	0.00600	1	02/10/2018 15:09	WG1071579
n-Propylbenzene	U		0.000247	0.00120	1	02/10/2018 15:09	WG1071579
Styrene	U		0.000281	0.00120	1	02/10/2018 15:09	WG1071579
1,1,1,2-Tetrachloroethane	U		0.000317	0.00120	1	02/10/2018 15:09	WG1071579
1,1,2,2-Tetrachloroethane	U		0.000438	0.00120	1	02/10/2018 15:09	WG1071579

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000438	0.00120	1	02/10/2018 15:09	WG1071579
Tetrachloroethene	U		0.000331	0.00120	1	02/10/2018 15:09	WG1071579
Toluene	U		0.000521	0.00600	1	02/10/2018 15:09	WG1071579
1,2,3-Trichlorobenzene	U		0.000367	0.00120	1	02/10/2018 15:09	WG1071579
1,2,4-Trichlorobenzene	U		0.000466	0.00120	1	02/10/2018 15:09	WG1071579
1,1,1-Trichloroethane	U		0.000343	0.00120	1	02/10/2018 15:09	WG1071579
1,1,2-Trichloroethane	U		0.000333	0.00120	1	02/10/2018 15:09	WG1071579
Trichloroethene	U		0.000335	0.00120	1	02/10/2018 15:09	WG1071579
Trichlorofluoromethane	U		0.000459	0.00600	1	02/10/2018 15:09	WG1071579
1,2,3-Trichloropropane	U		0.000890	0.00300	1	02/10/2018 15:09	WG1071579
1,2,4-Trimethylbenzene	U		0.000253	0.00120	1	02/10/2018 15:09	WG1071579
1,2,3-Trimethylbenzene	U		0.000345	0.00120	1	02/10/2018 15:09	WG1071579
1,3,5-Trimethylbenzene	U		0.000319	0.00120	1	02/10/2018 15:09	WG1071579
Vinyl chloride	U		0.000349	0.00120	1	02/10/2018 15:09	WG1071579
Xylenes, Total	U		0.000838	0.00360	1	02/10/2018 15:09	WG1071579
(S) Toluene-d8	*90.7*			*80.0-120*		*02/10/2018 15:09*	WG1071579
(S) Dibromofluoromethane	*112*			*74.0-131*		*02/10/2018 15:09*	WG1071579
(S) 4-Bromofluorobenzene	*112*			*64.0-132*		*02/10/2018 15:09*	WG1071579

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.58	4.80	1	02/09/2018 13:10	WG1071154
Residual Range Organics (RRO)	5.79	J	3.96	12.0	1	02/09/2018 13:10	WG1071154
(S) o-Terphenyl	*63.6*			*18.0-148*		*02/09/2018 13:10*	WG1071154

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00241	J	0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Acenaphthene	0.00376	J	0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Acenaphthylene	0.000818	J	0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Benzo(a)anthracene	0.00109	J	0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Benzo(a)pyrene	U		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Benzo(b)fluoranthene	U		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Benzo(g,h,i)perylene	U		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Benzo(k)fluoranthene	U		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Chrysene	0.000728	J	0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Dibenz(a,h)anthracene	U		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Fluoranthene	U		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Fluorene	0.00339	J	0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Naphthalene	0.0129	J	0.00240	0.0240	1	02/08/2018 18:13	WG1071161
Phenanthrene	0.00928		0.000720	0.00720	1	02/08/2018 18:13	WG1071161
Pyrene	0.00229	J	0.000720	0.00720	1	02/08/2018 18:13	WG1071161
1-Methylnaphthalene	0.0451		0.00240	0.0240	1	02/08/2018 18:13	WG1071161
2-Methylnaphthalene	0.0520		0.00240	0.0240	1	02/08/2018 18:13	WG1071161
2-Chloronaphthalene	U		0.00240	0.0240	1	02/08/2018 18:13	WG1071161
(S) Nitrobenzene-d5	*117*			*14.0-149*		*02/08/2018 18:13*	WG1071161
(S) 2-Fluorobiphenyl	*85.7*			*34.0-125*		*02/08/2018 18:13*	WG1071161
(S) p-Terphenyl-d14	*81.4*			*23.0-120*		*02/08/2018 18:13*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.8		1	02/12/2018 10:15	WG1072601

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.56	4.71	1	02/09/2018 13:24	WG1071154
Residual Range Organics (RRO)	U		3.89	11.8	1	02/09/2018 13:24	WG1071154
(S) o-Terphenyl	*97.9*			*18.0-148*		*02/09/2018 13:24*	WG1071154

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.000724	J	0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Acenaphthene	0.00140	J	0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Acenaphthylene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Benzo(a)anthracene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Benzo(a)pyrene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Benzo(b)fluoranthene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Benzo(g,h,i)perylene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Benzo(k)fluoranthene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Chrysene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Dibenz(a,h)anthracene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Fluoranthene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Fluorene	0.00128	J	0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Naphthalene	U		0.00236	0.0236	1	02/08/2018 19:15	WG1071161
Phenanthrene	0.00314	J	0.000707	0.00707	1	02/08/2018 19:15	WG1071161
Pyrene	U		0.000707	0.00707	1	02/08/2018 19:15	WG1071161
1-Methylnaphthalene	0.00855	J	0.00236	0.0236	1	02/08/2018 19:15	WG1071161
2-Methylnaphthalene	0.00959	J	0.00236	0.0236	1	02/08/2018 19:15	WG1071161
2-Chloronaphthalene	U		0.00236	0.0236	1	02/08/2018 19:15	WG1071161
(S) Nitrobenzene-d5	*115*			*14.0-149*		*02/08/2018 19:15*	WG1071161
(S) 2-Fluorobiphenyl	*90.5*			*34.0-125*		*02/08/2018 19:15*	WG1071161
(S) p-Terphenyl-d14	*90.1*			*23.0-120*		*02/08/2018 19:15*	WG1071161

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0420	0.150	3	02/08/2018 14:02	WG1071139
Acenaphthene	U		0.0300	0.150	3	02/08/2018 14:02	WG1071139
Acenaphthylene	U		0.0360	0.150	3	02/08/2018 14:02	WG1071139
Benzo(a)anthracene	U		0.0123	0.150	3	02/08/2018 14:02	WG1071139
Benzo(a)pyrene	U		0.0348	0.150	3	02/08/2018 14:02	WG1071139
Benzo(b)fluoranthene	U		0.00636	0.150	3	02/08/2018 14:02	WG1071139
Benzo(g,h,i)perylene	U		0.00681	0.150	3	02/08/2018 14:02	WG1071139
Benzo(k)fluoranthene	U		0.0408	0.150	3	02/08/2018 14:02	WG1071139
Chrysene	U		0.0324	0.150	3	02/08/2018 14:02	WG1071139
Dibenz(a,h)anthracene	U		0.0119	0.150	3	02/08/2018 14:02	WG1071139
Fluoranthene	U		0.0471	0.150	3	02/08/2018 14:02	WG1071139
Fluorene	U		0.0255	0.150	3	02/08/2018 14:02	WG1071139
Indeno(1,2,3-cd)pyrene	U		0.0444	0.150	3	02/08/2018 14:02	WG1071139
Naphthalene	0.0872	J	0.0594	0.750	3	02/08/2018 14:02	WG1071139
Phenanthrene	U		0.0246	0.150	3	02/08/2018 14:02	WG1071139
Pyrene	U		0.0351	0.150	3	02/08/2018 14:02	WG1071139
1-Methylnaphthalene	0.0370	J	0.0246	0.750	3	02/08/2018 14:02	WG1071139
2-Methylnaphthalene	0.0355	J	0.0271	0.750	3	02/08/2018 14:02	WG1071139
2-Chloronaphthalene	U		0.0194	0.750	3	02/08/2018 14:02	WG1071139
(S) Nitrobenzene-d5	*118*			*31.0-160*		*02/08/2018 14:02*	WG1071139
(S) 2-Fluorobiphenyl	*109*			*48.0-148*		*02/08/2018 14:02*	WG1071139
(S) p-Terphenyl-d14	*92.7*			*37.0-146*		*02/08/2018 14:02*	WG1071139

Sample Narrative:

L968449-25 WG1071139: Cannot be analyzed at a lower dilution due to extract emulsion.

BP-121-9

Collected date/time: 02/01/18 11:10

SAMPLE RESULTS - 26

L968449

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.8		1	02/12/2018 10:29	WG1072603

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Acenaphthene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Acenaphthylene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Benzo(a)anthracene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Benzo(a)pyrene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Benzo(b)fluoranthene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Benzo(g,h,i)perylene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Benzo(k)fluoranthene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Chrysene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Dibenz(a,h)anthracene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Fluoranthene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Fluorene	0.000754	J	0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Naphthalene	U		0.00239	0.0239	1	02/08/2018 19:36	WG1071161
Phenanthrene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
Pyrene	U		0.000716	0.00716	1	02/08/2018 19:36	WG1071161
1-Methylnaphthalene	U		0.00239	0.0239	1	02/08/2018 19:36	WG1071161
2-Methylnaphthalene	U		0.00239	0.0239	1	02/08/2018 19:36	WG1071161
2-Chloronaphthalene	U		0.00239	0.0239	1	02/08/2018 19:36	WG1071161
(S) Nitrobenzene-d5	*123*			*14.0-149*		*02/08/2018 19:36*	WG1071161
(S) 2-Fluorobiphenyl	*92.8*			*34.0-125*		*02/08/2018 19:36*	WG1071161
(S) p-Terphenyl-d14	*86.6*			*23.0-120*		*02/08/2018 19:36*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.9		1	02/12/2018 10:29	WG1072603

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.59	4.83	1	02/09/2018 13:38	WG1071154
Residual Range Organics (RRO)	U		3.98	12.1	1	02/09/2018 13:38	WG1071154
(S) o-Terphenyl	*82.9*			*18.0-148*		*02/09/2018 13:38*	WG1071154

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00170	J	0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Acenaphthene	0.0327		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Acenaphthylene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Benzo(a)anthracene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Benzo(a)pyrene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Benzo(b)fluoranthene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Benzo(g,h,i)perylene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Benzo(k)fluoranthene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Chrysene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Dibenz(a,h)anthracene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Fluoranthene	0.00377	J	0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Fluorene	0.0109		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Naphthalene	0.0200	J	0.00241	0.0241	1	02/08/2018 19:56	WG1071161
Phenanthrene	U		0.000724	0.00724	1	02/08/2018 19:56	WG1071161
Pyrene	0.00255	J	0.000724	0.00724	1	02/08/2018 19:56	WG1071161
1-Methylnaphthalene	0.00320	J	0.00241	0.0241	1	02/08/2018 19:56	WG1071161
2-Methylnaphthalene	0.00403	J	0.00241	0.0241	1	02/08/2018 19:56	WG1071161
2-Chloronaphthalene	U		0.00241	0.0241	1	02/08/2018 19:56	WG1071161
(S) Nitrobenzene-d5	*122*			*14.0-149*		*02/08/2018 19:56*	WG1071161
(S) 2-Fluorobiphenyl	*86.5*			*34.0-125*		*02/08/2018 19:56*	WG1071161
(S) p-Terphenyl-d14	*74.5*			*23.0-120*		*02/08/2018 19:56*	WG1071161

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.1		1	02/12/2018 10:29	WG1072603

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0147	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Acenaphthene	U		0.0139	0.139	20	02/08/2018 20:38	WG1071161
Acenaphthylene	0.0205	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Benzo(a)anthracene	0.0257	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Benzo(a)pyrene	0.0163	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Benzo(b)fluoranthene	0.0432	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Benzo(g,h,i)perylene	0.449		0.0139	0.139	20	02/08/2018 20:38	WG1071161
Benzo(k)fluoranthene	0.0201	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Chrysene	U		0.0139	0.139	20	02/08/2018 20:38	WG1071161
Dibenz(a,h)anthracene	U		0.0139	0.139	20	02/08/2018 20:38	WG1071161
Fluoranthene	0.0152	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Fluorene	U		0.0139	0.139	20	02/08/2018 20:38	WG1071161
Indeno(1,2,3-cd)pyrene	0.0224	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Naphthalene	U		0.0465	0.465	20	02/08/2018 20:38	WG1071161
Phenanthrene	0.0150	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
Pyrene	0.0199	J	0.0139	0.139	20	02/08/2018 20:38	WG1071161
1-Methylnaphthalene	U		0.0465	0.465	20	02/08/2018 20:38	WG1071161
2-Methylnaphthalene	U		0.0465	0.465	20	02/08/2018 20:38	WG1071161
2-Chloronaphthalene	U		0.0465	0.465	20	02/08/2018 20:38	WG1071161
(S) Nitrobenzene-d5	*95.0*	J7		*14.0-149*		*02/08/2018 20:38*	WG1071161
(S) 2-Fluorobiphenyl	*82.0*	J7		*34.0-125*		*02/08/2018 20:38*	WG1071161
(S) p-Terphenyl-d14	*79.2*	J7		*23.0-120*		*02/08/2018 20:38*	WG1071161

Sample Narrative:

L968449-28 WG1071161: Cannot be analyzed at a lower dilution due to non-target matrix interference.

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.0		1	02/12/2018 10:29	WG1072603

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Acenaphthene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Acenaphthylene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Benzo(a)anthracene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Benzo(a)pyrene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Benzo(b)fluoranthene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Benzo(g,h,i)perylene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Benzo(k)fluoranthene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Chrysene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Dibenz(a,h)anthracene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Fluoranthene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Fluorene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Indeno(1,2,3-cd)pyrene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Naphthalene	U		0.00244	0.0244	1	02/08/2018 20:17	WG1071161
Phenanthrene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
Pyrene	U		0.000732	0.00732	1	02/08/2018 20:17	WG1071161
1-Methylnaphthalene	U		0.00244	0.0244	1	02/08/2018 20:17	WG1071161
2-Methylnaphthalene	U		0.00244	0.0244	1	02/08/2018 20:17	WG1071161
2-Chloronaphthalene	U		0.00244	0.0244	1	02/08/2018 20:17	WG1071161
(S) Nitrobenzene-d5	*124*			*14.0-149*		*02/08/2018 20:17*	WG1071161
(S) 2-Fluorobiphenyl	*91.7*			*34.0-125*		*02/08/2018 20:17*	WG1071161
(S) p-Terphenyl-d14	*82.7*			*23.0-120*		*02/08/2018 20:17*	WG1071161

Method Blank (MB)

(MB) R3284523-1 02/06/18 14:43

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L967090-02 Original Sample (OS) • Duplicate (DUP)

(OS) L967090-02 02/06/18 14:43 • (DUP) R3284523-3 02/06/18 14:43

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	68.1	68.3	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3284523-2 02/06/18 14:43

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3285819-1 02/12/18 11:15

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.002			

L968449-06 Original Sample (OS) • Duplicate (DUP)

(OS) L968449-06 02/12/18 11:15 • (DUP) R3285819-3 02/12/18 11:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	56.6	60.3	1	6	J3	5

Laboratory Control Sample (LCS)

(LCS) R3285819-2 02/12/18 11:15

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3285867-1 02/12/18 11:03

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.001			

L968449-15 Original Sample (OS) • Duplicate (DUP)

(OS) L968449-15 02/12/18 11:03 • (DUP) R3285867-3 02/12/18 11:03

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	83.7	84.4	1	1		5

Laboratory Control Sample (LCS)

(LCS) R3285867-2 02/12/18 11:03

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3285816-1 02/12/18 10:15

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.003			

L968449-20 Original Sample (OS) • Duplicate (DUP)

(OS) L968449-20 02/12/18 10:15 • (DUP) R3285816-3 02/12/18 10:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	83.4	83.4	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3285816-2 02/12/18 10:15

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85-115	

QUALITY CONTROL SUMMARY

L968449-26,27,28,29

Method Blank (MB)

(MB) R3285818-1 02/12/18 10:29

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L968449-26 Original Sample (OS) • Duplicate (DUP)

(OS) L968449-26 02/12/18 10:29 • (DUP) R3285818-3 02/12/18 10:29

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.8	84.9	1	1		5

Laboratory Control Sample (LCS)

(LCS) R3285818-2 02/12/18 10:29

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3285187-1 02/09/18 07:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.0490	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285187-2 02/09/18 07:38 • (LCSD) R3285187-5 02/09/18 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	2.44	3.01	81.2	100	80-120		J3	21.2	20

L968449-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968449-16 02/09/18 07:42 • (MS) R3285187-3 02/09/18 07:45 • (MSD) R3285187-4 02/09/18 07:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	U	2.46	2.28	82.1	76.1	1	75-125			7.63	20

Method Blank (MB)

(MB) R3285854-1 02/13/18 08:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	0.00343	J	0.0028	0.0200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285854-2 02/13/18 08:25 • (LCSD) R3285854-3 02/13/18 08:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.264	0.252	87.9	84.1	80-120			4.46	20

L968449-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968449-22 02/13/18 08:30 • (MS) R3285854-4 02/13/18 08:32 • (MSD) R3285854-5 02/13/18 08:35

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.363	0.00807	0.325	0.323	87.2	86.7	1	75-125			0.531	20

Method Blank (MB)

(MB) R3285110-1 02/08/18 21:36

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Beryllium	U		0.700	2.00
Cadmium	U		0.700	2.00
Chromium	U		1.40	10.0
Copper	U		5.30	10.0
Nickel	U		4.90	10.0
Selenium	U		7.40	10.0
Silver	U		2.80	5.00
Zinc	U		5.90	50.0

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285110-2 02/08/18 21:39 • (LCSD) R3285110-3 02/08/18 21:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Beryllium	1000	994	994	99.4	99.4	80-120			0.0055	20
Cadmium	1000	1030	1020	103	102	80-120			0.367	20
Chromium	1000	983	972	98.3	97.2	80-120			1.11	20
Copper	1000	980	970	98	97	80-120			1.05	20
Nickel	1000	979	981	97.9	98.1	80-120			0.253	20
Selenium	1000	1000	1010	100	101	80-120			0.842	20
Silver	200	183	182	91.6	91	80-120			0.653	20
Zinc	1000	1050	1040	105	104	80-120			0.526	20

L968592-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968592-01 02/08/18 21:46 • (MS) R3285110-5 02/08/18 21:52 • (MSD) R3285110-6 02/08/18 21:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1000	ND	1020	1010	102	101	1	75-125			0.632	20
Cadmium	1000	ND	1060	1050	106	105	1	75-125			0.269	20
Chromium	1000	ND	1010	988	101	98.8	1	75-125			2.01	20
Copper	1000	17.2	1030	1010	101	99	1	75-125			1.79	20
Nickel	1000	ND	998	989	99.8	98.9	1	75-125			0.812	20
Selenium	1000	ND	1050	1030	105	103	1	75-125			1.04	20
Silver	200	ND	187	183	93.4	91.6	1	75-125			1.97	20
Zinc	1000	ND	1080	1080	105	106	1	75-125			0.158	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3286110-1 02/13/18 19:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.75	2.00
Arsenic	U		0.65	2.00
Beryllium	U		0.07	0.200
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Copper	U		0.53	2.00
Lead	U		0.19	0.500
Nickel	U		0.49	2.00
Selenium	U		0.74	2.00
Silver	U		0.28	1.00
Thallium	U		0.65	2.00
Zinc	U		0.59	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3286110-2 02/13/18 19:25 • (LCSD) R3286110-3 02/13/18 19:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Antimony	100	98.8	101	98.8	101	80-120			2.33	20
Arsenic	100	95.2	96.8	95.2	96.8	80-120			1.73	20
Beryllium	100	99.8	102	99.8	102	80-120			2.19	20
Cadmium	100	97.8	99.6	97.8	99.6	80-120			1.75	20
Chromium	100	100	103	100	103	80-120			2.47	20
Copper	100	99.5	101	99.5	101	80-120			1.56	20
Lead	100	100	102	100	102	80-120			1.93	20
Nickel	100	100	102	100	102	80-120			1.68	20
Selenium	100	95.8	97.3	95.8	97.3	80-120			1.57	20
Silver	20.0	19.5	19.9	97.5	99.4	80-120			1.98	20
Thallium	100	97.8	99.8	97.8	99.8	80-120			2.05	20
Zinc	100	98.7	101	98.7	101	80-120			1.88	20

L968899-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968899-01 02/13/18 19:31 • (MS) R3286110-6 02/13/18 19:41 • (MSD) R3286110-7 02/13/18 19:44

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	100	0.828	59.3	63.7	58.5	62.9	1	75-125	J6	J6	7.21	20
Arsenic	100	0.698	94.6	101	93.9	99.9	1	75-125			6.09	20
Beryllium	100	0.325	94.1	99.3	93.8	99	1	75-125			5.41	20

L968899-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968899-01 02/13/18 19:31 • (MS) R3286110-6 02/13/18 19:41 • (MSD) R3286110-7 02/13/18 19:44

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cadmium	100	0.0972	97.8	103	97.7	103	1	75-125			5.28	20
Chromium	100	45.3	145	144	99.8	98.3	1	75-125			1.03	20
Copper	100	20.8	120	120	98.7	99.4	1	75-125			0.541	20
Lead	100	2.96	103	107	99.8	104	1	75-125			4.07	20
Nickel	100	49.5	156	149	107	99.2	1	75-125			4.82	20
Selenium	100	U	95.1	102	95.1	102	1	75-125			6.96	20
Silver	20.0	U	20.3	21.3	101	106	1	75-125			4.63	20
Thallium	100	U	90.4	94.8	90.4	94.8	1	75-125			4.75	20
Zinc	100	35.4	126	126	90.6	90.5	1	75-125			0.0581	20

Method Blank (MB)

(MB) R3285060-1 02/08/18 15:54

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	U		0.754	2.00
Arsenic	U		0.250	2.00
Lead	U		0.240	2.00
Thallium	U		0.190	2.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285060-2 02/08/18 15:57 • (LCSD) R3285060-3 02/08/18 16:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	46.4	44.2	92.8	88.4	80-120			4.92	20
Arsenic	50.0	47.6	47.4	95.3	94.8	80-120			0.482	20
Lead	50.0	48.7	48.5	97.4	97	80-120			0.41	20
Thallium	50.0	48.7	47.9	97.4	95.7	80-120			1.7	20

L968393-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968393-14 02/08/18 16:05 • (MS) R3285060-5 02/08/18 16:13 • (MSD) R3285060-6 02/08/18 16:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	ND	45.4	47.3	90.8	94.6	1	75-125			4.13	20
Arsenic	50.0	ND	48.2	47.9	94.9	94.3	1	75-125			0.598	20
Lead	50.0	ND	48.4	48.8	96.9	97.5	1	75-125			0.707	20
Thallium	50.0	ND	48.3	48.3	96.6	96.7	1	75-125			0.025	20

Method Blank (MB)

(MB) R3285313-1 02/09/18 12:06

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Antimony	U		0.754	2.00
Arsenic	U		0.250	2.00
Lead	0.699	J	0.240	2.00
Thallium	0.290	J	0.190	2.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285313-2 02/09/18 12:10 • (LCSD) R3285313-3 02/09/18 12:14

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Antimony	50.0	53.9	53.1	108	106	80-120			1.57	20
Arsenic	50.0	53.0	53.0	106	106	80-120			0.0793	20
Lead	50.0	54.2	52.1	108	104	80-120			3.87	20
Thallium	50.0	52.6	52.4	105	105	80-120			0.375	20

L968449-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968449-16 02/09/18 12:17 • (MS) R3285313-5 02/09/18 12:25 • (MSD) R3285313-6 02/09/18 12:29

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Antimony	50.0	0.828	52.7	53.4	104	105	1	75-125			1.41	20
Arsenic	50.0	3.01	54.7	55.9	103	106	1	75-125			2.04	20
Lead	50.0	1.84	52.5	52.8	101	102	1	75-125			0.602	20
Thallium	50.0	0.280	50.9	52.3	101	104	1	75-125			2.69	20

Method Blank (MB)

(MB) R3285308-3 02/08/18 21:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100

Method Blank (MB)

(MB) R3285308-3 02/08/18 21:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*99.6*			*74.0-131*
(S) 4-Bromofluorobenzene	*102*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285308-1 02/08/18 20:12 • (LCSD) R3285308-2 02/08/18 20:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.114	0.107	91.5	85.7	11.0-160			6.54	23
Acrylonitrile	0.125	0.142	0.132	113	106	61.0-143			6.78	20
Benzene	0.0250	0.0256	0.0251	102	100	71.0-124			1.85	20
Bromobenzene	0.0250	0.0245	0.0249	98.1	99.6	78.0-120			1.53	20
Bromodichloromethane	0.0250	0.0251	0.0254	100	102	75.0-120			1.33	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285308-1 02/08/18 20:12 • (LCSD) R3285308-2 02/08/18 20:32

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Bromoform	0.0250	0.0268	0.0271	107	109	65.0-133			1.40	20
Bromomethane	0.0250	0.0243	0.0238	97.1	95.3	26.0-160			1.89	20
n-Butylbenzene	0.0250	0.0261	0.0255	104	102	73.0-126			2.37	20
sec-Butylbenzene	0.0250	0.0272	0.0265	109	106	75.0-121			2.67	20
tert-Butylbenzene	0.0250	0.0263	0.0262	105	105	74.0-122			0.355	20
Carbon tetrachloride	0.0250	0.0265	0.0231	106	92.4	66.0-123			13.5	20
Chlorobenzene	0.0250	0.0258	0.0265	103	106	79.0-121			2.59	20
Chlorodibromomethane	0.0250	0.0262	0.0268	105	107	74.0-128			2.53	20
Chloroethane	0.0250	0.0242	0.0234	96.7	93.6	51.0-147			3.20	20
Chloroform	0.0250	0.0256	0.0253	102	101	73.0-123			1.12	20
Chloromethane	0.0250	0.0262	0.0254	105	102	51.0-138			2.91	20
2-Chlorotoluene	0.0250	0.0248	0.0250	99.3	100	72.0-124			0.911	20
4-Chlorotoluene	0.0250	0.0250	0.0252	100	101	78.0-120			0.781	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0283	0.0268	113	107	65.0-126			5.40	20
1,2-Dibromoethane	0.0250	0.0279	0.0280	112	112	78.0-122			0.520	20
Dibromomethane	0.0250	0.0270	0.0267	108	107	79.0-120			0.864	20
1,2-Dichlorobenzene	0.0250	0.0256	0.0259	102	104	80.0-120			1.04	20
1,3-Dichlorobenzene	0.0250	0.0244	0.0249	97.8	99.5	72.0-123			1.80	20
1,4-Dichlorobenzene	0.0250	0.0236	0.0241	94.4	96.4	77.0-120			2.13	20
Dichlorodifluoromethane	0.0250	0.0272	0.0250	109	99.9	49.0-155			8.42	20
1,1-Dichloroethane	0.0250	0.0258	0.0255	103	102	70.0-128			1.13	20
1,2-Dichloroethane	0.0250	0.0246	0.0244	98.3	97.8	69.0-128			0.562	20
1,1-Dichloroethene	0.0250	0.0240	0.0228	95.8	91.1	63.0-131			5.02	20
cis-1,2-Dichloroethene	0.0250	0.0266	0.0265	106	106	74.0-123			0.235	20
trans-1,2-Dichloroethene	0.0250	0.0253	0.0248	101	99.1	72.0-122			1.98	20
1,2-Dichloropropane	0.0250	0.0261	0.0261	104	104	75.0-126			0.0162	20
1,1-Dichloropropene	0.0250	0.0261	0.0251	104	100	72.0-130			3.81	20
1,3-Dichloropropane	0.0250	0.0271	0.0275	108	110	80.0-121			1.48	20
cis-1,3-Dichloropropene	0.0250	0.0265	0.0274	106	110	80.0-125			3.21	20
trans-1,3-Dichloropropene	0.0250	0.0274	0.0281	110	113	75.0-129			2.51	20
2,2-Dichloropropane	0.0250	0.0240	0.0233	96.0	93.1	60.0-129			3.10	20
Di-isopropyl ether	0.0250	0.0269	0.0270	108	108	62.0-133			0.404	20
Ethylbenzene	0.0250	0.0256	0.0260	103	104	77.0-120			1.23	20
Hexachloro-1,3-butadiene	0.0250	0.0278	0.0272	111	109	68.0-128			2.24	20
Isopropylbenzene	0.0250	0.0270	0.0267	108	107	75.0-120			1.12	20
p-Isopropyltoluene	0.0250	0.0269	0.0266	108	106	74.0-125			0.980	20
2-Butanone (MEK)	0.125	0.134	0.124	107	99.6	37.0-159			7.49	20
Methylene Chloride	0.0250	0.0238	0.0235	95.1	94.1	67.0-123			1.09	20
4-Methyl-2-pentanone (MIBK)	0.125	0.149	0.144	120	115	60.0-144			3.57	20
Methyl tert-butyl ether	0.0250	0.0266	0.0260	106	104	66.0-125			2.21	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285308-1 02/08/18 20:12 • (LCSD) R3285308-2 02/08/18 20:32

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Naphthalene	0.0250	0.0297	0.0294	119	118	64.0-125			0.918	20
n-Propylbenzene	0.0250	0.0252	0.0250	101	100	78.0-120			0.644	20
Styrene	0.0250	0.0257	0.0261	103	104	78.0-124			1.52	20
1,1,1,2-Tetrachloroethane	0.0250	0.0257	0.0266	103	107	74.0-124			3.61	20
1,1,2,2-Tetrachloroethane	0.0250	0.0272	0.0268	109	107	73.0-120			1.41	20
Tetrachloroethene	0.0250	0.0253	0.0252	101	101	70.0-127			0.360	20
Toluene	0.0250	0.0244	0.0247	97.8	98.8	77.0-120			1.04	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0239	0.0228	95.5	91.1	64.0-135			4.67	20
1,2,3-Trichlorobenzene	0.0250	0.0271	0.0278	108	111	68.0-126			2.42	20
1,2,4-Trichlorobenzene	0.0250	0.0268	0.0270	107	108	70.0-127			0.889	20
1,1,1-Trichloroethane	0.0250	0.0252	0.0243	101	97.1	69.0-125			3.56	20
1,1,2-Trichloroethane	0.0250	0.0268	0.0276	107	110	78.0-120			2.86	20
Trichloroethene	0.0250	0.0267	0.0257	107	103	79.0-120			3.63	20
Trichlorofluoromethane	0.0250	0.0229	0.0215	91.5	86.2	59.0-136			6.04	20
1,2,3-Trichloropropane	0.0250	0.0272	0.0263	109	105	73.0-124			3.48	20
1,2,3-Trimethylbenzene	0.0250	0.0260	0.0262	104	105	76.0-120			0.715	20
1,2,4-Trimethylbenzene	0.0250	0.0268	0.0270	107	108	75.0-120			0.592	20
1,3,5-Trimethylbenzene	0.0250	0.0262	0.0262	105	105	75.0-120			0.115	20
Vinyl chloride	0.0250	0.0252	0.0239	101	95.6	63.0-134			5.43	20
Xylenes, Total	0.0750	0.0778	0.0791	104	105	77.0-120			1.66	20
(S) Toluene-d8				*102*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*99.3*	*98.4*	*74.0-131*				
(S) 4-Bromofluorobenzene				*99.8*	*100*	*64.0-132*				

L968674-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968674-03 02/09/18 03:24 • (MS) R3285308-4 02/09/18 06:04 • (MSD) R3285308-5 02/09/18 06:24

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Acetone	0.144	U	5.28	6.14	71.1	82.7	51.5	10.0-160			15.1	36
Acrylonitrile	0.144	U	7.55	7.70	102	104	51.5	14.0-160			2.04	33
Benzene	0.0288	U	1.35	1.38	91.0	92.6	51.5	13.0-146			1.83	27
Bromobenzene	0.0288	U	1.36	1.39	91.8	93.8	51.5	10.0-149			2.21	33
Bromodichloromethane	0.0288	U	1.37	1.36	92.0	91.7	51.5	15.0-142			0.377	28
Bromoform	0.0288	U	1.40	1.40	94.5	94.0	51.5	10.0-147			0.592	31
Bromomethane	0.0288	U	0.929	0.958	62.6	64.5	51.5	10.0-160			3.05	32
n-Butylbenzene	0.0288	U	1.34	1.35	90.1	91.2	51.5	10.0-154			1.15	37
sec-Butylbenzene	0.0288	U	1.41	1.43	95.0	96.4	51.5	10.0-151			1.43	36
tert-Butylbenzene	0.0288	U	1.41	1.44	95.2	97.1	51.5	10.0-152			1.99	35

L968674-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968674-03 02/09/18 03:24 • (MS) R3285308-4 02/09/18 06:04 • (MSD) R3285308-5 02/09/18 06:24

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Carbon tetrachloride	0.0288	U	1.28	1.30	86.2	87.6	51.5	13.0-140			1.63	30
Chlorobenzene	0.0288	U	1.40	1.45	94.4	97.4	51.5	10.0-149			3.12	31
Chlorodibromomethane	0.0288	U	1.41	1.47	95.1	98.6	51.5	12.0-147			3.65	29
Chloroethane	0.0288	U	0.420	0.408	28.3	27.4	51.5	10.0-159			2.90	33
Chloroform	0.0288	U	1.38	1.40	92.7	94.0	51.5	18.0-148			1.37	28
Chloromethane	0.0288	0.0531	1.24	1.29	79.7	83.4	51.5	10.0-146			4.29	29
2-Chlorotoluene	0.0288	U	1.35	1.38	91.0	93.2	51.5	10.0-151			2.37	35
4-Chlorotoluene	0.0288	U	1.37	1.39	92.5	93.6	51.5	10.0-150			1.15	35
1,2-Dibromo-3-Chloropropane	0.0288	U	1.41	1.39	94.8	93.7	51.5	10.0-149			1.11	34
1,2-Dibromoethane	0.0288	U	1.52	1.59	102	107	51.5	14.0-145			4.13	28
Dibromomethane	0.0288	U	1.48	1.49	99.6	100	51.5	18.0-144			0.595	27
1,2-Dichlorobenzene	0.0288	U	1.43	1.45	96.4	97.4	51.5	10.0-153			1.04	34
1,3-Dichlorobenzene	0.0288	U	1.32	1.35	88.9	90.7	51.5	10.0-150			2.04	35
1,4-Dichlorobenzene	0.0288	U	1.28	1.31	86.4	88.3	51.5	10.0-148			2.15	34
Dichlorodifluoromethane	0.0288	U	1.30	1.30	87.4	87.5	51.5	10.0-160			0.0740	30
1,1-Dichloroethane	0.0288	U	1.36	1.38	91.6	93.0	51.5	19.0-148			1.53	28
1,2-Dichloroethane	0.0288	U	1.39	1.39	93.5	93.4	51.5	17.0-147			0.101	27
1,1-Dichloroethene	0.0288	U	1.07	1.08	72.0	72.7	51.5	10.0-150			1.05	31
cis-1,2-Dichloroethene	0.0288	U	1.44	1.45	97.2	97.9	51.5	16.0-145			0.669	28
trans-1,2-Dichloroethene	0.0288	U	1.29	1.31	86.6	88.4	51.5	11.0-142			1.97	29
1,2-Dichloropropane	0.0288	U	1.41	1.43	95.3	96.4	51.5	17.0-148			1.22	28
1,1-Dichloropropene	0.0288	U	1.36	1.36	91.7	91.8	51.5	10.0-150			0.0841	30
1,3-Dichloropropane	0.0288	U	1.53	1.57	103	106	51.5	16.0-148			2.79	27
cis-1,3-Dichloropropene	0.0288	U	1.48	1.52	99.3	103	51.5	13.0-150			3.27	28
trans-1,3-Dichloropropene	0.0288	U	1.47	1.53	99.0	103	51.5	10.0-152			3.94	29
2,2-Dichloropropane	0.0288	U	1.11	1.10	74.6	74.0	51.5	16.0-143			0.864	30
Di-isopropyl ether	0.0288	U	1.51	1.53	102	103	51.5	16.0-149			1.47	28
Ethylbenzene	0.0288	U	1.35	1.42	90.9	95.5	51.5	10.0-147			4.99	31
Hexachloro-1,3-butadiene	0.0288	U	1.53	1.54	103	103	51.5	10.0-154			0.420	40
Isopropylbenzene	0.0288	U	1.40	1.43	94.5	96.1	51.5	10.0-147			1.67	33
p-Isopropyltoluene	0.0288	U	1.41	1.43	95.1	96.0	51.5	10.0-156			0.993	37
2-Butanone (MEK)	0.144	U	6.55	7.08	88.1	95.4	51.5	10.0-160			7.87	33
Methylene Chloride	0.0288	U	1.26	1.28	85.1	85.9	51.5	16.0-139			0.937	29
4-Methyl-2-pentanone (MIBK)	0.144	U	7.78	8.01	105	108	51.5	12.0-160			2.92	32
Methyl tert-butyl ether	0.0288	U	1.52	1.53	102	103	51.5	21.0-145			1.08	29
Naphthalene	0.0288	U	1.49	1.61	101	109	51.5	10.0-153			7.70	36
n-Propylbenzene	0.0288	U	1.31	1.32	88.2	88.9	51.5	10.0-151			0.837	34
Styrene	0.0288	U	1.44	1.46	97.2	98.2	51.5	10.0-155			1.02	34
1,1,1,2-Tetrachloroethane	0.0288	U	1.41	1.47	94.9	98.8	51.5	10.0-147			4.03	30

L968674-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968674-03 02/09/18 03:24 • (MS) R3285308-4 02/09/18 06:04 • (MSD) R3285308-5 02/09/18 06:24

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
1,1,2,2-Tetrachloroethane	0.0288	U	1.39	1.37	93.4	92.5	51.5	10.0-155			0.975	31
Tetrachloroethene	0.0288	U	1.25	1.29	84.5	86.6	51.5	10.0-144			2.53	32
Toluene	0.0288	U	1.30	1.36	87.6	91.3	51.5	10.0-144			4.12	28
1,1,2-Trichlorotrifluoroethane	0.0288	U	1.12	1.21	75.2	81.5	51.5	10.0-153			8.08	33
1,2,3-Trichlorobenzene	0.0288	U	1.47	1.56	98.9	105	51.5	10.0-153			5.78	40
1,2,4-Trichlorobenzene	0.0288	U	1.43	1.51	96.2	101	51.5	10.0-156			5.29	40
1,1,1-Trichloroethane	0.0288	U	1.26	1.29	85.0	86.8	51.5	18.0-145			2.03	29
1,1,2-Trichloroethane	0.0288	U	1.50	1.53	101	103	51.5	12.0-151			2.26	28
Trichloroethene	0.0288	U	1.37	1.42	92.2	95.6	51.5	11.0-148			3.63	29
Trichlorofluoromethane	0.0288	U	0.964	0.955	64.9	64.3	51.5	10.0-157			0.984	34
1,2,3-Trichloropropane	0.0288	U	1.43	1.44	96.4	97.1	51.5	10.0-154			0.721	32
1,2,3-Trimethylbenzene	0.0288	U	1.54	1.57	104	106	51.5	10.0-150			1.92	33
1,2,4-Trimethylbenzene	0.0288	U	1.45	1.49	97.9	100	51.5	10.0-151			2.47	34
1,3,5-Trimethylbenzene	0.0288	U	1.39	1.42	93.4	95.5	51.5	10.0-150			2.15	33
Vinyl chloride	0.0288	U	1.15	1.18	77.4	79.1	51.5	10.0-150			2.19	29
Xylenes, Total	0.0865	U	4.12	4.28	92.4	96.1	51.5	10.0-150			3.85	31
(S) Toluene-d8					*104*	*106*		*80.0-120*				
(S) Dibromofluoromethane					*98.7*	*97.8*		*74.0-131*				
(S) 4-Bromofluorobenzene					*98.8*	*98.4*		*64.0-132*				

Method Blank (MB)

(MB) R3285497-3 02/08/18 21:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

Method Blank (MB)

(MB) R3285497-3 02/08/18 21:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*82.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.7*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3285497-1 02/08/18 20:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	107	85.4	10.0-160	
Acrolein	125	480	384	10.0-160	J4
Acrylonitrile	125	91.3	73.0	60.0-142	
Benzene	25.0	20.7	82.7	69.0-123	

Laboratory Control Sample (LCS)

(LCS) R3285497-1 02/08/18 20:36

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Bromobenzene	25.0	20.2	80.9	79.0-120	
Bromodichloromethane	25.0	20.7	82.8	76.0-120	
Bromoform	25.0	21.3	85.3	67.0-132	
Bromomethane	25.0	9.63	38.5	18.0-160	
n-Butylbenzene	25.0	22.5	89.9	72.0-126	
sec-Butylbenzene	25.0	22.7	90.7	74.0-121	
tert-Butylbenzene	25.0	23.0	91.9	75.0-122	
Carbon tetrachloride	25.0	21.5	85.9	63.0-122	
Chlorobenzene	25.0	24.7	99.0	79.0-121	
Chlorodibromomethane	25.0	23.4	93.5	75.0-125	
Chloroethane	25.0	19.8	79.3	47.0-152	
Chloroform	25.0	20.2	80.9	72.0-121	
Chloromethane	25.0	13.8	55.1	48.0-139	
2-Chlorotoluene	25.0	21.8	87.1	74.0-122	
4-Chlorotoluene	25.0	21.5	86.2	79.0-120	
1,2-Dibromo-3-Chloropropane	25.0	19.5	77.8	64.0-127	
1,2-Dibromoethane	25.0	23.9	95.5	77.0-123	
Dibromomethane	25.0	22.3	89.1	78.0-120	
1,2-Dichlorobenzene	25.0	22.3	89.1	80.0-120	
1,3-Dichlorobenzene	25.0	22.3	89.0	72.0-123	
1,4-Dichlorobenzene	25.0	21.3	85.3	77.0-120	
Dichlorodifluoromethane	25.0	22.3	89.3	49.0-155	
1,1-Dichloroethane	25.0	20.5	81.8	70.0-126	
1,2-Dichloroethane	25.0	18.4	73.7	67.0-126	
1,1-Dichloroethene	25.0	21.4	85.7	64.0-129	
cis-1,2-Dichloroethene	25.0	20.0	79.9	73.0-120	
trans-1,2-Dichloroethene	25.0	21.6	86.3	71.0-121	
1,2-Dichloropropane	25.0	21.8	87.3	75.0-125	
1,1-Dichloropropene	25.0	21.1	84.5	71.0-129	
1,3-Dichloropropane	25.0	22.7	90.8	80.0-121	
cis-1,3-Dichloropropene	25.0	23.4	93.4	79.0-123	
trans-1,3-Dichloropropene	25.0	24.6	98.2	74.0-127	
2,2-Dichloropropane	25.0	20.6	82.4	60.0-125	
Di-isopropyl ether	25.0	19.3	77.2	59.0-133	
Ethylbenzene	25.0	25.8	103	77.0-120	
Hexachloro-1,3-butadiene	25.0	24.7	98.7	64.0-131	
Isopropylbenzene	25.0	23.1	92.5	75.0-120	
p-Isopropyltoluene	25.0	22.8	91.2	74.0-126	
2-Butanone (MEK)	125	112	89.5	37.0-158	
Methylene Chloride	25.0	17.9	71.6	66.0-121	

Laboratory Control Sample (LCS)

(LCS) R3285497-1 02/08/18 20:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Methyl-2-pentanone (MIBK)	125	111	88.8	59.0-143	
Methyl tert-butyl ether	25.0	18.8	75.2	64.0-123	
Naphthalene	25.0	20.0	80.2	62.0-128	
n-Propylbenzene	25.0	23.1	92.4	79.0-120	
Styrene	25.0	22.6	90.6	78.0-124	
1,1,1,2-Tetrachloroethane	25.0	24.7	98.7	75.0-122	
1,1,2,2-Tetrachloroethane	25.0	19.9	79.4	71.0-122	
Tetrachloroethene	25.0	27.1	108	70.0-127	
Toluene	25.0	25.0	99.9	77.0-120	
1,1,2-Trichlorotrifluoroethane	25.0	22.7	90.6	61.0-136	
1,2,3-Trichlorobenzene	25.0	22.8	91.2	61.0-133	
1,2,4-Trichlorobenzene	25.0	22.9	91.5	69.0-129	
1,1,1-Trichloroethane	25.0	21.4	85.8	68.0-122	
1,1,2-Trichloroethane	25.0	23.6	94.4	78.0-120	
Trichloroethene	25.0	24.3	97.4	78.0-120	
Trichlorofluoromethane	25.0	22.2	88.8	56.0-137	
1,2,3-Trichloropropane	25.0	20.5	82.2	72.0-124	
1,2,3-Trimethylbenzene	25.0	21.9	87.5	75.0-120	
1,2,4-Trimethylbenzene	25.0	21.9	87.6	75.0-120	
1,3,5-Trimethylbenzene	25.0	22.0	87.9	75.0-120	
Vinyl chloride	25.0	20.1	80.4	64.0-133	
Xylenes, Total	75.0	75.9	101	77.0-120	
(S) Toluene-d8			*108*	*80.0-120*	
(S) Dibromofluoromethane			*82.4*	*76.0-123*	
(S) 4-Bromofluorobenzene			*96.4*	*80.0-120*	

Method Blank (MB)

(MB) R3285195-1 02/09/18 07:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*92.2*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285195-2 02/09/18 08:12 • (LCSD) R3285195-3 02/09/18 08:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	25.0	23.1	22.9	92.2	91.6	50.0-150			0.633	20
Residual Range Organics (RRO)	25.0	25.1	26.7	101	107	50.0-150			5.99	20
(S) o-Terphenyl				*87.2*	*83.6*	*18.0-148*				

L968472-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968472-03 02/09/18 08:39 • (MS) R3285195-4 02/09/18 08:53 • (MSD) R3285195-5 02/09/18 09:07

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	26.8	ND	27.1	29.8	87.6	97.6	1	50.0-150			9.45	20
Residual Range Organics (RRO)	26.8	ND	36.8	39.0	107	115	1	50.0-150			5.90	20
(S) o-Terphenyl					*74.5*	*80.1*		*18.0-148*				

Method Blank (MB)

(MB) R3284911-3 02/08/18 09:41

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Anthracene	U		0.0140	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.0120	0.0500
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Fluoranthene	U		0.0157	0.0500
Fluorene	U		0.00850	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	U		0.0198	0.250
Phenanthrene	U		0.00820	0.0500
Pyrene	U		0.0117	0.0500
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
2-Chloronaphthalene	U		0.00647	0.250
(S) Nitrobenzene-d5	*132*			*31.0-160*
(S) 2-Fluorobiphenyl	*119*			*48.0-148*
(S) p-Terphenyl-d14	*116*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284911-1 02/08/18 08:52 • (LCSD) R3284911-2 02/08/18 09:17

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Anthracene	2.00	2.17	2.33	109	117	64.0-142			7.06	20
Acenaphthene	2.00	2.04	2.16	102	108	66.0-132			5.87	20
Acenaphthylene	2.00	2.06	2.19	103	110	65.0-132			6.33	20
Benzo(a)anthracene	2.00	2.04	2.11	102	105	59.0-134			3.44	20
Benzo(a)pyrene	2.00	2.12	2.23	106	111	61.0-145			4.91	20
Benzo(b)fluoranthene	2.00	1.97	2.04	98.7	102	57.0-136			3.14	20
Benzo(g,h,i)perylene	2.00	2.38	2.53	119	126	54.0-140			6.03	20
Benzo(k)fluoranthene	2.00	2.10	2.25	105	112	57.0-141			6.73	20
Chrysene	2.00	2.09	2.29	105	114	63.0-140			8.90	20
Dibenz(a,h)anthracene	2.00	2.33	2.39	117	120	49.0-141			2.53	20
Fluoranthene	2.00	2.42	2.56	121	128	65.0-143			5.46	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284911-1 02/08/18 08:52 • (LCSD) R3284911-2 02/08/18 09:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	2.00	1.82	1.96	90.9	98.1	64.0-129			7.56	20
Indeno(1,2,3-cd)pyrene	2.00	2.38	2.48	119	124	53.0-141			4.21	20
Naphthalene	2.00	1.92	2.05	96.2	102	68.0-129			6.30	20
Phenanthrene	2.00	1.88	2.01	94.1	101	62.0-132			6.67	20
Pyrene	2.00	1.91	2.02	95.4	101	58.0-156			5.43	20
1-Methylnaphthalene	2.00	2.05	2.17	102	109	68.0-137			5.94	20
2-Methylnaphthalene	2.00	1.96	2.09	98.0	105	68.0-134			6.55	20
2-Chloronaphthalene	2.00	1.98	2.23	99.2	112	65.0-129			11.8	20
(S) Nitrobenzene-d5				*123*	*129*	*31.0-160*				
(S) 2-Fluorobiphenyl				*109*	*115*	*48.0-148*				
(S) p-Terphenyl-d14				*107*	*114*	*37.0-146*				

Method Blank (MB)

(MB) R3285294-3 02/08/18 13:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*114*			*14.0-149*
(S) 2-Fluorobiphenyl	*88.7*			*34.0-125*
(S) p-Terphenyl-d14	*87.6*			*23.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285294-1 02/08/18 12:20 • (LCSD) R3285294-2 02/08/18 12:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0763	0.0791	95.3	98.9	50.0-125			3.70	20
Acenaphthene	0.0800	0.0732	0.0759	91.4	94.8	52.0-120			3.63	20
Acenaphthylene	0.0800	0.0799	0.0827	99.9	103	51.0-120			3.46	20
Benzo(a)anthracene	0.0800	0.0891	0.0926	111	116	46.0-121			3.81	20
Benzo(a)pyrene	0.0800	0.0793	0.0829	99.1	104	42.0-121			4.45	20
Benzo(b)fluoranthene	0.0800	0.0907	0.0869	113	109	42.0-123			4.23	20
Benzo(g,h,i)perylene	0.0800	0.0816	0.0788	102	98.5	43.0-128			3.49	20
Benzo(k)fluoranthene	0.0800	0.0715	0.0696	89.3	87.1	45.0-128			2.57	20
Chrysene	0.0800	0.0703	0.0729	87.9	91.1	48.0-127			3.61	20
Dibenz(a,h)anthracene	0.0800	0.0835	0.0864	104	108	43.0-132			3.42	20
Fluoranthene	0.0800	0.0783	0.0778	97.9	97.2	49.0-129			0.671	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285294-1 02/08/18 12:20 • (LCSD) R3285294-2 02/08/18 12:41

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Fluorene	0.0800	0.0759	0.0790	94.9	98.7	50.0-120			3.96	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0820	0.0854	102	107	44.0-131			4.08	20
Naphthalene	0.0800	0.0751	0.0771	93.9	96.4	50.0-120			2.65	20
Phenanthrene	0.0800	0.0762	0.0784	95.3	98.0	48.0-120			2.89	20
Pyrene	0.0800	0.0748	0.0742	93.5	92.7	48.0-135			0.849	20
1-Methylnaphthalene	0.0800	0.0805	0.0814	101	102	52.0-122			1.15	20
2-Methylnaphthalene	0.0800	0.0759	0.0777	94.9	97.2	52.0-120			2.35	20
2-Chloronaphthalene	0.0800	0.0740	0.0760	92.5	95.0	50.0-120			2.65	20
(S) Nitrobenzene-d5				*122*	*122*	*14.0-149*				
(S) 2-Fluorobiphenyl				*93.9*	*98.6*	*34.0-125*				
(S) p-Terphenyl-d14				*94.7*	*97.9*	*23.0-120*				

L968449-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L968449-23 02/08/18 18:13 • (MS) R3285294-4 02/08/18 18:33 • (MSD) R3285294-5 02/08/18 18:54

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Anthracene	0.0960	0.00241	0.0593	0.0621	59.2	62.1	1	20.0-136			4.60	24
Acenaphthene	0.0960	0.00376	0.0690	0.0701	67.9	69.1	1	29.0-124			1.58	20
Acenaphthylene	0.0960	0.000818	0.0757	0.0768	78.0	79.1	1	35.0-120			1.40	20
Benzo(a)anthracene	0.0960	0.00109	0.0566	0.0608	57.8	62.2	1	13.0-132			7.20	27
Benzo(a)pyrene	0.0960	U	0.0497	0.0530	51.8	55.2	1	14.0-138			6.32	27
Benzo(b)fluoranthene	0.0960	U	0.0500	0.0550	52.0	57.2	1	10.0-129			9.55	31
Benzo(g,h,i)perylene	0.0960	U	0.0436	0.0493	45.4	51.3	1	10.0-133			12.3	30
Benzo(k)fluoranthene	0.0960	U	0.0435	0.0462	45.3	48.1	1	15.0-131			6.06	27
Chrysene	0.0960	0.000728	0.0480	0.0514	49.2	52.8	1	15.0-137			6.94	25
Dibenz(a,h)anthracene	0.0960	U	0.0495	0.0531	51.5	55.3	1	15.0-132			7.15	27
Fluoranthene	0.0960	U	0.0546	0.0585	56.8	60.9	1	13.0-139			7.01	28
Fluorene	0.0960	0.00339	0.0674	0.0687	66.7	68.0	1	27.0-122			1.87	22
Indeno(1,2,3-cd)pyrene	0.0960	U	0.0453	0.0499	47.2	51.9	1	11.0-133			9.52	29
Naphthalene	0.0960	0.0129	0.0891	0.0879	79.4	78.1	1	18.0-136			1.39	21
Phenanthrene	0.0960	0.00928	0.0708	0.0702	64.1	63.5	1	15.0-133			0.802	25
Pyrene	0.0960	0.00229	0.0529	0.0560	52.7	55.9	1	11.0-146			5.63	29
1-Methylnaphthalene	0.0960	0.0451	0.116	0.112	73.8	69.6	1	24.0-137			3.54	22
2-Methylnaphthalene	0.0960	0.0520	0.117	0.113	67.5	63.7	1	23.0-136			3.18	22
2-Chloronaphthalene	0.0960	U	0.0689	0.0703	71.7	73.2	1	36.0-120			2.08	20
(S) Nitrobenzene-d5					*117*	*116*		*14.0-149*				
(S) 2-Fluorobiphenyl					*81.1*	*84.3*		*34.0-125*				
(S) p-Terphenyl-d14					*61.2*	*73.4*		*23.0-120*				