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From: John Herzog, Robert Trahan and Brian Tracy on behalf of the Port of Anacortes
cc: Brenda Treadwell and Brad Tesch – Port of Anacortes
Date: August 23, 2022
GEI File: 5147-024-13
Subject: Supplemental 2nd Street Right-of-Way Soil Investigation Data Report for the Quiet Cove Site, Anacortes, Washington Ecology Agreed Order No. 11346

INTRODUCTION

This data report technical memorandum presents results of the supplemental 2nd Street Right-of-Way (ROW) Soil Investigation completed at the Quiet Cove Site (Site) in Anacortes, Washington. Soil data for the 2nd Street ROW Soil Investigation was collected on July 5, 2022, in accordance with the Ecology-approved Remedial Investigation/Feasibility Study Work Plan Addendum for Supplemental 2nd Street ROW Soil Investigation for the Quiet Cove Site (Work Plan Addendum; GeoEngineers 2022). The soil data was collected in the northern portion of the Site within 2nd Street to supplement the existing environmental data at the Site and to fill data gaps identified by the Washington State Department of Ecology (Ecology).

The results from this, and the previously completed remedial investigations will be used in conjunction with the results of future investigations to provide the basis for the Remedial Investigation/Feasibility Study (RI/FS) that will identify the nature and extent of contamination, establish proposed cleanup levels, present an evaluation of potential cleanup action alternatives and identify a preferred cleanup action alternative for addressing the identified contamination. Future investigations activities to fill data gaps identified by Ecology include:

- Riparian Area located at the top of the beach between the sediment area and the western property boundary,
- Southern Property Boundary Area located along the southwestern portion of the 2020 interim action remedial excavation limit.
- Sediment Area located west of the Riparian Area.

Investigation activities to delineate Site contaminants in these areas will be described in separate addenda to the RI/FS Work Plan (GeoEngineers 2017).

Soil investigation activities for the 2nd Street ROW portion of the Site are summarized below.

BACKGROUND

Location and Description

The 0.8-acre Quiet Cove property is located between 2nd and 3rd Streets west of O Avenue in Anacortes, Washington (Figure 1) and is being used by the Port of Anacortes (Port) to support operations and services for the Curtis Wharf International Shipping Terminal facility (Curtis Wharf). The ground surface within the property

boundary is generally flat with an approximate elevation of 13 feet above mean lower low water (MLLW) (Figure 2). Within the surrounding area, the ground surface gently slopes to the northwest toward the shoreline of the Guemes Channel.

Historically, the Quiet Cove property was used for bulk fuel storage and distribution from approximately 1909 to at least 1977. Between 1997 and 2013, a storage yard for marine vessels and recreational vehicles, and warehouse was operated on the property. In 2013, the property was purchased by the Port to expand terminal operations for Curtis Wharf.

Previous Investigations and Cleanup Actions

Environmental investigations to evaluate potential impacts from historical property operations were completed by the Port between 2014 and 2018 (Figure 3), and included the following:

- Focused investigation of the Quiet Cove property by GeoEngineers through an Integrated Planning Grant (IPG) in 2014 to evaluate soil and groundwater conditions associated with historical Site operations (GeoEngineers 2014).
- Initial RI completed by the Port in accordance with the Ecology-approved RI/FS Work Plan between September 2017 and March 2018.
- Supplement investigation completed in October 2018 to provide supplemental soil and groundwater to refine the selection of cleanup action alternatives for the upland portion (area above mean higher high water [MHHW]) of the Site (GeoEngineers 2019).

To address petroleum contaminated soil resulting from historical bulk fueling operations to clear environmental encumbrances prior to development of the Port-owned property at the Site, the Port completed an interim action cleanup (Interim Action) in accordance with the Ecology-approved Interim Action Work Plan (IAWP; GeoEngineers 2020) between August and November 2020. The Interim Action resulted in decommissioning existing monitoring wells (MW-1, MW-2, MW-11, and MW-12) located within the remedial excavation footprint, demolishing existing buildings and paved surfaces and excavation of contaminated soils represented by the previous investigation results (Figure 3). Details of the Interim Action are described in Interim Action Construction Completion Report (GeoEngineers 2021a). Currently, quarterly groundwater monitoring is being performed to document changes in groundwater conditions following the Interim Action in accordance with the Ecology-approved Post-Interim Action Construction Monitoring Plan (GeoEngineers 2021b). A report documenting post-interim action groundwater monitoring data will be prepared and submitted to Ecology for review following completion of the four quarterly monitoring events (approximately the fourth quarter of 2022).

Regulatory Framework

On February 11, 2016, the Port entered Agreed Order No. DE 11346 (Agreed Order) with Ecology. Under the Agreed Order, RI activities are being completed by the Port in accordance with the Ecology-approved RI/FS Work Plan to determine the nature and extent of contamination in media of concern, and to complete the RI/FS for the Site as required by the Agreed Order.

Following on a review of the RI and Interim Action soil, groundwater and sediment data collected to date, Ecology identified during a March 3, 2022 meeting, that additional sampling and analysis is required to more completely define the nature and extent of contamination at the Site for the purposes of completing the RI/FS.

2ND STREET RIGHT-OF-WAY SUPPLEMENTAL SOIL INVESTIGATION FIELD ACTIVITIES

In response to Ecology's request to fill data gaps, soil sampling and analysis was completed by the Port to within the 2nd Street ROW north of the 2020 Interim Action area on July 5, 2022, using direct-push (DP) drilling methods. Using a similar approach as previous environmental investigations completed at the Site, soil samples from each boring were collected continuously on 2-foot intervals for potential chemical analysis targeting contaminated or potentially contaminated materials based on field screening and/or different material types, including:

- Non-saturated fill material.
- Saturated fill material at the water table level.
- Native material without evidence of petroleum contamination and at least 1 foot below the fill/native soil interface.

Sampling locations for the for the 2nd Street ROW Soil Investigation (GEI-46 through GEI-53) are shown on Figure 3. In accordance with the Ecology-approved Work Plan Addendum, sample locations were positioned within 2nd Street to provide adequate spatial coverage while avoiding utility conflicts. Soil sample collection and analysis completed as part of this investigation are summarized in the following sections.

Underground Utility Locate

Prior to drilling, an underground utility locate was performed to clear potential utilities and/or underground physical hazards within an approximate 15-foot radius of each location. The underground utility locate included the required public "One-Call" utility locate for 2nd Street and a private utility locate by Applied Professional Service, Inc. (APS) for each specific boring location prior to ground disturbing activities.

Surveying

GeoEngineers field personnel recorded the soil boring locations using global positioning system (GPS) data using a handheld device during sampling activities. The accuracy of the measured and recorded horizontal coordinates was within approximately 3 feet.

Soil Sample Collection and Processing

Soil borings were completed using a track-mounted DP drilling rig owned and operated by a licensed driller in the State of Washington (Cascade Drilling). Each of the DP borings were advanced to depth of approximately 20 feet below ground surface (bgs) and were completed at least 3 feet into the native soil. During drilling activities, representatives from GeoEngineers' staff were present to examine, field screen and classify the soils encountered. Boring logs detailing field screening results and soil types encountered are presented as Attachment 1.

Sample intervals were individually homogenized and placed into the appropriate laboratory-supplied sample containers. Samples for volatile analysis (i.e., gasoline and/or volatile organic compounds [VOCs]) were collected from undisturbed soil at the center of the sampling interval prior to homogenization using United States Environmental Protection Agency (EPA) Method 5035A sampling procedures consistent with Ecology guidance to reduce volatilization and biodegradation of the sample constituents. Immediately upon collection

of the samples, the samples were placed into a cooler with ice and logged on the chain-of-custody using quality assurance and control procedures in accordance with the RI/FS Work Plan.

Soil Sample Laboratory Analysis

Soil samples were submitted to OnSite Environmental, Inc. (OnSite) of Redmond, Washington, for chemical analysis and archiving. Selected soil samples were submitted for a combination of the following analyses in accordance with the Work Plan Addendum:

- Gasoline-range total petroleum hydrocarbons (TPH) by NWTPH-Gx.
- Heavy oil- and diesel-range TPH by NWTPH-Dx.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA 8260.
- Ethylene dibromide (EDB), ethylene dichloride (EDC), methyl tert-butyl ether (MTBE) and n-Hexane by EPA 8260.
- Metals (arsenic, cadmium, chromium, lead and mercury) by EPA 6000/7000.
- Polycyclic aromatic hydrocarbons (PAHs) by EPA 8270-SIM.

Samples collected from the borings that were not submitted for initial chemical analysis were archived for potential follow-up testing. Initial samples were analyzed on an expedited turnaround time to ensure that samples for potential follow up analysis could be completed within the method hold times. Based on the field screening results, soil types encountered and previous investigation results, sixteen (16) samples from borings GEI-46 through GEI-49 were initially submitted for chemical analysis to evaluate soil conditions. Thirteen additional soil samples from borings GEI-50 through GEI-53 were submitted for follow up chemical analysis based on review of initial analytical results.

Decontamination

Drilling equipment was decontaminated prior to completing each exploration. In addition, reusable sampling/monitoring equipment (spoons, bowls, core barrels, etc.) that came into contact with soil was decontaminated prior to each use. Decontamination procedures for this equipment generally consisted of the following:

- Wash with non-phosphate detergent solution (Liqui-Nox[®] and distilled water),
- Rinse with distilled water, and
- Place the decontaminated equipment on clean plastic sheeting or in a plastic bag.

Field personnel limited cross-contamination by changing gloves between sampling events. Wash water used to decontaminate the sampling equipment was placed in a sealed and labeled 35-gallon drum pending permitted offsite disposal.

Disposal of Investigation Derived Materials

Soil cuttings from the borings completed during this investigation were placed in a labeled and sealed 35-gallon drum. The drum is being stored temporarily at a secure location pending permitted offsite disposal.

Incidental waste generated during sampling activities including items such as gloves, plastic sheeting, paper towels and similar expended and discarded field supplies are considered *de minimis* and were disposed of at local trash receptacle.

SOIL SAMPLE ANALYTICAL RESULTS

Laboratory soil analytical data results for this investigation as well as previous investigations completed in the vicinity of 2nd Street are summarized in Table 1. Laboratory soil analytical data results for the interim action confirmation samples collected adjacent to 2nd Street are summarized in Table 2. Remedial investigation and interim action confirmation soil sample results for metals, petroleum hydrocarbons (gasoline, diesel and heavy oil), VOCs and PAHs are shown on Figures 4 through 7, respectively, and further discussed below.

- **Metals** – Within 2nd Street, isolated pockets of metals including lead and/or mercury exceeded the preliminary screening level (PSL) in the vadose zone fill material in boring GEI-30 from approximately 6 to 8 feet bgs, in borings GEI-48 and GEI-49 from approximately 0 to 2 feet bgs and in confirmation soil samples VSS-20 and VSS-22 collected at a depth of approximately 4 feet bgs. West of 2nd Street, chromium, lead and/or mercury exceeded the PSL in borings GEI-38 and GEI-39 at depths ranging from approximately 2 to 14 feet bgs. At the base of the Interim Action area (approximately 10 to 13 feet bgs), chromium exceeded the PSL at locations VSB-38 and VSB-42. At other sampling locations/intervals, metals either were not detected or were detected at concentrations less than the PSL. Although, exceed the PSL in soil, previous investigations indicate that metals do not exceed the PSL in groundwater samples collected from this area.
- **Petroleum Hydrocarbons** – Within 2nd Street and along the northern sidewall of the Interim Action area, petroleum hydrocarbons (gasoline, diesel and/or heavy oil) exceeded the PSL in vadose zone fill material from the ground surface to depths ranging from approximately 6 to 8 feet bgs at multiple locations as shown on Figure 5. To the north, east and west of 2nd Street, petroleum hydrocarbons either were not detected or were detected at concentrations less than the PSL. In addition, petroleum hydrocarbons either were not detected or were detected at concentrations less than the PSL in native soil within the 2nd Street ROW.
- **VOCs** – VOCs including BTEX, EDB, EDC, MTBE and n-hexane either were not detected or were detected at a concentration less than the PSL in soil samples collected within 2nd Street and the surrounding area with one exception. An isolated benzene exceedance was detected in boring GEI-2 in shallow fill soil (0 to 2 feet bgs) at a concentration slightly exceeding the PSL.
- **PAHs** – Within 2nd Street and surrounding area, carcinogenic and/or non-carcinogenic PAHs exceeded the PSL in both vadose and saturated zone fill material from the ground surface to depths ranging from approximately 8 to 12 feet bgs at multiple locations as shown on Figure 7. In native soil PAHs either were not detected or were detected at concentration less than the PSL. Although PAHs exceed the PSL in soil, previous investigations indicate that PAHs do not exceed the PSL in groundwater from this area.

Soil Data Validation and EIM Submittal

The laboratory data for the 2nd Street ROW Investigation (presented as Attachment 2) were subjected to an EPA-defined Stage 2B validation (EPA Document 540-R-2017-01; EPA, 2017) and were determined to be

acceptable for their intended use as qualified. The data validation review is presented as Attachment 3. In accordance Policy 540, soil data collected as part of the 2nd Street ROW Investigation will be submitted to Ecology's Environmental Information Management (EIM) database.

CULTURAL RESOURCE MONITORING

Based on the cultural resources consultation completed by Ecology for the Site, the Department of Archaeology and Historic Preservation (DAHP) required that an archeological monitor be present during ground disturbance activities.

During drilling activities for the 2nd Street ROW Investigation, a representative from Columbia Geotechnical Associates (Columbia; project archologist) was present to observe soil encountered from each boring for evidence of potential cultural resource in accordance with an Ecology-approved Inadvertent Discover Monitoring Plan. A review of the soil borings by Columbia did not identify signs of cultural material or other evidence of historic or pre-historic use of the Site. Based on these findings, Columbia concluded that the ground disturbance activities did not affect or otherwise impact recorded or unrecorded cultural resources.

The register for DAHP will be updated with cultural resources monitoring results for the 2nd Street ROW Investigation, as warranted, to document current Site conditions.

DATA GAP EVALUATION

The Quiet Cove 2nd ROW Soil Investigation was completed in accordance with the Ecology-approved Work Plan Addendum to further characterize soil conditions within the 2nd Street ROW to define the nature and extent of contamination. Based on a review of the soil data collected for this area during this and previous environmental investigations, the nature and extent of petroleum-related contamination (primary contaminant of concern) has been delineated. Additionally, the soil data collected to date for this area indicate VOC and metal exceedances of the PSL are limited in extent and are not widespread in this area. Lastly, although concentrations of PAHs in soil exceed the PSL at multiple locations within this area, the PSL for PAHs is based on protection of surface water. Empirical evidence from groundwater data collected during previous environmental investigations indicate that the soil to groundwater pathway is incomplete (i.e., groundwater PSL exceedances not observed). During preparation of the RI/FS Report, proposed cleanup levels based on complete exposure pathways and ecological receptors will be developed to define the nature and extent of PAH and other Site contamination in soil to identify whether additional remedial actions are required.

REFERENCES

GeoEngineers Inc. 2014. Focused Environmental Site Investigation Data Report, Quiet Cove Property, Anacortes, Washington, GeoEngineers File No. 5147-024-01, dated October 20, 2014.

GeoEngineers Inc. 2017. Final Remedial Investigation/Feasibility Study Work Plan, Quiet Cove Property, Anacortes Washington, Ecology Agreed Order No. DE 11346. Prepared for the Washington Department of Ecology on behalf of the Port of Anacortes. January 25, 2017.

GeoEngineers Inc. 2020. Interim Action Work Plan; Quiet Cove Site; Anacortes, Washington; Ecology Agreed Order No. DE 11346, GeoEngineers File No. 5147-024-07, dated January 9, 2020.

GeoEngineers Inc. 2021a. Interim Action Construction Completion Report; Quiet Cove Interim Action; Anacortes, WA; Ecology Agreed Order No. DE 11346, dated June 22, 2021.

GeoEngineers Inc. 2021b. Post-Interim Action Construction Groundwater Monitoring Plan, Quiet Cove Site, Anacortes, WA; Ecology Agreed Order No. DE 11346, dated August 19, 2021.

GeoEngineers, Inc. 2022. Remedial Investigation/Feasibility Study Work Plan Addendum for Supplemental 2nd Street Right-of-Way Soil Investigation at the Quiet Cove Site, Anacortes, Washington Ecology Agreed Order No. DE 11346.

United States Environmental Protection Agency (EPA). 2004. "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," EPA 540-R-04-004, Office of Emergency and Remedial Response, US Environmental Protection Agency, Washington, DC, dated October 2004.

United States Environmental Protection Agency (EPA). 2008. "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA-540-R-08-01," Office of Emergency and Remedial Response, US Environmental Protection Agency, Washington, DC, dated June 2008.

United States Environmental Protection Agency (EPA). 2017. "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA-540-R-2017-01," Office of Emergency and Remedial Response, US Environmental Protection Agency, Washington, DC, dated January 2017.

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Attachments:

Table 1. Remedial Investigation Soil Analytical Results

Table 2. Interim Action Confirmation Soil Analytical Results

Figure 1. Vicinity Map

Figure 2. Site Plan

Figure 3. Remedial Investigation Sampling Locations and 2021 Interim Action Area

Figure 4. Metals Soil Analytical Results

Figure 5. TPH Soil Analytical Results

Figure 6. VOC Soil Analytical Results

Figure 7. PAH Soil Analytical Results

Attachment 1. Soil Exploration Logs

Attachment 2. Laboratory Data Reports

Attachment 3. Laboratory Data Validation Report

Table 1
Remedial Investigation Soil Analytical Results
 Quiet Cove
 Anacortes, Washington

Sample Location ¹	Preliminary Screening Level ²		GEI-1		GEI-2			GEI-3	GEI-25			GEI-27	GEI-28	
			GEI-1-3-033114	GEI-1-5-033114	GEI-2-1-033114	GEI-2-3-033114	GEI-2-5-033114	GEI-3-3-033114	GEI-25-1-040114	GEI-25-3-040114	GEI-25-5-040114	GEI-27-3-040214	GEI-28-4-040214	
Sample Identification			3/31/2014	3/31/2014	3/31/2014	3/31/2014	3/31/2014	3/31/2014	4/1/2014	4/1/2014	4/1/2014	4/2/2014	4/2/2014	
Sample Date			4-6 ft	8-10 ft	0-2 ft	4-6 ft	8-10 ft	4-6 ft	0-2 ft	4-6 ft	8-10 ft	6-7.5 ft	6-8 ft	
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Vadose	Saturated	Vadose	Saturated	Saturated	Vadose	Vadose	Vadose	Saturated	Vadose	Vadose	
Sample Type														
Field Measured Parameters														
Sheen	NE	NE	HS	NS	NS	MS	NS	HS	SS	HS	NS	NS	NS	
Headspace Vapors (ppm)	NE	NE	155	<1	<1	255	53	124	<1	32	<1	<1	<1	
Metals by EPA 6000/7000 Series (mg/kg)														
Arsenic	20	20	--	--	--	--	--	--	--	12 U	--	--	--	
Cadmium	1.2	1	--	--	--	--	--	--	--	0.59 U	--	--	--	
Chromium	1,000	50	--	--	--	--	--	--	--	34	--	--	--	
Lead	250	24	--	--	--	--	--	--	--	13	--	--	--	
Mercury	0.07	0.07	--	--	--	--	--	--	--	0.29 U	--	--	--	
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)														
Gasoline-range hydrocarbons	30 ³	30 ³	7.4 U	7.8 U	3.4 U	7.7 U	3.8 U	7.6 U	3.3 U	3.9 U	17 U	4.9 U	4.0 U	
Diesel-range hydrocarbons	2,000	2,000	5,800	540	48	2,400	510	750	250	4,300	76	32 U	29 U	
Lube Oil-range hydrocarbons	2,000	2,000	940	97	210	190	77	73	1,100	1,200	580	70	58 U	
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)														
Benzene	0.05	0.05	0.020 U	0.020 U	0.055	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.033 U	0.020 U	0.020 U	
Toluene	3.8	0.22	0.074 U	0.078 U	0.039	0.077 U	0.038 U	0.076 U	0.033 U	0.039 U	0.17 U	0.049 U	0.040 U	
Ethylbenzene	1.1	1.1	0.24	0.078 U	0.21	0.077 U	0.038 U	0.30	0.033 U	0.26	0.17 U	0.049 U	0.040 U	
Total Xylenes	2.8	0.16	0.64	0.0780 U	0.31	0.0770 U	0.0380 U	0.91	0.042	0.16	0.170 U	0.0490 U	0.0400 U	
1,2-Dibromoethane (EDB)	0.002	0.001	--	--	--	--	--	--	--	0.037 U	--	--	--	
1,2-Dichloroethane (EDC)	0.02	0.001	--	--	--	--	--	--	--	0.037 U	--	--	--	
Methyl t-butyl ether (MTBE)	2.6	0.18	--	--	--	--	--	--	--	0.048 U	--	--	--	
n-Hexane	0.27	0.01	--	--	--	--	--	--	--	0.074	--	--	--	
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)														
1-Methylnaphthalene	35	35	--	--	--	--	--	--	--	6.9	--	--	--	
2-Methylnaphthalene	0.77	0.04	--	--	--	--	--	--	--	1.3	--	--	--	
Acenaphthene	0.32	0.02	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthylene	NE	0.068	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	4.4	0.2	--	--	--	--	--	--	--	--	--	--	--	
Benzo(g,h,i)perylene	NE	2	--	--	--	--	--	--	--	--	--	--	--	
Fluoranthene	0.5	0.16	--	--	--	--	--	--	--	--	--	--	--	
Fluorene	0.5	0.16	--	--	--	--	--	--	--	--	--	--	--	
Naphthalene	0.25	0.013	--	--	--	--	--	--	--	1.1	--	--	--	
Phenanthrene	NE	0.1	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	20	1	--	--	--	--	--	--	--	--	--	--	--	

Sample Location ¹	Preliminary Screening Level ²		GEI-1		GEI-2			GEI-3	GEI-25			GEI-27	GEI-28	
Sample Identification			GEI-1-3-033114	GEI-1-5-033114	GEI-2-1-033114	GEI-2-3-033114	GEI-2-5-033114	GEI-3-3-033114	GEI-25-1-040114	GEI-25-3-040114	GEI-25-5-040114	GEI-27-3-040214	GEI-28-4-040214	
Sample Date			3/31/2014	3/31/2014	3/31/2014	3/31/2014	3/31/2014	3/31/2014	4/1/2014	4/1/2014	4/1/2014	4/2/2014	4/2/2014	
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	4-6 ft	8-10 ft	0-2 ft	4-6 ft	8-10 ft	4-6 ft	0-2 ft	4-6 ft	8-10 ft	6-7.5 ft	6-8 ft	
Sample Type			Vadose	Saturated	Vadose	Saturated	Saturated	Vadose	Vadose	Vadose	Saturated	Vadose	Vadose	
Field Measured Parameters														
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)														
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	--	--	--	--	--	--	--	0.19	--	--	--	
Benzo(a)pyrene			--	--	--	--	--	--	--	--	0.11	--	--	--
Benzo(b)fluoranthene			--	--	--	--	--	--	--	--	0.08	--	--	--
Benzo(k)fluoranthene			--	--	--	--	--	--	--	--	0.052	--	--	--
Chrysene			--	--	--	--	--	--	--	--	0.2	--	--	--
Dibenzo(a,h)anthracene			--	--	--	--	--	--	--	--	0.039 U	--	--	--
Indeno(1,2,3-c,d)pyrene			--	--	--	--	--	--	--	--	0.048	--	--	--
Total cPAH TEQ ⁴ (ND=0.5RL)			0.19 ⁵	0.01 ⁵	--	--	--	--	--	--	--	0.151	--	--

Notes:

¹ Sample locations and summary of remedial investigation results are shown on Figure 3 through 7.

² Preliminary screening levels are from the RI/FS Work Plan (GeoEngineers, 2017).

³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.

⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).

⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.

Table 1
Remedial Investigation Soil Analytical Results
 Quiet Cove
 Anacortes, Washington

Sample Location ¹	Preliminary Screening Level ²		GEI-29			GEI-30			GEI-38			GEI-39		
			GEI-29-5-7_091217	GEI-29-10-12_091217	GEI-29-13-15_091217	GEI-30-2-4_091217	GEI-30-6-8_091217	GEI-30-9-11_091217	GEI-38-2-4_091917	GEI-38-5-7_091917	GEI-38-12-14_091917	GEI-39-1-3_091517	GEI-39-5-7_091517	
Sample Identification			9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/19/2017	9/19/2017	9/19/2017	9/15/2017	9/15/2017	
Sample Date			5-7 ft	10-12 ft	13-15 ft	2-4 ft	6-8 ft	9-11 ft	2-4 ft	5-7 ft	12-14 ft	1-3 ft	5-7 ft	
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Vadose	Saturated	Saturated	Vadose	Saturated	Saturated	Vadose	Saturated	Saturated	Vadose	Saturated	
Sample Type														
Field Measured Parameters														
Sheen	NE	NE	NS	NS	NS	NS	SS	NS	NS	NS	NS	NS	SS	
Headspace Vapors (ppm)	NE	NE	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Metals by EPA 6000/7000 Series (mg/kg)														
Arsenic	20	20	3.18	4.47	5.76	2.24	2.16	1.23	3.49	1.33	2.82	3.52	5.92	
Cadmium	1.2	1	0.06 J	0.15	0.06 J	0.06 J	0.05 J	0.13	0.15	0.04 J	0.06 J	0.1	0.49	
Chromium	1,000	50	23.7	31.4	34.5	25.3	29	18.8	24.9	33.7	77.7	19	34.2	
Lead	250	24	18	3.59	4.31	3.36	25.7	1.17	195	2.84	3.28	129	121	
Mercury	0.07	0.07	0.02854 U	0.02750 U	0.02525 U	0.02407	0.02899 U	0.02235 U	0.115	0.0259 U	0.0307	0.05142	0.1407	
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)														
Gasoline-range hydrocarbons	30 ³	30 ³	7.53 U	6.51 U	7.03 U	6.26 U	14.7 U	7.59 U	5.11 U	6.16 U	6.08 U	6.34 U	426	
Diesel-range hydrocarbons	2,000	2,000	9.79	5.85 U	5.97 U	15.4	105	6.07 U	68.9	5.75 U	5.77 U	19.5	1030	
Lube Oil-range hydrocarbons	2,000	2,000	70.1	11.7 U	11.9 U	27.3	259	17.5	189	11.5 U	11.5 U	92.9	2,340	
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)														
Benzene	0.05	0.05	0.00112 U	0.00123 U	0.00122 U	0.00044 J	0.00141 U	0.00116 U	0.00125	0.00060 J	0.00105 U	0.00114 U	0.00174	
Toluene	3.8	0.22	0.00112 U	0.00123 U	0.00122 U	0.00104 U	0.00040 J	0.00034 J	0.00257	0.00106 U	0.00105 U	0.00114 U	0.00179	
Ethylbenzene	1.1	1.1	0.00112 U	0.00123 U	0.00122 U	0.00104 U	0.00141 U	0.00116 U	0.00094 U	0.00106 U	0.00105 U	0.00114 U	0.00129 U	
Total Xylenes	2.8	0.16	0.00224 U	0.00246 U	0.00245 U	0.00209 U	0.00283 U	0.00233 U	0.00137	0.00213 U	0.00209 U	0.00229 U	0.00519	
1,2-Dibromoethane (EDB)	0.002	0.001	0.00112 U	0.00123 U	0.00122 U	0.00104 U	0.00141 U	0.00116 U	0.00094 U	0.00106 U	0.00105 U	0.00114 U	0.00129 U	
1,2-Dichloroethane (EDC)	0.02	0.001	0.00112 U	0.00123 U	0.00122 U	0.00104 U	0.00141 U	0.00116 U	0.00094 U	0.00106 U	0.00105 U	0.00114 U	0.00129 U	
Methyl t-butyl ether (MTBE)	2.6	0.18	0.00112 U	0.00123 U	0.00122 U	0.00104 U	0.00141 U	0.00116 U	0.00094 U	0.00106 U	0.00105 U	0.00114 U	0.00129 U	
n-Hexane	0.27	0.01	0.00112 U	0.00123 U	0.00122 U	0.00104 U	0.00141 U	0.00116 U	0.00094 U	0.00106 U	0.00105 U	0.00114 U	0.00129 U	
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)														
1-Methylnaphthalene	35	35	0.0116	0.00478 U	0.00491 U	0.00492 U	0.0339	0.00491 U	0.00898	0.00481 U	0.00479 U	0.00436 J	1.97	
2-Methylnaphthalene	0.77	0.04	0.0182	0.00478 U	0.00491 U	0.00257 J	0.0667	0.00491 U	0.0131	0.00481 U	0.00479 U	0.00404 J	1.3	
Acenaphthene	0.32	0.02	0.00644	0.00478 U	0.00491 U	0.00492 U	0.0162	0.00491 U	0.00551	0.00247 J	0.00479 U	0.00466 U	0.327	
Acenaphthylene	NE	0.068	0.00902	0.00478 U	0.00491 U	0.00492 U	0.376	0.00491 U	0.0305	0.00481 U	0.00479 U	0.00812	0.717	
Anthracene	4.4	0.2	0.0212	0.00478 U	0.00491 U	0.00492 U	1.03	0.00433 J	0.0516	0.00481 U	0.00479 U	0.00974	1.14	
Benzo(g,h,i)perylene	NE	2	0.0595	0.00478 U	0.00491 U	0.00492 U	1.58	0.00787	0.155	0.00306 J	0.00479 U	0.035	2.21	
Fluoranthene	0.5	0.16	0.104	0.00344 J	0.00491 U	0.00380 J	4.21	0.0207	0.323	0.0138	0.00479 U	0.0676	6.78	
Fluorene	0.5	0.16	0.00841	0.00478 U	0.00491 U	0.00492 U	0.0883	0.00491 U	0.016	0.00481 U	0.00479 U	0.00460 J	0.397	
Naphthalene	0.25	0.013	0.00834	0.00478 U	0.00491 U	0.00286 J	0.143	0.00491 U	0.0159	0.00287 J	0.00479 U	0.00557	1.2	
Phenanthrene	NE	0.1	0.0792	0.00478 U	0.00491 U	0.00463 J	1.38	0.00553	0.174	0.00755	0.00479 U	0.04	1.82	
Pyrene	20	1	0.118	0.00449 J	0.00491 U	0.00576	4.71	0.025	0.342	0.00986	0.00479 U	0.0765	7.23	

Sample Location ¹	Preliminary Screening Level ²		GEI-29			GEI-30			GEI-38			GEI-39	
Sample Identification			GEI-29-5-7_091217	GEI-29-10-12_091217	GEI-29-13-15_091217	GEI-30-2-4_091217	GEI-30-6-8_091217	GEI-30-9-11_091217	GEI-38-2-4_091917	GEI-38-5-7_091917	GEI-38-12-14_091917	GEI-39-1-3_091517	GEI-39-5-7_091517
Sample Date			9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/19/2017	9/19/2017	9/19/2017	9/15/2017	9/15/2017
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	5-7 ft	10-12 ft	13-15 ft	2-4 ft	6-8 ft	9-11 ft	2-4 ft	5-7 ft	12-14 ft	1-3 ft	5-7 ft
Sample Type			Vadose	Saturated	Saturated	Vadose	Saturated	Saturated	Vadose	Saturated	Saturated	Vadose	Saturated
Field Measured Parameters													
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)													
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.058	0.00478 U	0.00491 U	0.00492 U	2.32	0.0107	0.169	0.00313 J	0.00479 U	0.0371	3.82
Benzo(a)pyrene			0.0666	0.00286 J	0.00491 U	0.00492 U	2.39	0.0117	0.183	0.00302 J	0.00479 U	0.0378	3.29
Benzo(b)fluoranthene			0.0427	0.00478 U	0.00491 U	0.00492 U	1.35	0.00613	0.12	0.00188 J	0.00479 U	0.0303	2.25
Benzo(k)fluoranthene			0.021	0.00478 U	0.00491 U	0.00492 U	0.792	0.00427 J	0.0737	0.00159 J	0.00479 U	0.0162	1.32
Chrysene			0.0776	0.00478 U	0.00491 U	0.00492 U	2.27	0.0117	0.168	0.00312 J	0.00479 U	0.0428	3.66
Dibenzo(a,h)anthracene			0.0104	0.00478 U	0.00491 U	0.00492 U	0.338	0.00491 U	0.0372	0.00481 U	0.00479 U	0.00847	0.734
Indeno(1,2,3-c,d)pyrene			0.0419	0.00478 U	0.00491 U	0.00492 U	1.38	0.00626	0.12	0.00481 U	0.00479 U	0.0273	1.82
Total cPAH TEQ ⁴ (ND=0.5RL)			0.19 ⁵	0.01 ⁵	0.0848	0.00408	0.00371 U	0.00371 U	3.03	0.0146	0.237	0.00419	0.00362 U

Notes:

¹ Sample locations and summary of remedial investigation results are shown on Figure 3 through 7.

² Preliminary screening levels are from the RI/FS Work Plan (GeoEngineers, 2017).

³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.

⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).

⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.

Table 1
Remedial Investigation Soil Analytical Results
 Quiet Cove
 Anacortes, Washington

Sample Location ¹	Preliminary Screening Level ²		GEI-39	GEI-44		MW_12				GEI-46		
			GEI-39-8-10_091517	GEI-44-2-4_091317	GEI-44-7-9_091317	GEI-44-10-12_091317	MW-12-3-4	MW-12-7.5-9.5	MW-12-11-12	MW-12-14-15	GEI-46_0-2	GEI-46_6-8
Sample Identification			9/15/2017	9/13/2017	9/13/2017	9/13/2017	10/18/18	10/18/18	10/18/18	10/18/18	7/5/2022	7/5/2022
Sample Date			8-10 ft	2-4 ft	7-9 ft	10-12 ft	3-4 ft	7.5-9.5 ft	11-12 ft	14-15 ft	0-2 ft	6-8 ft
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Saturated	Vadose	Saturated	Saturated	Vadose	Saturated	Saturated	Saturated	Vadose	Vadose
Sample Type												
Field Measured Parameters												
Sheen	NE	NE	NS	NS	NS	NS	NS	HS	SS	NS	SS	HS
Headspace Vapors (ppm)	NE	NE	<1	<1	<1	<1	<1	125	243	<1	3.6	467.4
Metals by EPA 6000/7000 Series (mg/kg)												
Arsenic	20	20	1.48	4.73	1.53	1.34	--	--	--	--	10 U	11 U
Cadmium	1.2	1	0.04 J	0.24	0.07 J	0.02 J	--	--	--	--	0.52 U	0.56 U
Chromium	1,000	50	17.4	25.1	16.3	19.3	--	--	--	--	32	13
Lead	250	24	10.9	28.7	0.94	1.08	--	--	--	--	44	5.6 U
Mercury	0.07	0.07	0.02027 U	0.03667	0.02592 U	0.02461 U	--	--	--	--	0.052 U	0.056 U
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)												
Gasoline-range hydrocarbons	30 ³	30 ³	6.28 U	6.23 U	6.86 U	6.4 U	5.23 U	3,010	762	6.08 U	3.9 U	1,200 U
Diesel-range hydrocarbons	2,000	2,000	11.5	57	5.93 U	5.75 U	36.4	1,300	220	5.75 U	60 U	3,500
Lube Oil-range hydrocarbons	2,000	2,000	26.3	247	11.9 U	11.5 U	69.9	200	57.6	11.5 U	670	710
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)												
Benzene	0.05	0.05	0.00141	0.00098 J	0.00109 U	0.00110 U	0.00057 J	0.0475 U	0.00134	0.00086 U	0.00073 U	0.0011 U
Toluene	3.8	0.22	0.00099 U	0.00041 J	0.00109 U	0.00110 U	0.00246	0.0475 U	0.00391	0.00086 U	0.0037 U	0.0055 U
Ethylbenzene	1.1	1.1	0.00099 U	0.00107 U	0.00109 U	0.00110 U	0.00075 U	0.0475 U	0.00098 U	0.00086 U	0.0073 U	0.0025 U
Total Xylenes	2.8	0.16	0.00198 U	0.00213 U	0.00219 U	0.00220 U	0.00038	0.0362	0.00161	0.00172 U	0.0223 U	0.0139 U
1,2-Dibromoethane (EDB)	0.002	0.001	0.00099 U	0.00107 U	0.00109 U	0.00110 U	--	--	--	--	0.00037 U	0.00055 U
1,2-Dichloroethane (EDC)	0.02	0.001	0.00099 U	0.00107 U	0.00109 U	0.00110 U	--	--	--	--	0.00037 U	0.00055 U
Methyl t-butyl ether (MTBE)	2.6	0.18	0.00099 U	0.00107 U	0.00109 U	0.00110 U	--	--	--	--	0.00073 U	0.0011 U
n-Hexane	0.27	0.01	0.00099 U	0.00107 U	0.00109 U	0.00110 U	--	--	--	--	0.0037 U	0.0055 U
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)												
1-Methylnaphthalene	35	35	0.00422 J	0.0685	0.00494 U	0.00479 U	0.011	1.77	0.223	0.00307 J	0.033	6.5
2-Methylnaphthalene	0.77	0.04	0.00441 J	0.104	0.00494 U	0.00479 U	0.0205	1.89	0.134	0.00180 J	0.05	4.5
Acenaphthene	0.32	0.02	0.00359 J	0.00479 U	0.00494 U	0.00479 U	0.00208 J	--	--	--	0.0069 U	0.43
Acenaphthylene	NE	0.068	0.00471 J	0.0138	0.00494 U	0.00479 U	0.00566	0.0737	0.0118	0.00481 U	0.25	0.17
Anthracene	4.4	0.2	0.00447 J	0.0242	0.00494 U	0.00479 U	0.00998	--	--	--	2.9	0.017
Benzo(g,h,i)perylene	NE	2	0.00573	0.1	0.00494 U	0.00479 U	0.0204	--	--	--	0.43	0.010
Fluoranthene	0.5	0.16	0.0345	0.0937	0.00494 U	0.00479 U	0.0378	--	--	--	0.72	0.022
Fluorene	0.5	0.16	0.00397 J	0.00363 J	0.00494 U	0.00479 U	0.0112	--	--	--	0.017	0.62
Naphthalene	0.25	0.013	0.00703	0.162	0.00494 U	0.00479 U	0.0154	0.146	0.019	0.00481 U	0.026	0.50
Phenanthrene	NE	0.1	0.0134	0.0843	0.00494 U	0.00479 U	0.0286	--	--	--	0.16	0.52
Pyrene	20	1	0.0442	0.102	0.00494 U	0.00479 U	0.039	--	--	--	0.67	0.026

Sample Location ¹	Preliminary Screening Level ²		GEI-39	GEI-44		MW_12				GEI-46		
Sample Identification			GEI-39-8-10_091517	GEI-44-2-4_091317	GEI-44-7-9_091317	GEI-44-10-12_091317	MW-12-3-4	MW-12-7.5-9.5	MW-12-11-12	MW-12-14-15	GEI-46_0-2	GEI-46_6-8
Sample Date			9/15/2017	9/13/2017	9/13/2017	9/13/2017	10/18/18	10/18/18	10/18/18	10/18/18	7/5/2022	7/5/2022
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	8-10 ft	2-4 ft	7-9 ft	10-12 ft	3-4 ft	7.5-9.5 ft	11-12 ft	14-15 ft	0-2 ft	6-8 ft
Sample Type			Saturated	Vadose	Saturated	Saturated	Vadose	Saturated	Saturated	Saturated	Vadose	Vadose
Field Measured Parameters												
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)												
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.0112	0.0477	0.00494 U	0.00479 U	0.074	0.014 U	0.011	0.051	0.0040 U	0.024
Benzo(a)pyrene			0.00879	0.0515	0.00494 U	0.00479 U	0.093	0.028 U	0.013	0.070	0.0079 U	0.027
Benzo(b)fluoranthene			0.00586	0.0469	0.00494 U	0.00479 U	0.094	0.028 U	0.016	0.070	0.0079 U	0.053
Benzo(k)fluoranthene			0.00358 J	0.0248	0.00494 U	0.00479 U	0.024	0.028 U	0.0070 U	0.0076 U	0.0079 U	0.013
Chrysene			0.00993	0.0605	0.00494 U	0.00479 U	0.079	0.028 U	0.011	0.094	0.0079 U	0.029
Dibenzo(a,h)anthracene			0.00495 U	0.0129	0.00494 U	0.00479 U	0.011	0.028 U	0.0070 U	0.010	0.0079 U	0.0094 U
Indeno(1,2,3-c,d)pyrene			0.0051	0.0536	0.00494 U	0.00479 U	0.080	0.028 U	0.013	0.047	0.0079 U	0.031
Total cPAH TEQ ⁴ (ND=0.5RL)			0.19 ⁵	0.01 ⁵	0.0117	0.0707	0.00373 U	0.00362 U	0.122	0.019 U	0.018	0.089

Notes:

- ¹ Sample locations and summary of remedial investigation results are shown on Figure 3 through 7.
 - ² Preliminary screening levels are from the RI/FS Work Plan (GeoEngineers, 2017).
 - ³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.
 - ⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).
 - ⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.
- ppm = parts per million
mg/kg = milligrams per kilogram
-- = not analyzed
NE = Not Established
ND = Not Detected
U = The analyte was not detected at a concentration greater than the value identified.
J = The analyte was detected and the detected concentration is considered an estimate.
Blue shading indicates that the practical quantitation limit (PQL) is above screening level.
Yellow shading indicates that the identified concentration is greater than the preliminary screening level.
Bold font type indicates the analyte was detected at the reported concentration.

Table 1
Remedial Investigation Soil Analytical Results
 Quiet Cove
 Anacortes, Washington

Sample Location ¹	Preliminary Screening Level ²		GEI-46		GEI-47		GEI-47		GEI-48			
			GEI-46_12-14	GEI-46_16-18	GEI-47_0-2	GEI-47_4-6	GEI-47_10-12	GEI-47_14-16	GEI-48_0-2	GEI-48_4-6	GEI-48_10-12	GEI-48_16-18
Sample Identification			7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022
Sample Date			12-14 ft	16-18 ft	0-2 ft	4-6 ft	10-12 ft	14-16 ft	0-2 ft	4-6 ft	10-12 ft	14-16 ft
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Saturated	Saturated	Vadose	Vadose	Saturated	Saturated	Vadose	Vadose	Saturated	Saturated
Sample Type												
Field Measured Parameters												
Sheen	NE	NE	SS	NS	NS	HS	NS	NS	SS	HS	NS	NS
Headspace Vapors (ppm)	NE	NE	28.4	1.8	96.3	489.3	23.3	4.2	11.0	135.2	12.3	2.1
Metals by EPA 6000/7000 Series (mg/kg)												
Arsenic	20	20	12 U	11 U	10 U	12 U	12 U	11 U	10 U	11 U	12 U	12 U
Cadmium	1.2	1	0.60 U	0.57 U	0.52 U	0.58 U	0.59 U	0.53 U	0.51 U	0.56 U	0.61 U	0.58 U
Chromium	1,000	50	24	26	29	44	16	24	32	26	27	25
Lead	250	24	6.0 U	5.7 U	43	25	5.9 U	5.34 U	69	20	10	5.8 U
Mercury	0.07	0.07	0.060 U	0.057 U	0.052 U	0.06	0.059 U	0.053 U	0.13	0.056 U	0.061 U	0.058 U
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)												
Gasoline-range hydrocarbons	30 ³	30 ³	4.6 U	3.5 U	31	1,200 U	4.2 U	3.0 U	17	320 U	13 U	4.8 U
Diesel-range hydrocarbons	2,000	2,000	30 U	29 U	2,600	2,600	89	27	1,200	2,400	880	29 U
Lube Oil-range hydrocarbons	2,000	2,000	62	57 U	6,000	1,400	150	71	3,800	1,900	720	58 U
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)												
Benzene	0.05	0.05	0.00068 U	0.00074 U	0.00094	0.0013 U	0.00072 U	0.00059 U	0.00071 U	0.00056 U	0.0011 U	0.00099 U
Toluene	3.8	0.22	0.0034 U	0.0037 U	0.0034 U	0.0063 U	0.0036 U	0.0030 U	0.0036 U	0.0028 U	0.0057 U	0.0049 U
Ethylbenzene	1.1	1.1	0.00068 U	0.00074 U	0.0014	0.0024 U	0.00072 U	0.00059 U	0.00071 U	0.00056 U	0.0011 U	0.00099 U
Total Xylenes	2.8	0.16	0.00208 U	0.00224 U	0.0078	0.0085 U	0.00212 U	0.00179 U	0.0011	0.00166 U	0.0034 U	0.00299 U
1,2-Dibromoethane (EDB)	0.002	0.001	0.0034 U	0.00037 U	0.00034 U	0.00063 U	0.00036 U	0.00030 U	0.00036 U	0.00028 U	0.00057 U	0.00049 U
1,2-Dichloroethane (EDC)	0.02	0.001	0.0034 U	0.00037 U	0.00034 U	0.00063 U	0.00036 U	0.00030 U	0.00036 U	0.00028 U	0.00057 U	0.00049 U
Methyl t-butyl ether (MTBE)	2.6	0.18	0.00068 U	0.00074 U	0.00068 U	0.0013 U	0.00072 U	0.00059 U	0.00071 U	0.00056 U	0.0011 U	0.00099 U
n-Hexane	0.27	0.01	0.0034 U	0.0037 U	0.0034 U	0.0063 U	0.0036 U	0.0030 U	0.013	0.0028 U	0.0057 U	0.0049 U
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)												
1-Methylnaphthalene	35	35	0.0080 U	0.0076 U	1.1	4.6	0.14	0.0082	0.12	2.3	1.7	0.0077 U
2-Methylnaphthalene	0.77	0.04	0.0080 U	0.0076 U	1.6	7.1	0.23	0.0074	0.2	4	2.5	0.0077 U
Acenaphthene	0.32	0.02	0.0080 U	0.0076 U	0.22	0.22	0.014	0.0071 U	0.039	0.076	0.14	0.0077 U
Acenaphthylene	NE	0.068	0.0080 U	0.0076 U	0.093	0.1	0.0079	0.0071 U	0.018	0.11	0.065	0.0077 U
Anthracene	4.4	0.2	0.0080 U	0.0076 U	0.21	0.082	0.012	0.0071 U	0.031	0.085	0.038	0.0077 U
Benzo(g,h,i)perylene	NE	2	0.0080 U	0.0076 U	0.13	0.073	0.011	0.0071 U	0.058	0.036	0.039	0.0077 U
Fluoranthene	0.5	0.16	0.0080 U	0.0076 U	0.14	0.15	0.013	0.0071 U	0.049	0.13	0.087	0.0077 U
Fluorene	0.5	0.16	0.0080 U	0.0076 U	0.31	0.51	0.026	0.0071 U	0.055	0.46	0.28	0.0077 U
Naphthalene	0.25	0.013	0.0080 U	0.0076 U	0.37	0.73	0.037	0.0071 U	0.04	0.4	0.15	0.0077 U
Phenanthrene	NE	0.1	0.0080 U	0.0076 U	0.64	0.62	0.042	0.0071 U	0.16	0.48	0.37	0.0077 U
Pyrene	20	1	0.0080 U	0.0076 U	0.59	0.15	0.034	0.0071 U	0.16	0.23	0.11	0.0077 U

Sample Location ¹	Preliminary Screening Level ²		GEI-46		GEI-47		GEI-47		GEI-48			
Sample Identification			GEI-46_12-14	GEI-46_16-18	GEI-47_0-2	GEI-47_4-6	GEI-47_10-12	GEI-47_14-16	GEI-48_0-2	GEI-48_4-6	GEI-48_10-12	GEI-48_16-18
Sample Date	Level ²		7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	12-14 ft	16-18 ft	0-2 ft	4-6 ft	10-12 ft	14-16 ft	0-2 ft	4-6 ft	10-12 ft	14-16 ft
Sample Type			Saturated	Saturated	Vadose	Vadose	Saturated	Saturated	Vadose	Vadose	Saturated	Saturated
Field Measured Parameters												
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)												
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.0040 U	0.0038 U	0.22	0.08	0.013	0.0036 U	0.063	0.059	0.048	0.0038 U
Benzo(a)pyrene			0.0080 U	0.0076 U	0.13	0.091	0.0098	0.0071 U	0.053	0.035	0.047	0.0077 U
Benzo(b)fluoranthene			0.0080 U	0.0076 U	0.13	0.082	0.012	0.0071 U	0.047	0.047	0.048	0.0077 U
Benzo(k)fluoranthene			0.0080 U	0.0076 U	0.034 U	0.024	0.0079 U	0.0071 U	0.014 U	0.0074 U	0.012	0.0077 U
Chrysene			0.0080 U	0.0076 U	0.33	0.11	0.022	0.0071 U	0.13	0.11	0.069	0.0077 U
Dibenzo(a,h)anthracene			0.0080 U	0.0076 U	0.034 U	0.015	0.0079 U	0.0071 U	0.014 U	0.0074 U	0.0084	0.0077 U
Indeno(1,2,3-c,d)pyrene			0.0080 U	0.0076 U	0.077	0.062	0.0079 U	0.0071 U	0.025	0.024	0.029	0.0077 U
Total cPAH TEQ ⁴ (ND=0.5RL)	0.19 ⁵	0.01 ⁵	0.0054 U	0.0052 U	0.176	0.118	0.014	0.0048 U	0.069	0.050	0.062	0.0052 U

Notes:

- ¹ Sample locations and summary of remedial investigation results are shown on Figure 3 through 7.
- ² Preliminary screening levels are from the RI/FS Work Plan (GeoEngineers, 2017).
- ³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.
- ⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).
- ⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.

Table 1
Remedial Investigation Soil Analytical Results
 Quiet Cove
 Anacortes, Washington

Sample Location ¹	Preliminary Screening Level ²		GEI-49				GEI-50			GEI-51		
			GEI-49_0-2	GEI-49_4-6	GEI-49_8-10	GEI-49_14-16	GEI-50_0-2	GEI-50_4-6	GEI-50_8-10	GEI-51_0-2	GEI-51_6-8	GEI-51_10-12
Sample Identification			7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/4/2022	7/5/2022	7/5/2022	7/5/2022
Sample Date			0-2 ft	4-6 ft	8-10 ft	16-18 ft	0-2 ft	4-6 ft	8-10 ft	0-2 ft	6-8 ft	10-12 ft
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Vadose	Vadose	Saturated	Saturated	Vadose	Vadose	Saturated	Vadose	Vadose	Saturated
Sample Type												
Field Measured Parameters												
Sheen	NE	NE	SS	HS	NS	NS	NS	SS-MS	NS	SS	MS	NS
Headspace Vapors (ppm)	NE	NE	20.6	425.0	8.2	1.1	4.9	3.6	3.0	6.4	8.3	0.4
Metals by EPA 6000/7000 Series (mg/kg)												
Arsenic	20	20	11 U	11 U	18 U	12 U	10 U	11 U	12 U	10 U	12 U	12 U
Cadmium	1.2	1	0.53 U	0.55 U	1.8 U	0.060 U	0.51 U	0.56 U	0.62 U	0.51 U	0.59 U	0.61 U
Chromium	1,000	50	24	37	35	28	33	13	15	19	18	16
Lead	250	24	38	5.5	18 U	8.0 U	6	14	6.2 U	6	11	6.1 U
Mercury	0.07	0.07	0.098	0.055 U	0.066 U	0.060 U	0.051 U	0.056 U	0.062 U	0.051 U	0.059 U	0.061 U
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)												
Gasoline-range hydrocarbons	30 ³	30 ³	17 U	1,600 U	64 U	4.5U	4.7 U	3.9 U	4.7 U	4.2 U	5.7 U	4.5 U
Diesel-range hydrocarbons	2,000	2,000	71	3,400	290	30 U	26 U	47 U	31 U	26 U	33 U	30 U
Lube Oil-range hydrocarbons	2,000	2,000	440	850	1,900	60 U	320	290	62 U	90	130	61 U
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)												
Benzene	0.05	0.05	0.0010 U	0.22 U	0.0055 U	0.00080 U	0.00057 U	0.00067 U	0.00067 U	0.00086 U	0.00073 U	0.00074 U
Toluene	3.8	0.22	0.0050 U	1.1 U	0.028 U	0.0040 U	0.0029 U	0.0033 U	0.0034 U	0.0043 U	0.0037 U	0.0037 U
Ethylbenzene	1.1	1.1	0.0012 U	0.22 U	0.0055 U	0.00080 U	0.00057 U	0.00067 U	0.00067 U	0.00086 U	0.00073 U	0.00074 U
Total Xylenes	2.8	0.16	0.0041 U	0.65 U	0.0165 U	0.0024 U	0.00167 U	0.00197 U	0.00197 U	0.00256 U	0.00223 U	0.00224 U
1,2-Dibromoethane (EDB)	0.002	0.001	0.00050 U	0.11 U	0.0028 U	0.00040 U	0.00029 U	0.00033 U	0.00034 U	0.00043 U	0.00037 U	0.00037 U
1,2-Dichloroethane (EDC)	0.02	0.001	0.00050 U	0.11 U	0.0028 U	0.00040 U	0.00029 U	0.00033 U	0.00034 U	0.00043 U	0.00037 U	0.00037 U
Methyl t-butyl ether (MTBE)	2.6	0.18	0.0010 U	0.22 U	0.0055 U	0.00080 U	0.00057 U	0.00067 U	0.00067 U	0.00086 U	0.00073 U	0.00074 U
n-Hexane	0.27	0.01	0.0050 U	1.1 U	0.028 U	0.0040 U	0.0029 U	0.0033 U	0.0034 U	0.0043 U	0.0037 U	0.0037 U
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)												
1-Methylnaphthalene	35	35	0.27	12	0.038 U	0.0099	0.0068 U	0.16	0.0082 U	0.0068 U	0.36	0.066
2-Methylnaphthalene	0.77	0.04	0.35	19	0.048 U	0.016	0.008	0.34	0.0082 U	0.0068 U	0.53	0.061
Acenaphthene	0.32	0.02	0.014	0.82	0.025 U	0.0080 U	0.0068 U	0.036	0.0082 U	0.0068 U	0.0079 U	0.0081 U
Acenaphthylene	NE	0.068	0.033	0.21	0.025 U	0.0080 U	0.012	0.67	0.0082 U	0.0068 U	0.022	0.0081 U
Anthracene	4.4	0.2	0.029	0.13	0.025 U	0.0080 U	0.02	1.4	0.0082 U	0.0068 U	0.053	0.0081 U
Benzo(g,h,i)perylene	NE	2	0.077	0.037	0.025 U	0.0080 U	0.026	3.0	0.0082 U	0.012	0.036	0.0081 U
Fluoranthene	0.5	0.16	0.10	0.099	0.025 U	0.0080 U	0.018	11	0.0082 U	0.044	0.10	0.012
Fluorene	0.5	0.16	0.021	1.4	0.025 U	0.0080 U	0.0068 U	0.18	0.0082 U	0.0068 U	0.026	0.0081 U
Naphthalene	0.25	0.013	0.058	0.3	0.025 U	0.0080 U	0.0068 U	0.48	0.0082 U	0.0079	0.29	0.046
Phenanthrene	NE	0.1	0.078	1.9	0.025 U	0.0080 U	0.0083	4.3	0.0082 U	0.025	0.15	0.020
Pyrene	20	1	0.11	0.16	0.025 U	0.0080 U	0.024	11	0.0082 U	0.039	0.13	0.012

Sample Location ¹	Preliminary Screening Level ²		GEI-49				GEI-50			GEI-51		
			GEI-49_0-2	GEI-49_4-6	GEI-49_8-10	GEI-49_14-16	GEI-50_0-2	GEI-50_4-6	GEI-50_8-10	GEI-51_0-2	GEI-51_6-8	GEI-51_10-12
Sample Identification			7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/4/2022	7/5/2022	7/5/2022	7/5/2022
Sample Date			0-2 ft	4-6 ft	8-10 ft	16-18 ft	0-2 ft	4-6 ft	8-10 ft	0-2 ft	6-8 ft	10-12 ft
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Vadose	Vadose	Saturated	Saturated	Vadose	Vadose	Saturated	Vadose	Vadose	Saturated
Sample Type												
Field Measured Parameters												
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)												
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.073	0.089	0.012	0.0040 U	0.013	5.4	0.0041 U	0.019	0.065	0.0040 U
Benzo(a)pyrene			0.075	0.059	0.025 U	0.0080 U	0.018	5.6	0.0082 U	0.018	0.065	0.0081 U
Benzo(b)fluoranthene			0.09	0.05	0.025 U	0.0080 U	0.038	5.1	0.0082 U	0.022	0.065	0.0081 U
Benzo(k)fluoranthene			0.026	0.0088	0.025 U	0.0080 U	0.0099	1.8	0.0082 U	0.0068 U	0.023	0.0081 U
Chrysene			0.065	0.13	0.025 U	0.0080 U	0.024	5.0	0.0082 U	0.017	0.068	0.0081 U
Dibenzo(a,h)anthracene			0.013	0.0093	0.025 U	0.0080 U	0.0068 U	0.56	0.0082 U	0.0068 U	0.0079 U	0.0081 U
Indeno(1,2,3-c,d)pyrene			0.058	0.031	0.025 U	0.0080 U	0.019	3.0	0.0082 U	0.013	0.036	0.0081 U
Total cPAH TEQ ⁴ (ND=0.5RL)	0.19 ⁵	0.01 ⁵	0.102	0.079	0.019	0.0054 U	0.027	7.236	0.0056 U	0.024	0.085	0.0055 U

Notes:

¹ Sample locations and summary of remedial investigation results are shown on Figure 3 through 7.

² Preliminary screening levels are from the RI/FS Work Plan (GeoEngineers, 2017).

³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.

⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).

⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.

Table 1
Remedial Investigation Soil Analytical Results
 Quiet Cove
 Anacortes, Washington

Sample Location ¹	Preliminary Screening Level ²		GEI-52			GEI-53	GEI-53		
			GEI-52_0-2	GEI-52_4-6	GEI-52_8-10	GEI-53_0-2	GEI-53_2-4	GEI-53_4-6	GEI-53_8-10
Sample Identification			7/5/2022	7/5/2022	7/4/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022
Sample Date			0-2 ft	4-6 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	8-10 ft
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Vadose	Vadose	Saturated	Vadose	Vadose	Vadose	Saturated
Sample Type									
Field Measured Parameters									
Sheen	NE	NE	SS	MS	NS	SS	NS	NS	NS
Headspace Vapors (ppm)	NE	NE	14.7	15.3	10.8	0.6	33.5	9.3	8.3
Metals by EPA 6000/7000 Series (mg/kg)									
Arsenic	20	20	10 U	11 U	21 U	10 U	11 U	12 U	14 U
Cadmium	1.2	1	0.52 U	0.54 U	2.1 U	0.52 U	0.57 U	0.60 U	0.71 U
Chromium	1,000	50	31	32	22	20	21	25	26
Lead	250	24	10	37	21 U	11	16.0	6.0 U	7.1 U
Mercury	0.07	0.07	0.052 U	0.064	0.062 U	0.052 U	0.057 U	0.060 U	0.064 U
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)									
Gasoline-range hydrocarbons	30 ³	30 ³	5.4 U	4.9 U	71 U	4.6 U	75 U	5.7 U	8.5 U
Diesel-range hydrocarbons	2,000	2,000	26 U	120 U	100 U	26 U	580	30 U	120
Lube Oil-range hydrocarbons	2,000	2,000	280	700	380	320	1,000	60 U	600
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)									
Benzene	0.05	0.05	0.00088 U	0.00072 U	0.0056 U	0.00099 U	0.00092 U	0.00090 U	0.0012 U
Toluene	3.8	0.22	0.0044 U	0.0036 U	0.028 U	0.0049 U	0.0046 U	0.0045 U	0.0061 U
Ethylbenzene	1.1	1.1	0.00088 U	0.00072 U	0.0056 U	0.00099 U	0.00092 U	0.00090 U	0.0012 U
Total Xylenes	2.8	0.16	0.00268 U	0.00212 U	0.0166 U	0.00299 U	0.00272 U	0.0027 U	0.0036 U
1,2-Dibromoethane (EDB)	0.002	0.001	0.00044 U	0.00036 U	0.0028 U	0.00049 U	0.00046 U	0.00090 U	0.00061 U
1,2-Dichloroethane (EDC)	0.02	0.001	0.00044 U	0.00036 U	0.0028 U	0.00049 U	0.00046 U	0.00090 U	0.00061 U
Methyl t-butyl ether (MTBE)	2.6	0.18	0.00088 U	0.00072 U	0.0056 U	0.00099 U	0.00092 U	0.00090 U	0.0012 U
n-Hexane	0.27	0.01	0.0044 U	0.0036 U	0.028 U	0.0049 U	0.0046 U	0.0045 U	0.0061 U
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)									
1-Methylnaphthalene	35	35	0.0069 U	0.12	0.028 U	0.0070	0.11	0.0079 U	0.0097
2-Methylnaphthalene	0.77	0.04	0.011	0.23	0.028 U	0.012	0.19	0.0079 U	0.021
Acenaphthene	0.32	0.02	0.0069 U	0.0099	0.028 U	0.0070 U	0.035	0.0079 U	0.0094 U
Acenaphthylene	NE	0.068	0.033	0.031	0.028 U	0.015	0.034	0.0079 U	0.016
Anthracene	4.4	0.2	0.040	0.043	0.028 U	0.026	0.057	0.0079 U	0.025
Benzo(g,h,i)perylene	NE	2	0.13	0.11	0.028 U	0.029	0.061	0.0079 U	0.039
Fluoranthene	0.5	0.16	0.092	0.13	0.028 U	0.015	0.086	0.0079 U	0.037
Fluorene	0.5	0.16	0.0069 U	0.029	0.028 U	0.0070 U	0.058	0.0079 U	0.0094 U
Naphthalene	0.25	0.013	0.0069 U	0.12	0.028 U	0.0080	0.089	0.0079 U	0.0094 U
Phenanthrene	NE	0.1	0.020	0.14	0.028 U	0.010	0.080	0.0079 U	0.017
Pyrene	20	1	0.16	0.17	0.028 U	0.018	0.20	0.0079 U	0.04

Sample Location ¹	Preliminary Screening Level ²		GEI-52			GEI-53	GEI-53		
			GEI-52_0-2	GEI-52_4-6	GEI-52_8-10	GEI-53_0-2	GEI-53_2-4	GEI-53_4-6	GEI-53_8-10
Sample Identification			7/5/2022	7/5/2022	7/4/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022
Sample Date			0-2 ft	4-6 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	8-10 ft
Sample Interval (feet bgs)	Vadose Zone	Saturated Zode	Vadose	Vadose	Saturated	Vadose	Vadose	Vadose	Saturated
Sample Type									
Field Measured Parameters									
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)									
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.095	0.074	0.014 U	0.011	0.051	0.0040 U	0.024
Benzo(a)pyrene			0.14	0.093	0.028 U	0.013	0.070	0.0079 U	0.027
Benzo(b)fluoranthene			0.14	0.094	0.028 U	0.016	0.070	0.0079 U	0.053
Benzo(k)fluoranthene			0.054	0.024	0.028 U	0.0070 U	0.0076 U	0.0079 U	0.013
Chrysene			0.091	0.079	0.028 U	0.011	0.094	0.0079 U	0.029
Dibenzo(a,h)anthracene			0.023	0.011	0.028 U	0.0070 U	0.010	0.0079 U	0.0094 U
Indeno(1,2,3-c,d)pyrene			0.11	0.080	0.028 U	0.013	0.047	0.0079 U	0.031
Total cPAH TEQ ⁴ (ND=0.5RL)	0.19 ⁵	0.01 ⁵	0.183	0.122	0.019 U	0.018	0.089	0.0054 U	0.040

Notes:

¹ Sample locations and summary of remedial investigation results are shown on Figure 3 through 7.

² Preliminary screening levels are from the RI/FS Work Plan (GeoEngineers, 2017).

³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.

⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).

⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.

Table 2
Interim Action Confirmation Soil Analytical Results
 Quiet Cove Property
 Anacortes, Washington

Sample Location ¹	Interim Action Soil Remediation Screening Level ²		VSB-37	VSB-38	VSB-38	VSB-39	VSB-40		VSB-41	VSB-42	VSB-42	VSB-43
			VSB-37-10.75	VSB-38-10.5	VSB-38-11.5	VSB-39-10.5	VSB-40-13.5	VSB-DUP-2	VSB-41-13.5	VSB-42-13.5	VSB-42-14.5	VSB-43-13.5
Sample Identification			10/2/2020	10/13/2020	10/16/2020	10/13/2020	10/13/2020	10/13/2020	10/13/2020	9/21/2020	10/9/2020	9/16/2020
Sample Date			10.75	10.5	11.5	10.5	13.5	13.5	13.5	13.5	14.5	13.5
Sample Depth (feet bgs)	Vadose Zone	Saturated Zone	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated
Sample Type												
Field Measured Parameters												
Sheen	NE	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Headspace Vapors (ppm)	NE	NE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Metals by EPA 6000/7000 Series (mg/kg)												
Arsenic	20	20	11 U	12 U	--	12 U	12 U	11 U	12 U	12 U	--	12 U
Cadmium	1.2	1.0	0.54 U	0.59 U	--	0.60 U	0.58 U	0.57 U	0.58 U	0.58 U	--	0.60 U
Chromium	1,000	50	8.5	60	30	37	26	30	39	110	46	18
Lead	250	24	5.4 U	5.9 U	--	6.0 U	5.8 U	5.7 U	5.8 U	5.8 U	--	6.0 U
Mercury	0.070	0.070	0.054 U	0.064	--	0.060 U	0.058 U	0.057 U	0.058 U	0.058 U	--	0.060 U
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)												
Gasoline range hydrocarbons	30 ³	30 ³	5.0 U	5.9 U	--	6.3 U	5.5 U	6.3 U	5.5 U	5.1 U	--	5.8 U
Diesel-range hydrocarbons	2000	2000	27 U	30 U	--	30 U	29 U	29 U	29 U	29 U	--	30 U
Lube oil-range hydrocarbons	2000	2000	54 U	59 U	--	60 U	58 U	58 U	58 U	58 U	--	60 U
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)												
Benzene	0.050	0.050	0.00099 U	0.0011 U	--	0.00095 U	0.00089 U	0.00092 U	0.0011 U	0.00097 U	--	0.00087 U
Toluene	3.8	0.22	0.0049 U	0.0055 U	--	0.0047 U	0.0045 U	0.0046 U	0.0055 U	0.0049 U	--	0.0044 U
Ethylbenzene	1.1	0.060	0.00099 U	0.0011 U	--	0.00095 U	0.00089 U	0.00092 U	0.0011 U	0.00097 U	--	0.00087 U
Total Xylenes	2.8	0.16	0.0020 U	0.0022 U	--	0.0019 U	0.0018 U	0.0018 U	0.0022 U	0.0019 U	--	0.0017 U
1,2-Dibromoethane (EDB)	0.020	0.0010	0.00049 U	0.00055 U	--	0.00047 U	0.00045 U	0.00046 U	0.00055 U	0.00049 U	--	0.00044 U
1,2-Dichloroethane (EDC)	0.0020	0.0010	0.00049 U	0.00055 U	--	0.00047 U	0.00045 U	0.00046 U	0.00055 U	0.00049 U	--	0.00044 U
Methyl t-butyl ether (MTBE)	2.6	0.18	0.00099 U	0.0011 U	--	0.00095 U	0.00089 U	0.00092 U	0.0011 U	0.00097 U	--	0.00087 U
n-Hexane	0.27	0.010	0.0049 U	0.0055 U	--	0.0047 U	0.0045 U	0.0046 U	0.0055 U	0.0049 U	--	0.0044 U
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)												
1-Methylnaphthalene	34	34	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
2-Methylnaphthalene	0.77	0.040	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Acenaphthene	0.32	0.020	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Acenaphthylene	NE	0.068	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Anthracene	4.4	0.20	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Benzo(g,h,i)perylene	NE	2.0	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Fluoranthene	3.2	0.16	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Fluorene	0.50	0.020	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Naphthalene	0.25	0.013	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Phenanthrene	NE	0.10	0.0036 U	0.0040 U	--	0.0040 U	0.0046	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Pyrene	20	1.0	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U

Sample Location ¹	Interim Action Soil		VSB-37	VSB-38	VSB-38	VSB-39	VSB-40		VSB-41	VSB-42	VSB-42	VSB-43
Sample Identification	Remediation Screening		VSB-37-10.75	VSB-38-10.5	VSB-38-11.5	VSB-39-10.5	VSB-40-13.5	VSB-DUP-2	VSB-41-13.5	VSB-42-13.5	VSB-42-14.5	VSB-43-13.5
Sample Date	Level ²		10/2/2020	10/13/2020	10/16/2020	10/13/2020	10/13/2020	10/13/2020	10/13/2020	9/21/2020	10/9/2020	9/16/2020
Sample Depth (feet bgs)	Vadose	Saturated	10.75	10.5	11.5	10.5	13.5	13.5	13.5	13.5	14.5	13.5
Sample Type	Zone	Zone	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)												
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Benzo(a)pyrene			0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Benzo(b)fluoranthene			0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Benzo(j,k)fluoranthene			0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Chrysene			0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Dibenzo(a,h)anthracene			0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Indeno(1,2,3-c,d)pyrene			0.0036 U	0.0040 U	--	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0039 U	--	0.0040 U
Total cPAH TEQ ⁴ (ND=0.5RL)			0.19 ⁵	0.01 ⁵	0.0027 U	0.0030 U	--	0.0030 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U

Notes:

¹ Sample locations and summary of remedial investigation results are shown on Figure 4 through 7.

² Remediation levels are from the Interim Action Work Plan (GeoEngineers 2020).

³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.

⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).

⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.

Table 2
Interim Action Confirmation Soil Analytical Results
 Quiet Cove Property
 Anacortes, Washington

Sample Location ¹	Interim Action Soil Remediation Screening Level ²		VSB-44	VSB-45	VSB-46	VSS-15	VSS-16	VSS-17	VSS-18		VSS-19	VSS-20
			VSB-44-13.5	VSB-45-13.5	VSB-46-13.5	VSS-15-8.5	VSS-16-8.5	VSS-17-4.25	VSS-18-4.25	VSS-DUP-3	VSS-19-4.25	VSS-20-4.25
Sample Identification			9/16/2020	9/4/2020	9/4/2020	10/12/2020	10/12/2020	10/13/2020	10/21/2020	10/21/2020	10/13/2020	10/13/2020
Sample Date			13.5	13.5	13.5	8.5	8.5	4.25	4.25	4.25	4.25	4.25
Sample Depth (feet bgs)	Vadose Zone	Saturated Zone	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Vadose	Vadose	Vadose	Vadose
Sample Type			Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Vadose	Vadose	Vadose	Vadose
Field Measured Parameters												
Sheen	NE	NE	NS	NS	NS	MS	HS	HS	HS		HS	HS
Headspace Vapors (ppm)	NE	NE	< 1	< 1	< 1	38.2	82.1	89.3	340		455	367
Metals by EPA 6000/7000 Series (mg/kg)												
Arsenic	20	20	12 U	13 U	13 U	11 U	12 U	12 U	12 U	12 U	12 U	13 U
Cadmium	1.2	1.0	0.59 U	0.64 U	0.64 U	0.57 U	0.59 U	0.58 U	0.59 U	0.60 U	0.58 U	0.63 U
Chromium	1,000	50	23	29	33	27	22	13	10	13	27	20 J
Lead	250	24	5.9 U	6.4 U	6.4 U	5.7 U	5.9 U	5.8 U	5.9 U	6.0 U	5.8 U	19 J
Mercury	0.070	0.070	0.059 U	0.064 U	0.064 U	0.057 U	0.059 U	0.058 U	0.059 U	0.060 U	0.058 U	0.072
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)												
Gasoline range hydrocarbons	30 ³	30 ³	5.8 U	6.3 U	6.3 U	5.4 U	6.7 U	6.7 U	790 J	2,300 J	230 U	970 J
Diesel-range hydrocarbons	2000	2000	30 U	32 U	32 U	29 U	30 U	29 U	11,000	14,000	640	6,500
Lube oil-range hydrocarbons	2000	2000	59 U	64 U	64 U	57 U	59 U	61	3,300 J	4,400 J	190 J	9,400
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)												
Benzene	0.050	0.050	0.00085 U	0.0011 U	0.0010 U	0.00085 U	0.00098 U	0.0042	0.078 U	0.081 U	0.00091 U	0.069 U
Toluene	3.8	0.22	0.0043 U	0.0055 U	0.0052 U	0.0043 U	0.0049 U	0.0086	0.39 U	0.41 U	0.0045 U	0.34 U
Ethylbenzene	1.1	0.060	0.00085 U	0.0011 U	0.0010 U	0.00085 U	0.00098 U	0.0010 U	0.078 U	0.081 U	0.00091 U	0.069 U
Total Xylenes	2.8	0.16	0.0017 U	0.0022 U	0.0021 U	0.0017 U	0.0020 U	0.0086	0.3	0.26	0.014 U	0.14 U
1,2-Dibromoethane (EDB)	0.020	0.0010	0.00043 U	0.00055 U	0.00052 U	0.00043 U	0.00049 U	0.00051 U	0.039 U	0.041 U	0.00045 U	0.034 U
1,2-Dichloroethane (EDC)	0.0020	0.0010	0.00043 U	0.00055 U	0.00052 U	0.00043 U	0.00049 U	0.00051 U	0.039 U	0.041 U	0.00045 U	0.034 U
Methyl t-butyl ether (MTBE)	2.6	0.18	0.00085 U	0.0011 U	0.0010 U	0.00085 U	0.00098 U	0.0010 U	0.078 U	0.081 U	0.00091 U	0.069 U
n-Hexane	0.27	0.010	0.0043 U	0.0055 U	0.0052 U	0.0043 U	0.0049 U	0.0051 U	0.39 U	0.41 U	0.0045 U	0.34 U
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)												
1-Methylnaphthalene	34	34	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.013	1.0 J	3.7 J	0.012 U	7.1 J
2-Methylnaphthalene	0.77	0.040	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.038	0.71	0.8	0.023 U	3.4 J
Acenaphthene	0.32	0.020	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	1.2	1.7	0.0055 U	0.31 J
Acenaphthylene	NE	0.068	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.14	0.17	0.013 U	0.21
Anthracene	4.4	0.20	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.36	0.46	0.0091	0.21 J
Benzo(g,h,i)perylene	NE	2.0	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.079 U	0.080 U	0.0041	0.092
Fluoranthene	3.2	0.16	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.13	0.14	0.025	0.28 J
Fluorene	0.50	0.020	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	2.3	3.3	0.032	1.6 J
Naphthalene	0.25	0.013	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.025	0.98	1.2	0.0084 U	0.54 J
Phenanthrene	NE	0.10	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	1.1 J	1.9 J	0.016	3.0 J
Pyrene	20	1.0	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.18	0.2	0.028	0.60 J

Sample Location ¹	Interim Action Soil		VSB-44	VSB-45	VSB-46	VSS-15	VSS-16	VSS-17	VSS-18		VSS-19	VSS-20
Sample Identification	Remediation Screening		VSB-44-13.5	VSB-45-13.5	VSB-46-13.5	VSS-15-8.5	VSS-16-8.5	VSS-17-4.25	VSS-18-4.25	VSS-DUP-3	VSS-19-4.25	VSS-20-4.25
Sample Date	Level ²		9/16/2020	9/4/2020	9/4/2020	10/12/2020	10/12/2020	10/13/2020	10/21/2020	10/21/2020	10/13/2020	10/13/2020
Sample Depth (feet bgs)	Vadose	Saturated	13.5	13.5	13.5	8.5	8.5	4.25	4.25	4.25	4.25	4.25
Sample Type	Zone	Zone	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Vadose	Vadose	Vadose	Vadose
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)												
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.079 U	0.080 U	0.008	0.13
Benzo(a)pyrene			0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.079 U	0.080 U	0.0069	0.099
Benzo(b)fluoranthene			0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.079 U	0.080 U	0.0073	0.13
Benzo(j,k)fluoranthene			0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.079 U	0.080 U	0.0039 U	0.084 U
Chrysene			0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.19	0.21	0.012	0.51 J
Dibenzo(a,h)anthracene			0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.079 U	0.080 U	0.0039 U	0.084 U
Indeno(1,2,3-c,d)pyrene			0.0039 U	0.0042 U	0.0043 U	0.0038 U	0.0040 U	0.0038 U	0.079 U	0.080 U	0.0039 U	0.084 U
Total cPAH TEQ ⁴ (ND=0.5RL)			0.19 ⁵	0.01 ⁵	0.0029 U	0.0032 U	0.0032 U	0.0029 U	0.0030 U	0.0029 U	0.061	0.062

Notes:

¹ Sample locations and summary of remedial investigation results are shown on Figure 4 through 7.

² Remediation levels are from the Interim Action Work Plan (GeoEngineers 2020).

³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.

⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).

⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.

Table 2
Interim Action Confirmation Soil Analytical Results
 Quiet Cove Property
 Anacortes, Washington

Sample Location ¹	Interim Action Soil Remediation Screening Level ²		VSS-20	VSS-21	VSS-22	VSS-23	VSS-24	VSS-25	VSS-26	VSS-27
Sample Identification			VSS-DUP-1	VSS-21-4.25	VSS-22-4.25	VSS-23-4.25	VSS-24-4.25	VSS-25-4.25	VSS-26-4.25	VSS-27-4.25
Sample Date			10/13/2020	10/13/2020	9/16/2020	9/16/2020	9/16/2020	9/4/2020	9/4/2020	9/4/2020
Sample Depth (feet bgs)	Vadose Zone	Saturated Zone	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Sample Type			Vadose	Vadose	Vadose	Vadose	Vadose	Vadose	Vadose	Vadose
Field Measured Parameters										
Sheen	NE	NE	HS	HS	MS	HS	HS	HS	HS	MS
Headspace Vapors (ppm)	NE	NE	367	531	84.3	245	402	198.1	479.9	3.4
Metals by EPA 6000/7000 Series (mg/kg)										
Arsenic	20	20	18 U	12 U	15 U	12 U	20 U	18 U	12 U	12 U
Cadmium	1.2	1.0	0.89 U	0.61 U	0.77 U	0.29 U	0.49 U	0.92 U	0.60 U	0.58 U
Chromium	1,000	50	38 J	18	21	29	20	45	33	31
Lead	250	24	37 J	11	15 U	8.6	9.8 U	32	9	5.8 U
Mercury	0.070	0.070	0.12	0.061 U	0.1	0.045	0.053	0.064 U	0.060 U	0.058 U
Petroleum Hydrocarbons by NWTPH-G/Dx (mg/kg)										
Gasoline range hydrocarbons	30 ³	30 ³	980 J	160 J	29 U	280 U	160 U	320 U	200 J	5.7 U
Diesel-range hydrocarbons	2000	2000	7,800	1,500	100 J	230	100	160	88	29 U
Lube oil-range hydrocarbons	2000	2000	12,000	2,500	440	250	150	240	120	58 U
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)										
Benzene	0.050	0.050	0.14 U	0.071 U	0.0042 U	0.00097 U	0.0026 U	0.0024 U	0.00099 U	0.0010 U
Toluene	3.8	0.22	0.69 U	0.36 U	0.021 U	0.0048 U	0.013 U	0.012 U	0.0050 U	0.0050 U
Ethylbenzene	1.1	0.060	0.14 U	0.071 U	0.0042 U	0.00097 U	0.0026 U	0.0024 U	0.0011 U	0.0010 U
Total Xylenes	2.8	0.16	0.28 U	0.14 U	0.0085 U	0.0019 U	0.0038	0.0089	0.013 U	0.0020 U
1,2-Dibromoethane (EDB)	0.020	0.0010	0.069 U	0.036 U	0.0021 U	0.00048 U	0.0013 U	0.0012 U	0.00050 U	0.00050 U
1,2-Dichloroethane (EDC)	0.0020	0.0010	0.069 U	0.036 U	0.0021 U	0.00048 U	0.0013 U	0.0012 U	0.00050 U	0.00050 U
Methyl t-butyl ether (MTBE)	2.6	0.18	0.14 U	0.071 U	0.0042 U	0.00097 U	0.0026 U	0.0024 U	0.00099 U	0.0010 U
n-Hexane	0.27	0.010	0.69 U	0.36 U	0.021 U	0.0048 U	0.013 U	0.012 U	0.0050 U	0.0050 U
Non-Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270-SIM (mg/kg)										
1-Methylnaphthalene	34	34	3.4 J	1.9	0.010 U	0.28	0.25	1.2	0.091	0.0039 U
2-Methylnaphthalene	0.77	0.040	2.0 J	0.62	0.010 U	0.48	0.19	1.8	0.11	0.0039 U
Acenaphthene	0.32	0.020	0.10 J	0.19	0.010 U	0.046	0.016	0.096	0.014	0.0039 U
Acenaphthylene	NE	0.068	0.098	0.13	0.010 U	0.023	0.0091	0.078	0.022	0.0039 U
Anthracene	4.4	0.20	0.073 J	0.28	0.010 U	0.048	0.0099	0.096	0.12	0.0039 U
Benzo(g,h,i)perylene	NE	2.0	0.059 U	0.12	0.019	0.019	0.012	0.097	0.21	0.0039 U
Fluoranthene	3.2	0.16	0.13 J	0.35	0.012	0.1	0.033	0.4	0.38	0.0039 U
Fluorene	0.50	0.020	0.66 J	0.74	0.010 U	0.13	0.042	0.21	0.039	0.0039 U
Naphthalene	0.25	0.013	0.24 J	0.17	0.010 U	0.24	0.073	0.61	0.15	0.0039 U
Phenanthrene	NE	0.10	1.2 J	1.8	0.010 U	0.24	0.053	0.49	0.29	0.0039 U
Pyrene	20	1.0	0.18 J	0.55	0.014	0.16	0.054	0.45	0.5	0.0039 U

Sample Location ¹	Interim Action Soil		VSS-20	VSS-21	VSS-22	VSS-23	VSS-24	VSS-25	VSS-26	VSS-27
Sample Identification	Remediation Screening		VSS-DUP-1	VSS-21-4.25	VSS-22-4.25	VSS-23-4.25	VSS-24-4.25	VSS-25-4.25	VSS-26-4.25	VSS-27-4.25
Sample Date	Level ²		10/13/2020	10/13/2020	9/16/2020	9/16/2020	9/16/2020	9/4/2020	9/4/2020	9/4/2020
Sample Depth (feet bgs)	Vadose	Saturated	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Sample Type	Zone	Zone	Vadose	Vadose	Vadose	Vadose	Vadose	Vadose	Vadose	Vadose
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) by EPA 8270-SIM (mg/kg)										
Benzo(a)anthracene	See Total cPAH TEQ	See Total cPAH TEQ	0.059 U	0.19	0.0070 U	0.042	0.013	0.15	0.23	0.0039 U
Benzo(a)pyrene			0.059 U	0.2	0.010 U	0.031	0.015	0.14	0.3	0.0039 U
Benzo(b)fluoranthene			0.061	0.21	0.010 U	0.028	0.015	0.15	0.35	0.0039 U
Benzo(j,k)fluoranthene			0.059 U	0.043	0.010 U	0.0079	0.0065 U	0.044	0.073	0.0039 U
Chrysene			0.20 J	0.34	0.010 U	0.064	0.014	0.17	0.21	0.0039 U
Dibenzo(a,h)anthracene			0.059 U	0.041 U	0.010 U	0.004	0.0065 U	0.018	0.022	0.0039 U
Indeno(1,2,3-c,d)pyrene			0.059 U	0.11	0.010 U	0.016	0.0093	0.1	0.21	0.0039 U
Total cPAH TEQ ⁴ (ND=0.5RL)			0.19 ⁵	0.01 ⁵	0.049	0.26	0.0074 U	0.041	0.02	0.19

Notes:

¹ Sample locations and summary of remedial investigation results are shown on Figure 4 through 7.

² Remediation levels are from the Interim Action Work Plan (GeoEngineers 2020).

³ Value for gasoline-range petroleum hydrocarbons if benzene is present. If benzene is not present, screening level is 100 mg/kg.

⁴ Total cPAH Toxic Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) values referenced from MTCA Table 708.2 (WAC 173-340-900).

⁵ Value for vadose and saturated soil based on Ecology's Revised July 2021 cPAH guidance for protection of surface water.

ppm = parts per million

mg/kg = milligrams per kilogram

-- = not analyzed

NE = Not Established

ND = Not Detected

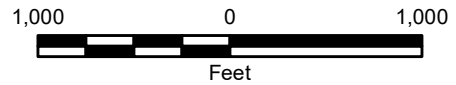
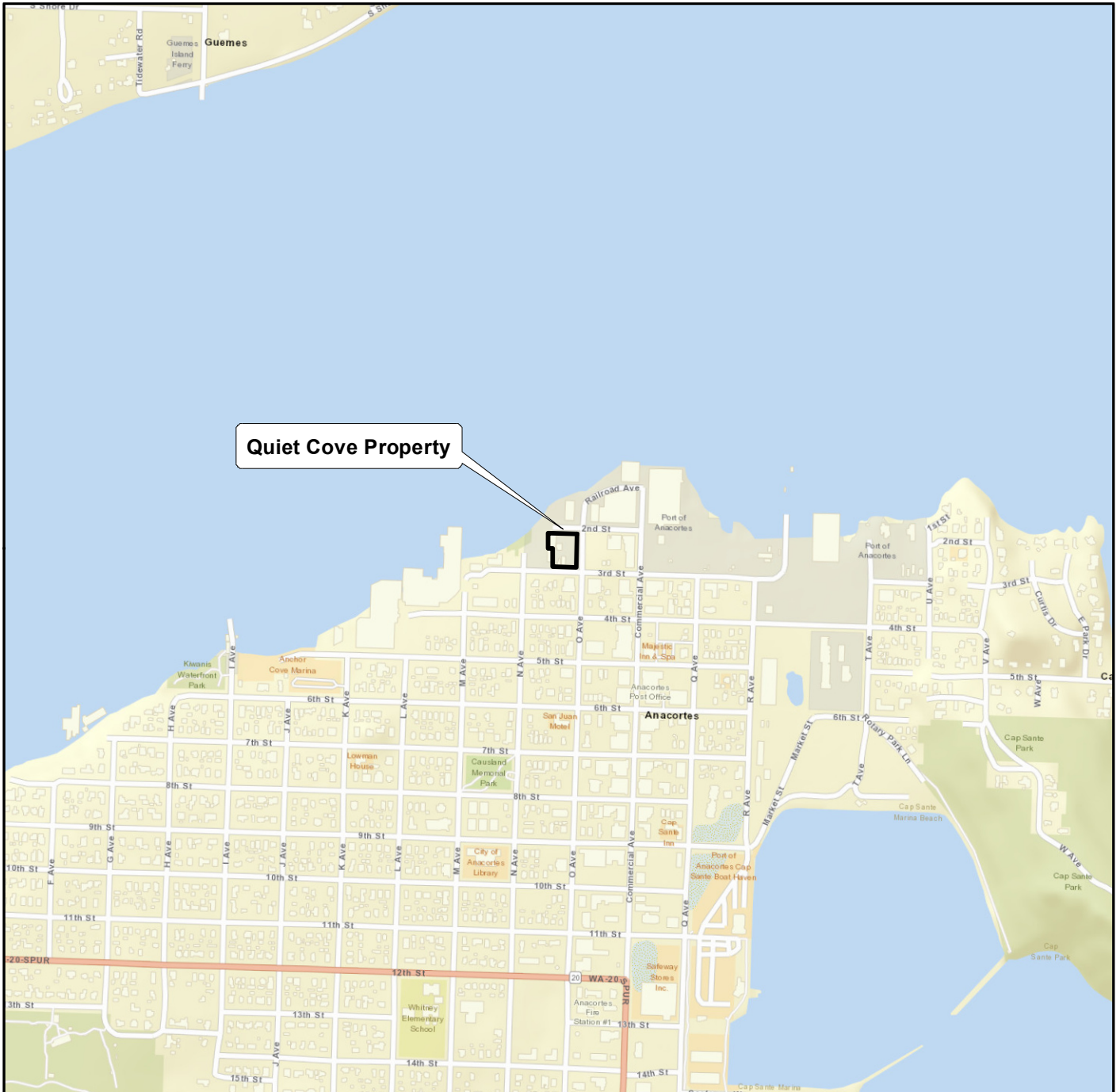
U = The analyte was not detected at a concentration greater than the value identified.

J = The analyte was detected and the detected concentration is considered an estimate.

Blue shading indicates that the practical quantitation limit (PQL) is above screening level.

Yellow shading indicates that the identified concentration is greater than the preliminary screening level.

Bold font type indicates the analyte was detected at the reported concentration.



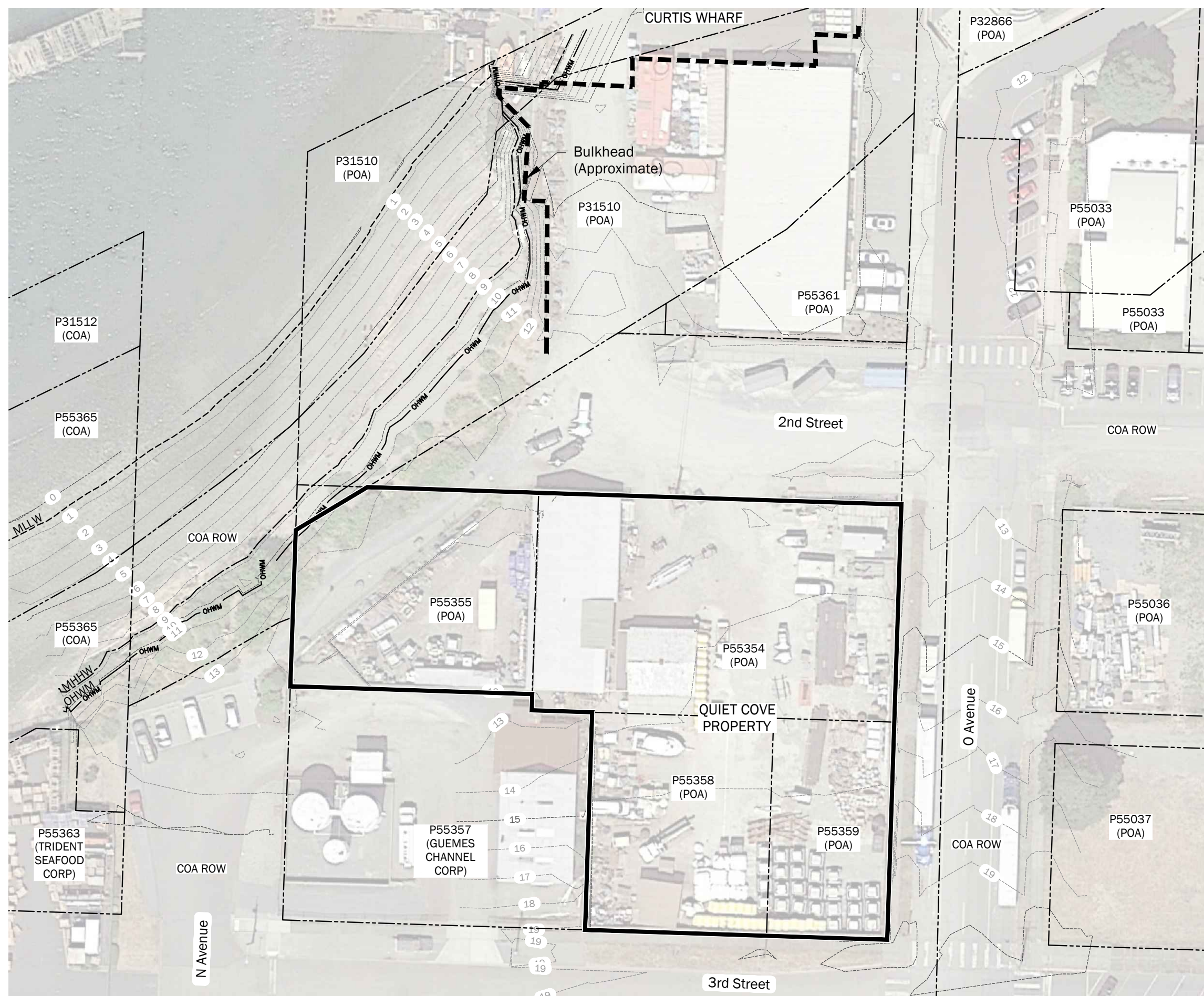
Notes:

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Data Sources: ESRI Data & Maps, Street Data 2013.
 Transverse Mercator, Zone 10 N North, North American Datum 1983
 North arrow oriented to grid north

Vicinity Map	
Quiet Cove Site Anacortes, Washington	
	Figure 1

\\geoengineers.com\WAN\Projects\5147024\CAD\13_2nd Street Soil Investigation Data Report\514702413_F02_Site Plan.dwg TAB:F02 Date Exported: 08/04/22 - 11:57 by hmara



Legend

- Port of Anacortes Properties at Quiet Cove Site
- Parcel Boundary from Skagit County Records
- 10 Contour (Feet, NAVD 88)
- Mean Lower Low Water (MLLW) Line (0.66 Feet NAVD 88)
- Mean Higher High Water (MHHW) Line (8.86 Feet NAVD 88)
- Approximate Ordinary High Water Mark (OHWM) Line (10.36 Feet NAVD 88)
- P55365 (COA) Parcel Number (Owner)
- POA = Port of Anacortes
- COA = City of Anacortes
- ROW = Right-of-Way

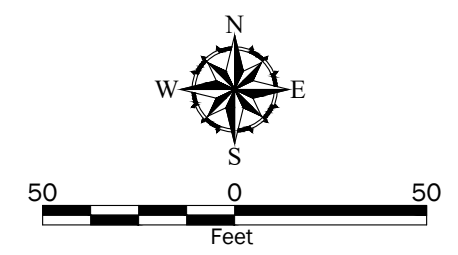
Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base survey by Sound Development Group on 10/11/2017. Imagery from Google Earth Pro dated 7/15/2018.

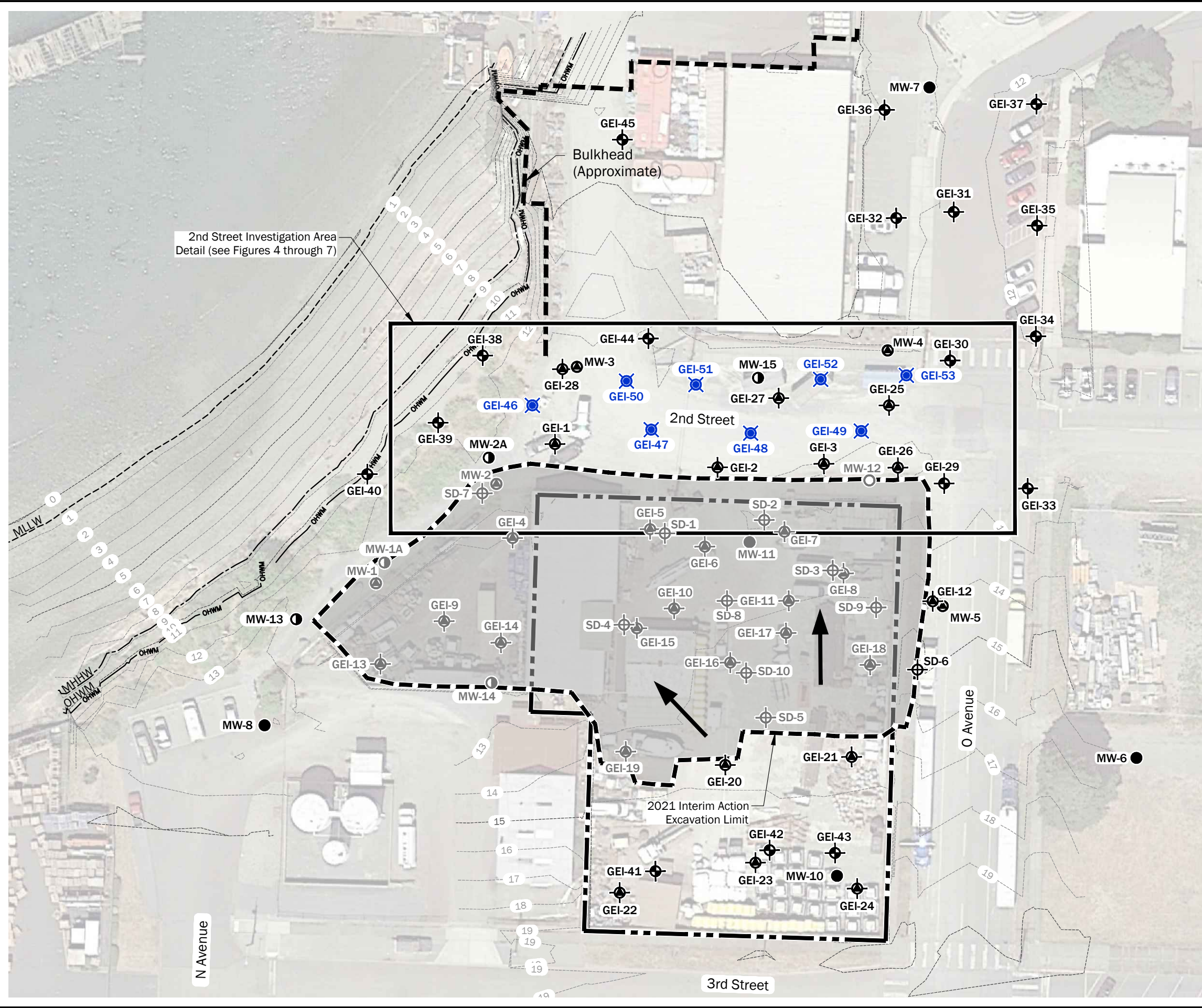
Projection: Horizontal Datum: NAD83 WA State Planes, North Zone, US Foot

Vertical Datum: North American Vertical Datum, 1988, US Foot



Current Property Layout	
Quiet Cove Anacortes, Washington	
	Figure 2

P:\5147024\CAD\13\2nd Street Soil Investigation Data Report\514702413_F03_RI Sample Locations with 2020 Interim Action Area.dwg TAB:F03 Date Exported: 08/17/22 - 14:16 by hmara

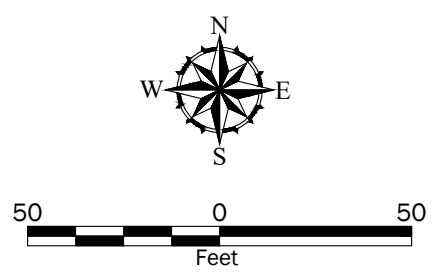


Legend

- Quiet Cove Property Boundary
- 2020 Interim Action Area
- 10 Contour (Feet, NAVD 88)
- GEI-49 Soil Boring (GeoEngineers 2022)
- MW-13 Monitoring Well (GeoEngineers 2021)
- SD-6 Soil Boring (GeoEngineers 2018)
- MW-2A Monitoring Well (GeoEngineers 2018)
- GEI-31 Soil Boring (GeoEngineers 2017)
- MW-6 Monitoring Well (GeoEngineers 2017)
- GEI-1 Soil Boring (GeoEngineers 2014)
- MW-1 Monitoring Well (GeoEngineers 2014)
- Inferred Groundwater Flow Direction

- Notes:**
1. Gray location identification and symbol denotes previous soil sampling location and/or monitoring well removed/decommissioned in conjunction with the 2020 Interim Action.
 2. The locations of all features shown are approximate.
 3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base Aerial taken by David C. Smith & Associates, Inc. on 6/17/2009. Base survey by Sound Development Group on 10-11-2017
 Projection: NAD83 WA State Planes, North Zone, US Foot

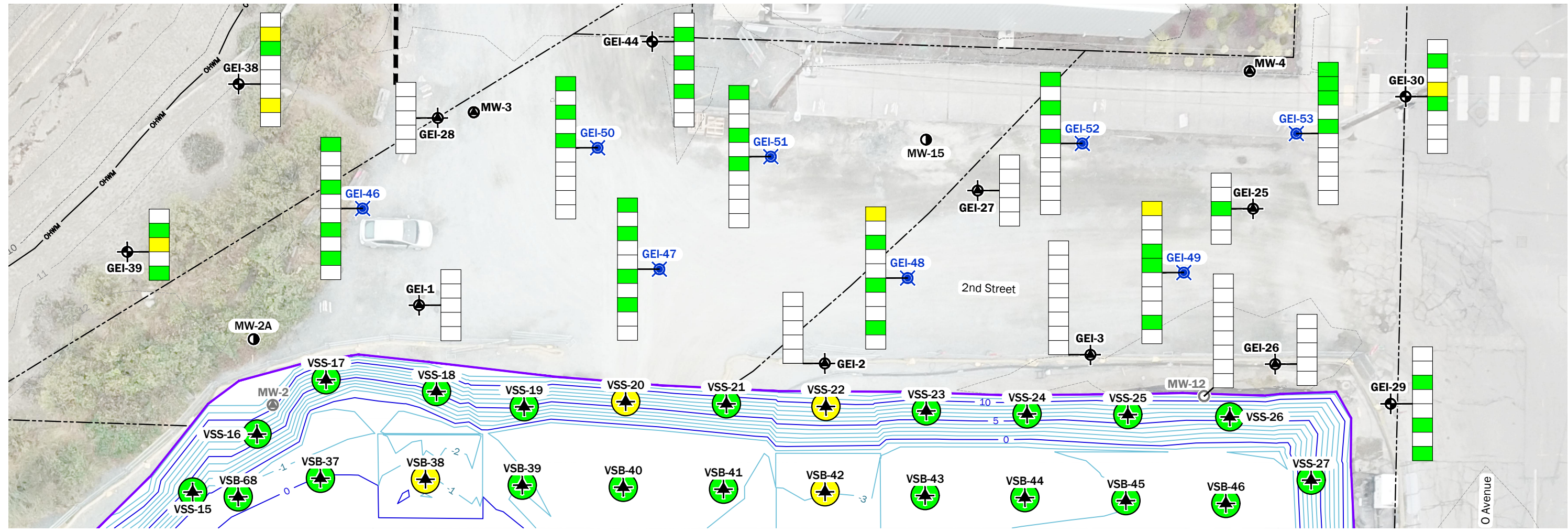


Remedial Investigation Sampling Locations and 2020 Interim Action Area

Quiet Cove
Anacortes, Washington

Figure 3

P:\5147024\CAD\13\2nd Street Soil Investigation Data Report\514702413_F04_Metals Soil Results.dwg TAB:F04 Date Exported: 08/17/22 - 14:14 by hmara



Notes:

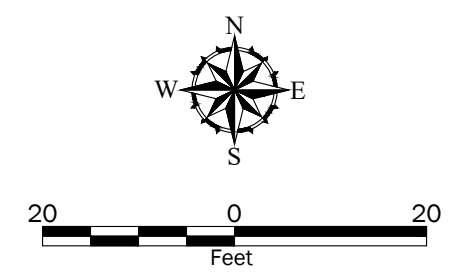
1. Gray location identification and symbol denotes previous soil sampling location and/or monitoring well removed/decommissioned in conjunction with the 2020 Interim Action.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base Survey outside of excavation limit by Sound Development Group on 10/11/2017.
 As-Built excavation survey by Larry Steele & Associate, Inc. dated 11/2/2020.
 Imagery from GeoEngineers dated 9/16/2020.

Projection: NAD83 WA State Planes, North Zone, US Foot

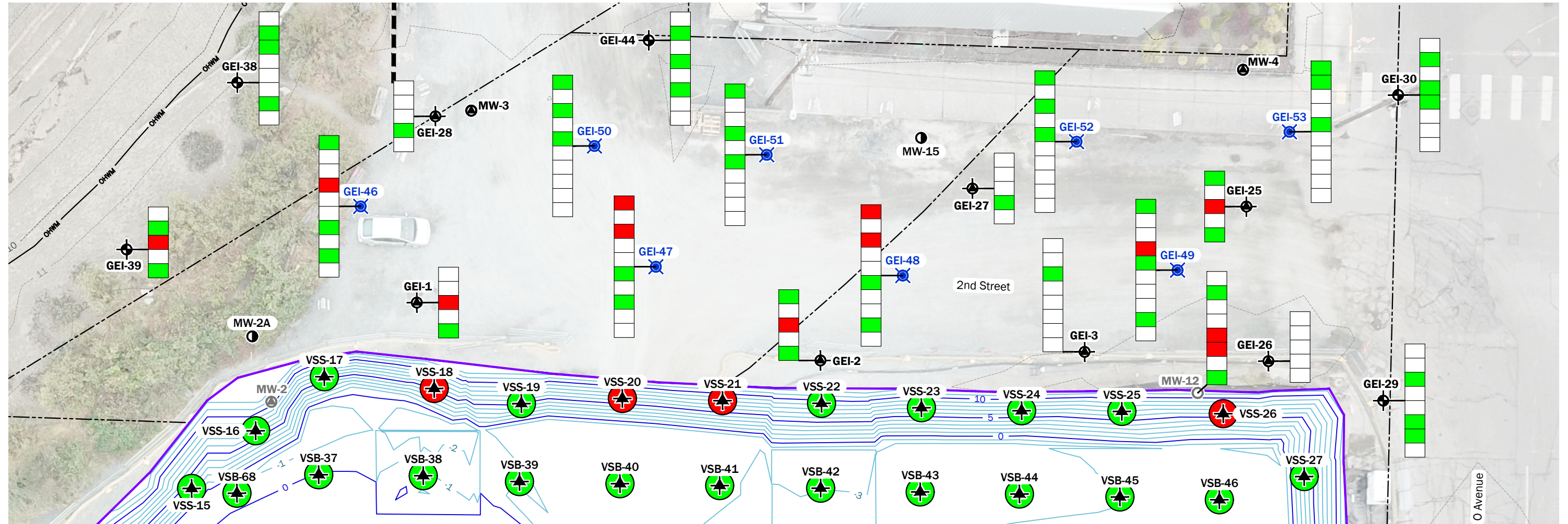
- Legend**
- Parcel Boundary from Skagit County Records
 - 10 ----- Contour (Feet, NAVD 88)
 - 2020 Interim Action Excavation Limit
 - 5 Excavation Major Contours (ft NAD83)
 - 4 Excavation Minor Contours (ft NAD83)
 - GEI-49 Soil Boring (GeoEngineers 2022)
 - MW-13 Monitoring Well (GeoEngineers 2021)
 - VSS-15 Interim Action Confirmation Sample (GeoEngineers 2020)
 - MW-12 Monitoring Well (GeoEngineers 2018)
 - GEI-31 Soil Boring (GeoEngineers 2017)
 - GEI-1 Soil Boring (GeoEngineers 2014)
 - MW-1 Monitoring Well (GeoEngineers 2014)

- Depth Interval of Soil Boring Samples**
- Soil Boring - Each box represents a 2-foot sample interval (feet below ground surface)
- 2020 Interim Action Analytical Result**
- Discrete Interim Action Confirmation Sample
- Soil Chemical Analytical Result**
- One or More Contaminants Detected Greater than the Preliminary Screening Level (PSL)
 - Contaminants Either Not Detected or Detected Less than the PSL
 - No Soil Data



Metals Soil Analytical Results	
Quiet Cove Anacortes, Washington	
GEOENGINEERS	Figure 4

P:\5147024\CAD\13\2nd Street Soil Investigation Data Report\514702413_F05_TPH Soil Results.dwg TAB:F05 Date Exported: 08/17/22 - 14:26 by hmara



Notes:

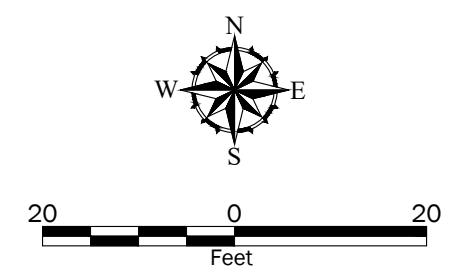
1. Gray location identification and symbol denotes previous soil sampling location and/or monitoring well removed/decommissioned in conjunction with the 2020 Interim Action.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base Survey outside of excavation limit by Sound Development Group on 10/11/2017.
 As-Built excavation survey by Larry Steele & Associate, Inc. dated 11/2/2020.
 Imagery from GeoEngineers dated 9/16/2020.

Projection: NAD83 WA State Planes, North Zone, US Foot

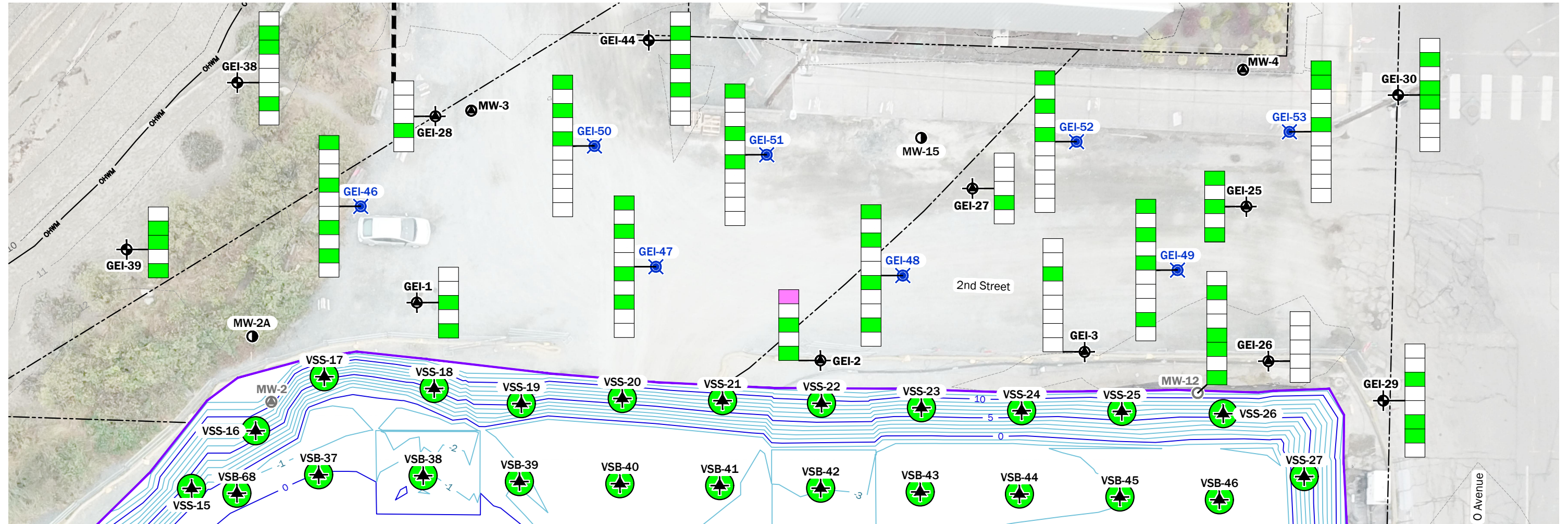
- Legend**
- Parcel Boundary from Skagit County Records
 - Contour (Feet, NAVD 88)
 - 2020 Interim Action Excavation Limit
 - Excavation Major Contours (ft NAD83)
 - Excavation Minor Contours (ft NAD83)
 - Soil Boring (GeoEngineers 2022)
 - Monitoring Well (GeoEngineers 2021)
 - Interim Action Confirmation Sample (GeoEngineers 2020)
 - Monitoring Well (GeoEngineers 2018)
 - Soil Boring (GeoEngineers 2017)
 - Soil Boring (GeoEngineers 2014)
 - Monitoring Well (GeoEngineers 2014)

- Depth Interval of Soil Boring Samples**
- Soil Boring - Each box represents a 2-foot sample interval (feet below ground surface)
- 2020 Interim Action Analytical Result**
- Discrete Interim Action Confirmation Sample
- Soil Chemical Analytical Result**
- One or More Contaminants Detected Greater than the Preliminary Screening Level (PSL)
 - Contaminants Either Not Detected or Detected Less than the PSL
 - No Soil Data



TPH Soil Analytical Results	
Quiet Cove Anacortes, Washington	
	Figure 5

P:\5147024\CAD\13\2nd Street Soil Investigation Data Report\514702413_F06_VOCs Soil Results.dwg TAB:F06 Date Exported: 08/17/22 - 14:19 by hmara



Notes:

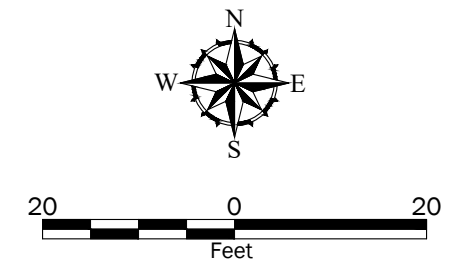
1. Gray location identification and symbol denotes previous soil sampling location and/or monitoring well removed/decommissioned in conjunction with the 2020 Interim Action.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base Survey outside of excavation limit by Sound Development Group on 10/11/2017.
 As-Built excavation survey by Larry Steele & Associate, Inc. dated 11/2/2020.
 Imagery from GeoEngineers dated 9/16/2020.

Projection: NAD83 WA State Planes, North Zone, US Foot

- Legend**
- Parcel Boundary from Skagit County Records
 - Contour (Feet, NAVD 88)
 - 2020 Interim Action Excavation Limit
 - Excavation Major Contours (ft NAD83)
 - Excavation Minor Contours (ft NAD83)
 - Soil Boring (GeoEngineers 2022)
 - Monitoring Well (GeoEngineers 2021)
 - Interim Action Confirmation Sample (GeoEngineers 2020)
 - Monitoring Well (GeoEngineers 2018)
 - Soil Boring (GeoEngineers 2017)
 - Soil Boring (GeoEngineers 2014)
 - Monitoring Well (GeoEngineers 2014)

- Depth Interval of Soil Boring Samples**
- Soil Boring - Each box represents a 2-foot sample interval (feet below ground surface)
- 2020 Interim Action Analytical Result**
- Discrete Interim Action Confirmation Sample
- Soil Chemical Analytical Result**
- One or More Contaminants Detected Greater than the Preliminary Screening Level (PSL)
 - Contaminants Either Not Detected or Detected Less than the PSL
 - No Soil Data



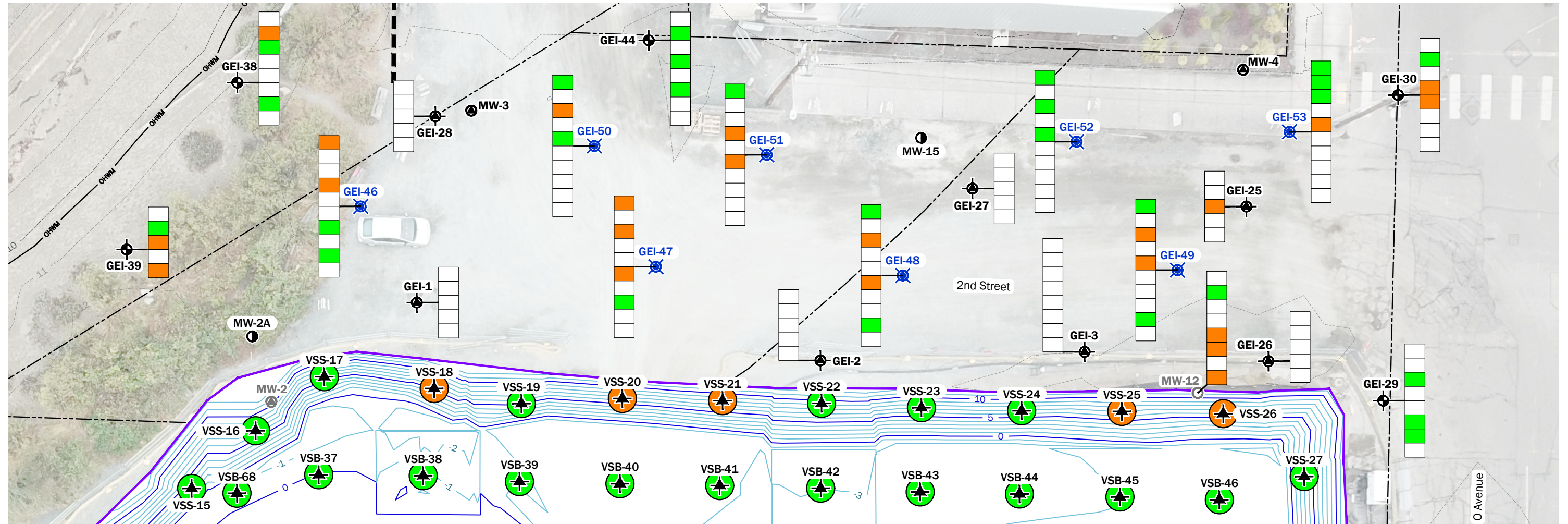
VOCs Soil Analytical Results

Quiet Cove
Anacortes, Washington

GEOENGINEERS

Figure 6

P:\5147024\CAD\13\2nd Street Soil Investigation Data Report\514702413_F07_PAHs Soil Results.dwg TAB:F07 Date Exported: 08/17/22 - 14:23 by hmara



Notes:

1. Gray location identification and symbol denotes previous soil sampling location and/or monitoring well removed/decommissioned in conjunction with the 2020 Interim Action.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

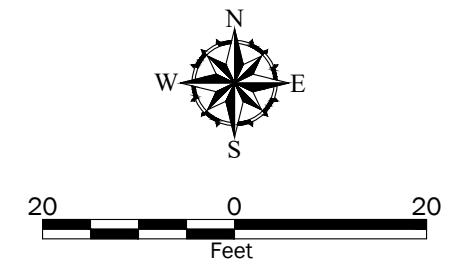
Data Source: Base Survey outside of excavation limit by Sound Development Group on 10/11/2017.

As-Built excavation survey by Larry Steele & Associate, Inc. dated 11/2/2020. Imagery from GeoEngineers dated 9/16/2020.

Projection: NAD83 WA State Planes, North Zone, US Foot

- Legend**
- Parcel Boundary from Skagit County Records
 - Contour (Feet, NAVD 88)
 - 2020 Interim Action Excavation Limit
 - Excavation Major Contours (ft NAD83)
 - Excavation Minor Contours (ft NAD83)
 - Soil Boring (GeoEngineers 2022)
 - Monitoring Well (GeoEngineers 2021)
 - Interim Action Confirmation Sample (GeoEngineers 2020)
 - Monitoring Well (GeoEngineers 2018)
 - Soil Boring (GeoEngineers 2017)
 - Soil Boring (GeoEngineers 2014)
 - Monitoring Well (GeoEngineers 2014)

- Depth Interval of Soil Boring Samples**
- Soil Boring - Each box represents a 2-foot sample interval (feet below ground surface)
- 2020 Interim Action Analytical Result**
- Discrete Interim Action Confirmation Sample
- Soil Chemical Analytical Result**
- One or More Contaminants Detected Greater than the Preliminary Screening Level (PSL)
 - Contaminants Either Not Detected or Detected Less than the PSL
 - No Soil Data



PAHs Soil Analytical Results	
Quiet Cove Anacortes, Washington	
	Figure 7

ATTACHMENT 1
Soil Exploration Logs

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS <small>(LITTLE OR NO FINES)</small>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		SW	WELL-GRADED SANDS, GRAVELLY SANDS
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SP	POORLY-GRADED SANDS, GRAVELLY SAND
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SM	SILTY SANDS, SAND - SILT MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
		LIQUID LIMIT LESS THAN 50		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
		LIQUID LIMIT LESS THAN 50		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
		LIQUID LIMIT GREATER THAN 50		CH	INORGANIC CLAYS OF HIGH PLASTICITY
		LIQUID LIMIT GREATER THAN 50		OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

Sampler Symbol Descriptions

	2.4-inch I.D. split barrel / Dames & Moore (D&M)
	Standard Penetration Test (SPT)
	Shelby tube
	Piston
	Direct-Push
	Bulk or grab
	Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact



Measured groundwater level in exploration, well, or piezometer



Measured free product in well or piezometer

Graphic Log Contact



Distinct contact between soil strata



Approximate contact between soil strata

Material Description Contact



Contact between geologic units



Contact between soil of the same geologic unit

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PL	Point lead test
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
UU	Unconsolidated undrained triaxial compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

Key to Exploration Logs

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)			System Datum		Groundwater not observed at time of exploration					
Notes:										

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
0		31			GEI-46_0-2	CR	Gravel surface				
						SM	Gray silty fine to coarse sand with gravel	SS	3.6		
					GEI-46_2-4	SM	Light brown silty fine to medium sand with organic matter	SS	6.2		
					GEI-46_4-6	SM	Dark brown silty fine to medium sand	HS	148.1		
5		57			GEI-46_6-8	SM	Light brown silty fine to coarse sand with trace organic matter	HS	467.1		
					GEI-46_8-10			HS	69.7		
					GEI-46_10-12	SM	Gray silty fine to coarse sand with trace gravel (dense, moist) Becomes wet	HS	332.9		
					GEI-46_12-14			SS	28.4		
					GEI-46_14-16	SM	Dark brown silty fine to coarse sand with occasional gravel (medium dense, wet)	SS	14.1		
15		60			GEI-46_16-18			NS	1.8		
						ML	Gray silt with sand and trace gravel (medium stiff to stiff, very dense)				
						ML	Gray silt (very dense, moist)				
20											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-46



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)					System Datum		Groundwater not observed at time of exploration			
Notes:										

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
0		32			GEI-47_0-2	CR	Gravel surface				
						SM	Gray silty gravel with sand (very dense, dry)	NS	96.3		
					GEI-47_2-4			SS	370.8		
						ML	Gray silt with sand (dense, moist)				
					GEI-47_4-6						
						SM	Dark brown silty fine to coarse sand with trace gravel (medium dense, moist)	HS	489.3		
5		40			GEI-47_6-8	SM	Brown silty fine to medium sand with organic matter (medium dense, moist to wet)	OS	25.6		
					GEI-47_8-10	SM	Brown silty fine to coarse sand with trace sand (medium dense, moist to wet)	OS	21.5		
10		45			GEI-47_10-12	SM	Becomes wet	NS	23.8		
					GEI-47_12-14			NS	8.7		
					GEI-47_14-16			NS	4.2		
15		55			GEI-47_16-18	ML	Gray silt with sand and gravel				
								NS	3.3		
20											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-47



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)			System Datum		Groundwater not observed at time of exploration					
Notes:										

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
0		37			GEI-48_0-2	CR	Gravel surface				
						SM	Dark brown silty fine to coarse sand with gravel (dense, dry)	SS	11.0		
					GEI-48_2-4			HS	141.5		
					GEI-48_4-6			HS	135.2		
5		40			GEI-48_6-8	SM	Gray silty fine to medium sand (moist to wet)	HS	398.2		
					GEI-48_8-10	WD	Wood debris (soft, moist)	OS	12.8		
						PT	Peat				
10		45			GEI-48_10-12	SM	Brown silty fine to coarse sand with organic matter (medium dense, wet)	NS	15.1		
					GEI-48_12-14			NS	<1		
					GEI-48_14-16	SM	Gray silty fine to coarse sand with gravel (dense, wet)	NS	10.4		
15		60			GEI-48_16-18	ML	Gray silt with sand (very dense, moist)	NS	2.1		
						ML	Gray-brown silt with sand (very dense, moist)				
20											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-48



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)			System Datum		Groundwater not observed at time of exploration					
Notes:										

Elevation (feet)	FIELD DATA					Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					
0		29			GEI-49_0-2	CR	Gravel surface			
						SM	Gray silty fine to coarse sand with gravel (dense, moist)	SS	20.6	
					GEI-49_2-4		Oxy layering	MS	330	
						SM	Gray silty fine to coarse sand (dense, moist)			
					GEI-49_4-6	SM	Gray silty fine to coarse sand with gravel (dense, moist)	HS	425	
5		44				SM	Brown silty fine to coarse sand with gravel (medium dense, moist to wet)			
					GEI-49_6-8	SM	Gray silty fine to coarse sand (dense, moist to wet)	MS	44.1	
						SM	Brown silty fine to coarse sand with gravel (dense, moist)			
						SM	Gray silty fine to coarse sand with trace gravel (dense, moist)			
					GEI-49_8-10	PT	Peat (very soft, moist)	OS	8.2	
10		60				SM	Brown silty fine to coarse sand with gravel (medium dense, moist)	SS	<1	
					GEI-49_12-14			SS	1.8	
						SM	Gray silty fine to coarse sand with occasional gravel (dense, wet)	NS	1.1	
15		60				ML	Brown silt with sand and trace gravel	NS	<1	
					GEI-49_16-18					

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-49



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)					System Datum		Groundwater not observed at time of exploration			
Notes:										

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
0		24			GEI-50_0-2	CR	Gravel surface				
						SM	Light gray silty fine to coarse sand with gravel (very dense, dry)	NS	49		
					GEI-50_2-4					SS	1.6
					GEI-50_4-6					SS/MS	3.6
5		60			GEI-50_6-8	SM	Brown silty fine to coarse sand with gravel (very dense, dry)				
					GEI-50_8-10	SM	Brown-orange silty fine to medium sand (medium dense, moist)				
					GEI-50_10-12	SM	Brown-orange silty fine to coarse sand with occasional gravel (medium dense, moist to wet)	SS	1.6		
					GEI-50_12-14	SM	Dark gray silty fine to coarse sand with trace gravel (medium dense, moist to wet)	NS	3.0		
10		60			GEI-50_14-16	SM	Light gray to gray silty fine to coarse sand (medium dense, moist to wet)				
					GEI-50_16-18	SM	Light gray to gray silty fine to coarse sand with trace gravel (dense, wet)	NS	1.4		
							Becomes wet			SS	2.1
										NS	1.0
15		60				ML	Gray silt with sand (very dense, moist to wet)				
										NS	<1
20											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-50



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Figure A-6
Sheet 1 of 1

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)			System Datum		Groundwater not observed at time of exploration					
Notes:										

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
0		30			GEI-51_0-2	CR	Gravel surface				
						SM	Dark brown silty fine to coarse sand with gravel	SS	6.4		
					GEI-51_2-4			SS	8.2		
					GEI-51_4-6			SS	<1		
5		55			GEI-51_6-8	SM	Dark brown silty fine to coarse sand with trace gravel	SS	<1		
						SM	Gray silty fine to coarse sand with gravel				
					GEI-51_8-10	SP	Dark gray fine to coarse sand				
						PT	Peat	MS	8.3		
					GEI-51_10-12	SM	Dark brown silty fine to coarse sand with organic matter	NS	7.5		
10		60			GEI-51_12-14	SM	Dark gray silty fine to coarse sand with gravel	NS	<1		
					GEI-51_14-16	SP-SM	Dark gray fine to coarse sand with silt	NS	<1		
15		60			GEI-51_16-18	SP-GP	Dark gray fine to coarse sand with gravel	NS	<1		
						ML	Gray silt with sand and gravel				
20											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-51



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)			System Datum		Groundwater not observed at time of exploration					
Notes:										

Elevation (feet)	FIELD DATA					Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					
0		36			GEI-52_0-2	CC	Concrete powder, busted down	SS	14.7	
					GEI-52_2-4			MS	15.7	
					GEI-52_4-6	SP-SM	Dark brown fine to coarse sand with silt and gravel	MS	15.3	
5		42			GEI-52_6-8	SP-SM	Dark brown fine to coarse sand with occasional silt	SS	10.3	
					GEI-52_8-10	SM	Gray silty fine to coarse sand with gravel (dense, moist)	NS	10.8	
10		56			GEI-52_10-12	PT	Peat (soft, moist)	NS	8.8	
					GEI-52_12-14			NS	6.4	
					GEI-52_14-16	SM	Dark brown silty fine to coarse sand (dense, wet)	NS	7.2	
15		60			GEI-52_16-18	SM	Gray silty fine to coarse sand with gravel gravel (dense, wet)	NS	5.9	
						ML	Gray silt with sand (very dense, moist)			
20						ML	Brown silt with sand (very dense, moist)			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-52



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 7/5/2022	End 7/5/2022	Total Depth (ft)	20	Logged By Checked By	NS BRD	Driller	Drilling Method	Direct-Push	
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		NA		Drilling Equipment	Geoprobe Track Mounted Rig
Easting (X) Northing (Y)					System Datum		Groundwater not observed at time of exploration			
Notes:										

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
0		30			GEI-53_0-2	CR	Gravel surface				
						GP/SP	Gray gravel with silty sand (very dense, dry)	SS	<1		
					GEI-53_2-4	SP-GP	Brown silty fine to coarse sand with gravel (very dense, moist)	HS	33.5		Blocky sheen
						SM	Gray silty fine to coarse sand with trace gravel (dense, dry to moist)				
					GEI-53_4-6	CC	Concrete				
						SM	Gray silty fine to coarse sand with trace gravel (dense, dry to moist)	NS	9.3		
5		48				SM	Brown silty fine to medium sand with organic matter (medium dense, moist)				
					GEI-53_6-8	SM	Dark brown				
						SM	Brown silty fine to coarse sand with gravel (dense, moist to dry)	MS	20.3		Blocky sheen
						ML	Gray silt with sand and trace gravel (dense, dry)				
					GEI-53_8-10	PT	Peat				
						SP-SM	Dark brown fine to medium sand with silt and organic matter (medium dense, moist to wet)	NS	8.3		
10		44			GEI-53_10-12	SM	Gray silty fine to medium sand (dense, wet)				
								SS	5.1		
					GEI-53_12-14			SS	3.2		
						GP	Gray gravel with silt and sand (dense, wet)				
					GEI-53_14-16	SM	Brown-gray silty fine to coarse and with gravel (medium dense, wet)	NS	3.1		
15		60				SM	Gray silty fine to medium sand (dense, wet)				
					GEI-53_16-18			NS	2.9		
						ML	Light gray-light brown silt with sand and trace gravel (very dense, moist)				
						ML	Light brown silt with sand and trace gravel (very dense, dry)				
20								NS	1.6		

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring GEI-53



Project: Supplemental 2nd Street Right-of-Way Soil Investigation
Project Location: Anacortes, Washington
Project Number: 5147-024-13

Figure A-9
Sheet 1 of 1

Date: 8/22 Path: P:\5147024\GINT\5147024\13.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEB_ENVIRONMENTAL_STANDARD_NO.GW

ATTACHMENT 2
Laboratory Data Reports



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 28, 2022

Brian Tracy
GeoEngineers, Inc.
2101 4th Avenue, Suite 950
Seattle, WA 98121

Re: Analytical Data for Project 5147-024-13 T200
Laboratory Reference No. 2207-019

Dear Brian:

Enclosed are the analytical results and associated quality control data for samples submitted on July 6, 2022.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Blair Goodrow", enclosed within a large, loopy circular scribble.

Blair Goodrow
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 28, 2022
Samples Submitted: July 6, 2022
Laboratory Reference: 2207-019
Project: 5147-024-13 T200

Case Narrative

Samples were collected on July 5, 2022 and received by the laboratory on July 6, 2022. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Gx Analysis

The MTCA Method A cleanup level of 30.0 ppm for fresh gasoline is not achievable for samples GEI-49_8-10 and GEI-52_8-10 due to the low dry weight of the samples.

Volatiles EPA 8260D Analysis

Some client requested PQLs are not achievable for samples GEI-49_4-6 and GEI-DUP-2 due to the necessary dilution of these samples.

Some client requested PQLs are not achievable for samples GEI-49_8-10 and GEI-52_8-10 due to the low dry weight of the samples.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GEI-46_0-2	07-019-01	Soil	7-5-22	7-6-22	
GEI-46_6-8	07-019-04	Soil	7-5-22	7-6-22	
GEI-46_12-14	07-019-07	Soil	7-5-22	7-6-22	
GEI-46_16-18	07-019-09	Soil	7-5-22	7-6-22	
GEI-47_0-2	07-019-10	Soil	7-5-22	7-6-22	
GEI-47_4-6	07-019-12	Soil	7-5-22	7-6-22	
GEI-47_10-12	07-019-15	Soil	7-5-22	7-6-22	
GEI-47_14-16	07-019-17	Soil	7-5-22	7-6-22	
GEI-48_0-2	07-019-19	Soil	7-5-22	7-6-22	
GEI-48_4-6	07-019-21	Soil	7-5-22	7-6-22	
GEI-48_10-12	07-019-24	Soil	7-5-22	7-6-22	
GEI-48_16-18	07-019-27	Soil	7-5-22	7-6-22	
GEI-49_0-2	07-019-28	Soil	7-5-22	7-6-22	
GEI-49_4-6	07-019-30	Soil	7-5-22	7-6-22	
GEI-49_8-10	07-019-32	Soil	7-5-22	7-6-22	
GEI-49_14-16	07-019-35	Soil	7-5-22	7-6-22	
GEI-50_0-2	07-019-37	Soil	7-5-22	7-6-22	
GEI-50_4-6	07-019-39	Soil	7-5-22	7-6-22	
GEI-50_8-10	07-019-41	Soil	7-5-22	7-6-22	
GEI-51_0-2	07-019-46	Soil	7-5-22	7-6-22	
GEI-51_6-8	07-019-49	Soil	7-5-22	7-6-22	
GEI-51_10-12	07-019-51	Soil	7-5-22	7-6-22	
GEI-52_0-2	07-019-55	Soil	7-5-22	7-6-22	
GEI-52_4-6	07-019-57	Soil	7-5-22	7-6-22	
GEI-52_8-10	07-019-59	Soil	7-5-22	7-6-22	
GEI-53_0-2	07-019-64	Soil	7-5-22	7-6-22	
GEI-53_2-4	07-019-65	Soil	7-5-22	7-6-22	
GEI-53_4-6	07-019-66	Soil	7-5-22	7-6-22	
GEI-53_8-10	07-019-68	Soil	7-5-22	7-6-22	
GEI-DUP-1	07-019-74	Soil	7-5-22	7-6-22	
GEI-DUP-2	07-019-75	Soil	7-5-22	7-6-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_0-2					
Laboratory ID:	07-019-01					
Gasoline	ND	3.9	NWTPH-Gx	7-6-22	7-6-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	83	69-130				
Client ID:	GEI-46_6-8					
Laboratory ID:	07-019-04					
Gasoline	ND	1200	NWTPH-Gx	7-6-22	7-6-22	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	85	69-130				
Client ID:	GEI-46_12-14					
Laboratory ID:	07-019-07					
Gasoline	ND	4.6	NWTPH-Gx	7-6-22	7-7-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	69-130				
Client ID:	GEI-46_16-18					
Laboratory ID:	07-019-09					
Gasoline	ND	3.5	NWTPH-Gx	7-6-22	7-6-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	69-130				
Client ID:	GEI-47_0-2					
Laboratory ID:	07-019-10					
Gasoline	31	4.0	NWTPH-Gx	7-6-22	7-6-22	O
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	84	69-130				
Client ID:	GEI-47_4-6					
Laboratory ID:	07-019-12					
Gasoline	ND	1200	NWTPH-Gx	7-6-22	7-6-22	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	69-130				
Client ID:	GEI-47_10-12					
Laboratory ID:	07-019-15					
Gasoline	ND	4.2	NWTPH-Gx	7-6-22	7-7-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	69-130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags	
Client ID:	GEI-47_14-16						
Laboratory ID:	07-019-17						
Gasoline	ND	3.0	NWTPH-Gx	7-6-22	7-7-22		
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Fluorobenzene</i>	87	69-130					
Client ID:	GEI-48_0-2						
Laboratory ID:	07-019-19						
Gasoline	17	5.3	NWTPH-Gx	7-6-22	7-8-22	O	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Fluorobenzene</i>	82	69-130					
Client ID:	GEI-48_4-6						
Laboratory ID:	07-019-21						
Gasoline	ND	320	NWTPH-Gx	7-6-22	7-7-22	U1	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Fluorobenzene</i>	95	69-130					
Client ID:	GEI-48_10-12						
Laboratory ID:	07-019-24						
Gasoline	ND	13	NWTPH-Gx	7-6-22	7-7-22		
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Fluorobenzene</i>	78	69-130					
Client ID:	GEI-48_16-18						
Laboratory ID:	07-019-27						
Gasoline	ND	4.8	NWTPH-Gx	7-6-22	7-7-22		
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Fluorobenzene</i>	95	69-130					
Client ID:	GEI-49_0-2						
Laboratory ID:	07-019-28						
Gasoline	ND	17	NWTPH-Gx	7-6-22	7-7-22	U1	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Fluorobenzene</i>	96	69-130					
Client ID:	GEI-49_4-6						
Laboratory ID:	07-019-30						
Gasoline	ND	1600	NWTPH-Gx	7-6-22	7-7-22	U1	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Fluorobenzene</i>	---	69-130					S



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_8-10					
Laboratory ID:	07-019-32					
Gasoline	ND	64	NWTPH-Gx	7-6-22	7-7-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	81	69-130				
Client ID:	GEI-49_14-16					
Laboratory ID:	07-019-35					
Gasoline	ND	4.5	NWTPH-Gx	7-6-22	7-7-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	69-130				
Client ID:	GEI-DUP-2					
Laboratory ID:	07-019-75					
Gasoline	ND	60	NWTPH-Gx	7-6-22	7-7-22	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	69-130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_0-2					
Laboratory ID:	07-019-01					
Diesel Range Organics	ND	60	NWTPH-Dx	7-7-22	7-8-22	U1
Lube Oil	670	52	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	106	50-150				

Client ID:	GEI-46_6-8					
Laboratory ID:	07-019-04					
Diesel Fuel #2	3500	28	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil	710	56	NWTPH-Dx	7-7-22	7-8-22	N1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

Client ID:	GEI-46_12-14					
Laboratory ID:	07-019-07					
Diesel Range Organics	ND	30	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil	62	60	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				

Client ID:	GEI-46_16-18					
Laboratory ID:	07-019-09					
Diesel Range Organics	ND	29	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil Range Organics	ND	57	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Client ID:	GEI-47_0-2					
Laboratory ID:	07-019-10					
Diesel Range Organics	2600	260	NWTPH-Dx	7-7-22	7-8-22	N
Lube Oil Range Organics	6000	520	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S

Client ID:	GEI-47_4-6					
Laboratory ID:	07-019-12					
Diesel Fuel #2	2600	29	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil	1400	58	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_10-12					
Laboratory ID:	07-019-15					
Diesel Range Organics	89	30	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil	150	59	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				

Client ID:	GEI-47_14-16					
Laboratory ID:	07-019-17					
Diesel Range Organics	27	27	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil Range Organics	71	53	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	60	50-150				

Client ID:	GEI-48_0-2					
Laboratory ID:	07-019-19					
Diesel Range Organics	1200	260	NWTPH-Dx	7-7-22	7-8-22	N
Lube Oil Range Organics	3800	510	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				

Client ID:	GEI-48_4-6					
Laboratory ID:	07-019-21					
Diesel Range Organics	2400	28	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil Range Organics	1900	56	NWTPH-Dx	7-7-22	7-8-22	N1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	148	50-150				

Client ID:	GEI-48_10-12					
Laboratory ID:	07-019-24					
Diesel Range Organics	880	31	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil Range Organics	720	61	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				

Client ID:	GEI-48_16-18					
Laboratory ID:	07-019-27					
Diesel Range Organics	ND	29	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil Range Organics	ND	58	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	71	50-150				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
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 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_0-2					
Laboratory ID:	07-019-28					
Diesel Range Organics	71	27	NWTPH-Dx	7-7-22	7-8-22	N
Lube Oil Range Organics	440	53	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	69	50-150				
Client ID:	GEI-49_4-6					
Laboratory ID:	07-019-30					
Diesel Fuel #2	3400	28	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil	850	55	NWTPH-Dx	7-7-22	7-8-22	N1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				
Client ID:	GEI-49_8-10					
Laboratory ID:	07-019-32					
Diesel Range Organics	290	92	NWTPH-Dx	7-7-22	7-8-22	N
Lube Oil Range Organics	1900	190	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	56	50-150				
Client ID:	GEI-49_14-16					
Laboratory ID:	07-019-35					
Diesel Range Organics	ND	30	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil Range Organics	ND	60	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	54	50-150				
Client ID:	GEI-DUP-2					
Laboratory ID:	07-019-75					
Diesel Fuel #2	3300	28	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil	700	56	NWTPH-Dx	7-7-22	7-8-22	N1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_0-2					
Laboratory ID:	07-019-01					
Methyl t-Butyl Ether	ND	0.00073	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0037	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.00073	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00037	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0037	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00037	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.00073	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0015	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.00073	EPA 8260D	7-7-22	7-7-22	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	100	75-130
Toluene-d8	101	78-128
4-Bromofluorobenzene	99	71-130

Client ID:	GEI-46_6-8					
Laboratory ID:	07-019-04					
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0055	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.0011	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00055	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0055	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00055	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.0025	EPA 8260D	7-7-22	7-7-22	U1
m,p-Xylene	ND	0.0096	EPA 8260D	7-7-22	7-7-22	U1
o-Xylene	ND	0.0043	EPA 8260D	7-7-22	7-7-22	U1

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	101	75-130
Toluene-d8	109	78-128
4-Bromofluorobenzene	107	71-130



Date of Report: July 28, 2022
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 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_12-14					
Laboratory ID:	07-019-07					
Methyl t-Butyl Ether	ND	0.00068	EPA 8260D	7-8-22	7-8-22	
n-Hexane	ND	0.0034	EPA 8260D	7-8-22	7-8-22	
Benzene	ND	0.00068	EPA 8260D	7-8-22	7-8-22	
1,2-Dichloroethane	ND	0.00034	EPA 8260D	7-8-22	7-8-22	
Toluene	ND	0.0034	EPA 8260D	7-8-22	7-8-22	
1,2-Dibromoethane	ND	0.00034	EPA 8260D	7-8-22	7-8-22	
Ethylbenzene	ND	0.00068	EPA 8260D	7-8-22	7-8-22	
m,p-Xylene	ND	0.0014	EPA 8260D	7-8-22	7-8-22	
o-Xylene	ND	0.00068	EPA 8260D	7-8-22	7-8-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	96	75-130
<i>Toluene-d8</i>	102	78-128
<i>4-Bromofluorobenzene</i>	102	71-130

Client ID:	GEI-46_16-18					
Laboratory ID:	07-019-09					
Methyl t-Butyl Ether	ND	0.00074	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0037	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.00074	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00037	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0037	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00037	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.00074	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0015	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.00074	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	98	75-130
<i>Toluene-d8</i>	102	78-128
<i>4-Bromofluorobenzene</i>	104	71-130



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_0-2					
Laboratory ID:	07-019-10					
Methyl t-Butyl Ether	ND	0.00068	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0034	EPA 8260D	7-7-22	7-7-22	
Benzene	0.00094	0.00068	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00034	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0034	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00034	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	0.0014	0.00068	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	0.0027	0.0014	EPA 8260D	7-7-22	7-7-22	
o-Xylene	0.0051	0.00068	EPA 8260D	7-7-22	7-7-22	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	124	75-130
Toluene-d8	112	78-128
4-Bromofluorobenzene	94	71-130

Client ID:	GEI-47_4-6					
Laboratory ID:	07-019-12					
Methyl t-Butyl Ether	ND	0.0013	EPA 8260D	7-7-22	7-8-22	
n-Hexane	ND	0.0063	EPA 8260D	7-7-22	7-8-22	
Benzene	ND	0.0013	EPA 8260D	7-7-22	7-8-22	
1,2-Dichloroethane	ND	0.00063	EPA 8260D	7-7-22	7-8-22	
Toluene	ND	0.0063	EPA 8260D	7-7-22	7-8-22	
1,2-Dibromoethane	ND	0.00063	EPA 8260D	7-7-22	7-8-22	
Ethylbenzene	ND	0.0024	EPA 8260D	7-7-22	7-8-22	U1
m,p-Xylene	ND	0.0063	EPA 8260D	7-7-22	7-8-22	U1
o-Xylene	ND	0.0022	EPA 8260D	7-7-22	7-8-22	U1

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	95	75-130
Toluene-d8	101	78-128
4-Bromofluorobenzene	103	71-130



Date of Report: July 28, 2022
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 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_10-12					
Laboratory ID:	07-019-15					
Methyl t-Butyl Ether	ND	0.00072	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0036	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.00072	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00036	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0036	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00036	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.00072	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0014	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.00072	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	96	75-130
<i>Toluene-d8</i>	100	78-128
<i>4-Bromofluorobenzene</i>	101	71-130

Client ID:	GEI-47_14-16					
Laboratory ID:	07-019-17					
Methyl t-Butyl Ether	ND	0.00059	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0030	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.00059	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00030	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0030	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00030	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.00059	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0012	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.00059	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	97	75-130
<i>Toluene-d8</i>	101	78-128
<i>4-Bromofluorobenzene</i>	101	71-130



Date of Report: July 28, 2022
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 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-48_0-2					
Laboratory ID:	07-019-19					
Methyl t-Butyl Ether	ND	0.00071	EPA 8260D	7-7-22	7-7-22	
n-Hexane	0.013	0.0036	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.00071	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00036	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0036	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00036	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.00071	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0014	EPA 8260D	7-7-22	7-7-22	
o-Xylene	0.0011	0.00071	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	99	75-130
<i>Toluene-d8</i>	101	78-128
<i>4-Bromofluorobenzene</i>	99	71-130

Client ID:	GEI-48_4-6					
Laboratory ID:	07-019-21					
Methyl t-Butyl Ether	ND	0.00056	EPA 8260D	7-8-22	7-8-22	
n-Hexane	ND	0.0028	EPA 8260D	7-8-22	7-8-22	
Benzene	ND	0.00056	EPA 8260D	7-8-22	7-8-22	
1,2-Dichloroethane	ND	0.00028	EPA 8260D	7-8-22	7-8-22	
Toluene	ND	0.0028	EPA 8260D	7-8-22	7-8-22	
1,2-Dibromoethane	ND	0.00028	EPA 8260D	7-8-22	7-8-22	
Ethylbenzene	ND	0.00056	EPA 8260D	7-8-22	7-8-22	
m,p-Xylene	ND	0.0011	EPA 8260D	7-8-22	7-8-22	
o-Xylene	ND	0.00056	EPA 8260D	7-8-22	7-8-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	97	75-130
<i>Toluene-d8</i>	102	78-128
<i>4-Bromofluorobenzene</i>	103	71-130



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-48_10-12					
Laboratory ID:	07-019-24					
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0057	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.0011	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00057	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0057	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00057	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.0011	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0023	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.0011	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	99	75-130
<i>Toluene-d8</i>	102	78-128
<i>4-Bromofluorobenzene</i>	100	71-130

Client ID:	GEI-48_16-18					
Laboratory ID:	07-019-27					
Methyl t-Butyl Ether	ND	0.00099	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0049	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.00099	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00049	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0049	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00049	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.00099	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0020	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.00099	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	97	75-130
<i>Toluene-d8</i>	101	78-128
<i>4-Bromofluorobenzene</i>	102	71-130



Date of Report: July 28, 2022
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VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_0-2					
Laboratory ID:	07-019-28					
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0050	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.0010	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00050	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0050	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00050	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.0012	EPA 8260D	7-7-22	7-7-22	U1
m,p-Xylene	ND	0.0020	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.0021	EPA 8260D	7-7-22	7-7-22	U1

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	98	75-130
Toluene-d8	114	78-128
4-Bromofluorobenzene	103	71-130

Client ID:	GEI-49_4-6					
Laboratory ID:	07-019-30					
Methyl t-Butyl Ether	ND	0.22	EPA 8260D	7-7-22	7-8-22	
n-Hexane	ND	1.1	EPA 8260D	7-7-22	7-8-22	
Benzene	ND	0.22	EPA 8260D	7-7-22	7-8-22	
1,2-Dichloroethane	ND	0.11	EPA 8260D	7-7-22	7-8-22	
Toluene	ND	1.1	EPA 8260D	7-7-22	7-8-22	
1,2-Dibromoethane	ND	0.11	EPA 8260D	7-7-22	7-8-22	
Ethylbenzene	ND	0.22	EPA 8260D	7-7-22	7-8-22	
m,p-Xylene	ND	0.43	EPA 8260D	7-7-22	7-8-22	
o-Xylene	ND	0.22	EPA 8260D	7-7-22	7-8-22	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	95	75-130
Toluene-d8	102	78-128
4-Bromofluorobenzene	107	71-130



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_8-10					
Laboratory ID:	07-019-32					
Methyl t-Butyl Ether	ND	0.0055	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.028	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.0055	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.0028	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.028	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.0028	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.0055	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.011	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.0055	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>

Client ID:	GEI-49_14-16					
Laboratory ID:	07-019-35					
Methyl t-Butyl Ether	ND	0.00080	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0040	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.00080	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00040	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0040	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00040	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.00080	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0016	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.00080	EPA 8260D	7-7-22	7-7-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>71-130</i>



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-DUP-2					
Laboratory ID:	07-019-75					
Methyl t-Butyl Ether	ND	0.055	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.27	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.055	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.027	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.27	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.027	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.055	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.11	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.055	EPA 8260D	7-7-22	7-7-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-130</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>71-130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_0-2					
Laboratory ID:	07-019-01					
Arsenic	ND	10	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.52	EPA 6010D	7-6-22	7-7-22	
Chromium	32	0.52	EPA 6010D	7-6-22	7-7-22	
Lead	44	5.2	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.052	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-46_6-8					
Laboratory ID:	07-019-04					
Arsenic	ND	11	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.56	EPA 6010D	7-6-22	7-7-22	
Chromium	13	0.56	EPA 6010D	7-6-22	7-7-22	
Lead	ND	5.6	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.056	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-46_12-14					
Laboratory ID:	07-019-07					
Arsenic	ND	12	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.60	EPA 6010D	7-6-22	7-7-22	
Chromium	24	0.60	EPA 6010D	7-6-22	7-7-22	
Lead	ND	6.0	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.060	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-46_16-18					
Laboratory ID:	07-019-09					
Arsenic	ND	11	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.57	EPA 6010D	7-6-22	7-7-22	
Chromium	26	0.57	EPA 6010D	7-6-22	7-7-22	
Lead	ND	5.7	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.057	EPA 7471B	7-7-22	7-7-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_0-2					
Laboratory ID:	07-019-10					
Arsenic	ND	10	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.52	EPA 6010D	7-6-22	7-7-22	
Chromium	29	0.52	EPA 6010D	7-6-22	7-7-22	
Lead	43	5.2	EPA 6010D	7-6-22	7-7-22	
Mercury	0.055	0.052	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-47_4-6					
Laboratory ID:	07-019-12					
Arsenic	ND	12	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.58	EPA 6010D	7-6-22	7-7-22	
Chromium	44	0.58	EPA 6010D	7-6-22	7-7-22	
Lead	25	5.8	EPA 6010D	7-6-22	7-7-22	
Mercury	0.060	0.058	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-47_10-12					
Laboratory ID:	07-019-15					
Arsenic	ND	12	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.59	EPA 6010D	7-6-22	7-7-22	
Chromium	16	0.59	EPA 6010D	7-6-22	7-7-22	
Lead	ND	5.9	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.059	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-47_14-16					
Laboratory ID:	07-019-17					
Arsenic	ND	11	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.53	EPA 6010D	7-6-22	7-7-22	
Chromium	24	0.53	EPA 6010D	7-6-22	7-7-22	
Lead	ND	5.3	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.053	EPA 7471B	7-7-22	7-7-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-48_0-2					
Laboratory ID:	07-019-19					
Arsenic	ND	10	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.51	EPA 6010D	7-6-22	7-7-22	
Chromium	32	0.51	EPA 6010D	7-6-22	7-7-22	
Lead	69	5.1	EPA 6010D	7-6-22	7-7-22	
Mercury	0.13	0.051	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-48_4-6					
Laboratory ID:	07-019-21					
Arsenic	ND	11	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.56	EPA 6010D	7-6-22	7-7-22	
Chromium	26	0.56	EPA 6010D	7-6-22	7-7-22	
Lead	20	5.6	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.056	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-48_10-12					
Laboratory ID:	07-019-24					
Arsenic	ND	12	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.61	EPA 6010D	7-6-22	7-7-22	
Chromium	27	0.61	EPA 6010D	7-6-22	7-7-22	
Lead	10	6.1	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.061	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-48_16-18					
Laboratory ID:	07-019-27					
Arsenic	ND	12	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.58	EPA 6010D	7-6-22	7-7-22	
Chromium	25	0.58	EPA 6010D	7-6-22	7-7-22	
Lead	ND	5.8	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.058	EPA 7471B	7-7-22	7-7-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_0-2					
Laboratory ID:	07-019-28					
Arsenic	ND	11	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.53	EPA 6010D	7-6-22	7-7-22	
Chromium	24	0.53	EPA 6010D	7-6-22	7-7-22	
Lead	38	5.3	EPA 6010D	7-6-22	7-7-22	
Mercury	0.098	0.053	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-49_4-6					
Laboratory ID:	07-019-30					
Arsenic	ND	11	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.55	EPA 6010D	7-6-22	7-7-22	
Chromium	37	0.55	EPA 6010D	7-6-22	7-7-22	
Lead	5.5	5.5	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.055	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-49_8-10					
Laboratory ID:	07-019-32					
Arsenic	ND	18	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	1.8	EPA 6010D	7-6-22	7-7-22	
Chromium	35	1.8	EPA 6010D	7-6-22	7-7-22	
Lead	ND	18	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.066	EPA 7471B	7-7-22	7-7-22	

Client ID:	GEI-49_14-16					
Laboratory ID:	07-019-35					
Arsenic	ND	12	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.60	EPA 6010D	7-6-22	7-7-22	
Chromium	28	0.60	EPA 6010D	7-6-22	7-7-22	
Lead	ND	6.0	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.060	EPA 7471B	7-7-22	7-7-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-DUP-2					
Laboratory ID:	07-019-75					
Arsenic	ND	11	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.55	EPA 6010D	7-6-22	7-7-22	
Chromium	13	0.55	EPA 6010D	7-6-22	7-7-22	
Lead	ND	5.5	EPA 6010D	7-6-22	7-7-22	
Mercury	ND	0.055	EPA 7471B	7-7-22	7-7-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_0-2					
Laboratory ID:	07-019-37					
Gasoline	ND	4.7	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	69-130				
Client ID:	GEI-50_4-6					
Laboratory ID:	07-019-39					
Gasoline	ND	3.9	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	84	69-130				
Client ID:	GEI-50_8-10					
Laboratory ID:	07-019-41					
Gasoline	ND	4.7	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	69-130				
Client ID:	GEI-51_0-2					
Laboratory ID:	07-019-46					
Gasoline	ND	4.2	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	69-130				
Client ID:	GEI-51_6-8					
Laboratory ID:	07-019-49					
Gasoline	ND	5.7	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	69-130				
Client ID:	GEI-51_10-12					
Laboratory ID:	07-019-51					
Gasoline	ND	4.5	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	69-130				
Client ID:	GEI-52_0-2					
Laboratory ID:	07-019-55					
Gasoline	ND	5.4	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	69-130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_4-6					
Laboratory ID:	07-019-57					
Gasoline	ND	4.9	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	69-130				
Client ID:	GEI-52_8-10					
Laboratory ID:	07-019-59					
Gasoline	ND	71	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	102	69-130				
Client ID:	GEI-53_0-2					
Laboratory ID:	07-019-64					
Gasoline	ND	4.6	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	69-130				
Client ID:	GEI-53_2-4					
Laboratory ID:	07-019-65					
Gasoline	ND	75	NWTPH-Gx	7-11-22	7-11-22	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	69-130				
Client ID:	GEI-53_8-10					
Laboratory ID:	07-019-68					
Gasoline	ND	8.5	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	69-130				
Client ID:	GEI-DUP-1					
Laboratory ID:	07-019-74					
Gasoline	ND	16	NWTPH-Gx	7-11-22	7-11-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	69-130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_0-2					
Laboratory ID:	07-019-37					
Diesel Range Organics	ND	26	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil	320	51	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	GEI-50_4-6					
Laboratory ID:	07-019-39					
Diesel Range Organics	ND	47	NWTPH-Dx	7-13-22	7-13-22	U1
Lube Oil Range Organics	290	56	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	GEI-50_8-10					
Laboratory ID:	07-019-41					
Diesel Range Organics	ND	31	NWTPH-Dx	7-13-22	7-14-22	
Lube Oil Range Organics	ND	62	NWTPH-Dx	7-13-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

Client ID:	GEI-51_0-2					
Laboratory ID:	07-019-46					
Diesel Range Organics	ND	26	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	90	51	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				

Client ID:	GEI-51_6-8					
Laboratory ID:	07-019-49					
Diesel Range Organics	ND	33	NWTPH-Dx	7-13-22	7-14-22	U1
Lube Oil Range Organics	130	59	NWTPH-Dx	7-13-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Client ID:	GEI-51_10-12					
Laboratory ID:	07-019-51					
Diesel Range Organics	ND	30	NWTPH-Dx	7-13-22	7-14-22	
Lube Oil Range Organics	ND	61	NWTPH-Dx	7-13-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_0-2					
Laboratory ID:	07-019-55					
Diesel Range Organics	ND	26	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil	280	52	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	GEI-52_4-6					
Laboratory ID:	07-019-57					
Diesel Range Organics	ND	120	NWTPH-Dx	7-13-22	7-14-22	U1
Lube Oil Range Organics	700	54	NWTPH-Dx	7-13-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	GEI-52_8-10					
Laboratory ID:	07-019-59					
Diesel Range Organics	ND	100	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	380	210	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	70	50-150				

Client ID:	GEI-53_0-2					
Laboratory ID:	07-019-64					
Diesel Range Organics	ND	26	NWTPH-Dx	7-13-22	7-14-22	
Lube Oil	320	52	NWTPH-Dx	7-13-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				

Client ID:	GEI-53_2-4					
Laboratory ID:	07-019-65					
Diesel Range Organics	580	28	NWTPH-Dx	7-13-22	7-14-22	
Lube Oil Range Organics	1000	57	NWTPH-Dx	7-13-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	GEI-53_8-10					
Laboratory ID:	07-019-68					
Diesel Range Organics	120	35	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	600	71	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	70	50-150				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-DUP-1					
Laboratory ID:	07-019-74					
Diesel Range Organics	ND	33	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	130	65	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	75	50-150				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_0-2					
Laboratory ID:	07-019-37					
Methyl t-Butyl Ether	ND	0.00057	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0029	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00057	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00029	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0029	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00029	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00057	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0011	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00057	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>107</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>71-130</i>

Client ID:	GEI-50_4-6					
Laboratory ID:	07-019-39					
Methyl t-Butyl Ether	ND	0.00067	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0033	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00067	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00033	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0033	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00033	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00067	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0013	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00067	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>71-130</i>



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_8-10					
Laboratory ID:	07-019-41					
Methyl t-Butyl Ether	ND	0.00067	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0034	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00067	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00034	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0034	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00034	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00067	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0013	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00067	EPA 8260D	7-12-22	7-12-22	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	104	75-130
Toluene-d8	103	78-128
4-Bromofluorobenzene	102	71-130

Client ID:	GEI-51_0-2					
Laboratory ID:	07-019-46					
Methyl t-Butyl Ether	ND	0.00086	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0043	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00086	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00043	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0043	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00043	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00086	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0017	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00086	EPA 8260D	7-12-22	7-12-22	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	103	75-130
Toluene-d8	103	78-128
4-Bromofluorobenzene	102	71-130



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-51_6-8					
Laboratory ID:	07-019-49					
Methyl t-Butyl Ether	ND	0.00073	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0037	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00073	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00037	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0037	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00037	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00073	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0015	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00073	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-130</i>

Client ID:	GEI-51_10-12					
Laboratory ID:	07-019-51					
Methyl t-Butyl Ether	ND	0.00074	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0037	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00074	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00037	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0037	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00037	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00074	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0015	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00074	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>103</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>71-130</i>



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_0-2					
Laboratory ID:	07-019-55					
Methyl t-Butyl Ether	ND	0.00088	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0044	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00088	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00044	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0044	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00044	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00088	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0018	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00088	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>103</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>71-130</i>

Client ID:	GEI-52_4-6					
Laboratory ID:	07-019-57					
Methyl t-Butyl Ether	ND	0.00072	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0036	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00072	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00036	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0036	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00036	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00072	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0014	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00072	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_8-10					
Laboratory ID:	07-019-59					
Methyl t-Butyl Ether	ND	0.0056	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.028	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.0056	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.0028	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.028	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.0028	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.0056	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.011	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.0056	EPA 8260D	7-12-22	7-12-22	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	104	75-130
Toluene-d8	101	78-128
4-Bromofluorobenzene	100	71-130

Client ID:	GEI-53_0-2					
Laboratory ID:	07-019-64					
Methyl t-Butyl Ether	ND	0.00099	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0049	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00099	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00049	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0049	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00049	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00099	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0020	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00099	EPA 8260D	7-12-22	7-12-22	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	99	75-130
Toluene-d8	102	78-128
4-Bromofluorobenzene	99	71-130



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_2-4					
Laboratory ID:	07-019-65					
Methyl t-Butyl Ether	ND	0.00092	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0046	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.00092	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00046	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0046	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00046	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.00092	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0018	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.00092	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>104</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>71-130</i>

Client ID:	GEI-53_8-10					
Laboratory ID:	07-019-68					
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0061	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.0012	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00061	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0061	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00061	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.0012	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0024	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.0012	EPA 8260D	7-12-22	7-12-22	

<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-130</i>
<i>Toluene-d8</i>	<i>103</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-DUP-1					
Laboratory ID:	07-019-74					
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0050	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00050	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0050	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00050	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0020	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-130</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>71-130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_0-2					
Laboratory ID:	07-019-01					
Naphthalene	0.026	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	0.050	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	0.033	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	0.25	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	ND	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	0.017	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	0.16	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	2.9	0.034	EPA 8270E/SIM	7-12-22	7-14-22	
Fluoranthene	0.72	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	0.67	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	0.36	0.0034	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	0.45	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	0.50	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo(j,k)fluoranthene	0.17	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	0.27	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	0.33	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	0.073	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	0.43	0.0069	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>59</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>65</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>82</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_6-8					
Laboratory ID:	07-019-04					
Naphthalene	0.50	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
2-Methylnaphthalene	4.5	0.037	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	6.5	0.074	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	0.17	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Acenaphthene	0.43	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Fluorene	0.62	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Phenanthrene	0.52	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Anthracene	0.017	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Fluoranthene	0.022	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Pyrene	0.026	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[a]anthracene	0.013	0.0037	EPA 8270E/SIM	7-12-22	7-12-22	
Chrysene	0.031	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[b]fluoranthene	0.015	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo(j,k)fluoranthene	ND	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[a]pyrene	0.017	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Indeno(1,2,3-c,d)pyrene	0.0085	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Dibenz[a,h]anthracene	ND	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[g,h,i]perylene	0.010	0.0074	EPA 8270E/SIM	7-12-22	7-12-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>54</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>66</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>76</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_12-14					
Laboratory ID:	07-019-07					
Naphthalene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	ND	0.0099	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	ND	0.0040	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[j,k]fluoranthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>55</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>63</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-46_16-18					
Laboratory ID:	07-019-09					
Naphthalene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	ND	0.0038	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	ND	0.0076	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>71</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>62</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_0-2					
Laboratory ID:	07-019-10					
Naphthalene	0.37	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	1.6	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	1.1	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	0.093	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	0.22	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	0.31	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	0.64	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	0.21	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	0.14	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	0.59	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	0.22	0.017	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	0.33	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	0.13	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo(j,k)fluoranthene	ND	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	0.13	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	0.077	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	0.13	0.034	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>66</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>67</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_4-6					
Laboratory ID:	07-019-12					
Naphthalene	0.73	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	7.1	0.078	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	4.6	0.078	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	0.10	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	0.22	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	0.51	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	0.62	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	0.082	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	0.15	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	0.15	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	0.080	0.0039	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	0.11	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	0.082	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo(j,k)fluoranthene	0.024	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	0.091	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	0.062	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	0.015	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	0.073	0.0078	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>52</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>63</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_10-12					
Laboratory ID:	07-019-15					
Naphthalene	0.037	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	0.23	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	0.14	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	0.0079	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	0.014	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	0.026	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	0.042	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	0.012	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	0.013	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	0.034	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	0.013	0.0040	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	0.022	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	0.012	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	0.0098	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	0.011	0.0079	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>61</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>65</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>62</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-47_14-16					
Laboratory ID:	07-019-17					
Naphthalene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	0.0074	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	0.0082	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	ND	0.0036	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[j,k]fluoranthene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	ND	0.0071	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	52	42 - 116				
Pyrene-d10	63	41 - 116				
Terphenyl-d14	73	49 - 130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-48_0-2					
Laboratory ID:	07-019-19					
Naphthalene	0.040	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	0.20	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	0.12	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	0.018	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	0.039	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	0.055	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	0.16	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	0.031	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	0.049	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	0.16	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	0.063	0.0068	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	0.13	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	0.047	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo(j,k)fluoranthene	ND	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	0.053	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	0.025	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	0.058	0.014	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>73</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>73</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>75</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-48_4-6					
Laboratory ID:	07-019-21					
Naphthalene	0.40	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
2-Methylnaphthalene	4.0	0.074	EPA 8270E/SIM	7-12-22	7-14-22	
1-Methylnaphthalene	2.3	0.074	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthylene	0.11	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthene	0.076	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Fluorene	0.46	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Phenanthrene	0.48	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Anthracene	0.085	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Fluoranthene	0.13	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Pyrene	0.23	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]anthracene	0.059	0.0037	EPA 8270E/SIM	7-12-22	7-14-22	
Chrysene	0.11	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[b]fluoranthene	0.047	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo(j,k)fluoranthene	ND	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]pyrene	0.035	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Indeno(1,2,3-c,d)pyrene	0.024	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Dibenz[a,h]anthracene	ND	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[g,h,i]perylene	0.036	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>77</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>98</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-48_10-12					
Laboratory ID:	07-019-24					
Naphthalene	0.15	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
2-Methylnaphthalene	2.5	0.041	EPA 8270E/SIM	7-12-22	7-14-22	
1-Methylnaphthalene	1.7	0.041	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthylene	0.065	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthene	0.14	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Fluorene	0.28	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Phenanthrene	0.37	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Anthracene	0.038	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Fluoranthene	0.087	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Pyrene	0.11	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]anthracene	0.048	0.0041	EPA 8270E/SIM	7-12-22	7-14-22	
Chrysene	0.069	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[b]fluoranthene	0.048	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo(j,k)fluoranthene	0.012	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]pyrene	0.047	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Indeno(1,2,3-c,d)pyrene	0.029	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Dibenz[a,h]anthracene	0.0084	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[g,h,i]perylene	0.039	0.0082	EPA 8270E/SIM	7-12-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>75</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>73</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-48_16-18					
Laboratory ID:	07-019-27					
Naphthalene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	ND	0.0038	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[j,k]fluoranthene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	ND	0.0077	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>54</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>61</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>71</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_0-2					
Laboratory ID:	07-019-28					
Naphthalene	0.058	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
2-Methylnaphthalene	0.35	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
1-Methylnaphthalene	0.27	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthylene	0.033	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthene	0.014	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Fluorene	0.021	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Phenanthrene	0.078	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Anthracene	0.029	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Fluoranthene	0.10	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Pyrene	0.11	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]anthracene	0.073	0.0035	EPA 8270E/SIM	7-12-22	7-14-22	
Chrysene	0.065	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[b]fluoranthene	0.090	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo(j,k)fluoranthene	0.026	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]pyrene	0.075	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Indeno(1,2,3-c,d)pyrene	0.058	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Dibenz[a,h]anthracene	0.013	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[g,h,i]perylene	0.077	0.0071	EPA 8270E/SIM	7-12-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>74</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>95</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_4-6					
Laboratory ID:	07-019-30					
Naphthalene	0.30	0.18	EPA 8270E/SIM	7-12-22	7-14-22	
2-Methylnaphthalene	19	0.18	EPA 8270E/SIM	7-12-22	7-14-22	
1-Methylnaphthalene	12	0.18	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthylene	0.21	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthene	0.82	0.18	EPA 8270E/SIM	7-12-22	7-14-22	
Fluorene	1.4	0.18	EPA 8270E/SIM	7-12-22	7-14-22	
Phenanthrene	1.9	0.18	EPA 8270E/SIM	7-12-22	7-14-22	
Anthracene	0.13	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Fluoranthene	0.099	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Pyrene	0.16	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]anthracene	0.089	0.0037	EPA 8270E/SIM	7-12-22	7-14-22	
Chrysene	0.13	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[b]fluoranthene	0.050	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo(j,k)fluoranthene	0.0088	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]pyrene	0.059	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Indeno(1,2,3-c,d)pyrene	0.031	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Dibenz[a,h]anthracene	0.0093	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[g,h,i]perylene	0.037	0.0074	EPA 8270E/SIM	7-12-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>92</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>81</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_8-10					
Laboratory ID:	07-019-32					
Naphthalene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
2-Methylnaphthalene	ND	0.048	EPA 8270E/SIM	7-12-22	7-14-22	
1-Methylnaphthalene	ND	0.038	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthylene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Acenaphthene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Fluorene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Phenanthrene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Anthracene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Fluoranthene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Pyrene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]anthracene	0.012	0.012	EPA 8270E/SIM	7-12-22	7-14-22	
Chrysene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[b]fluoranthene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo(j,k)fluoranthene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[a]pyrene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Indeno(1,2,3-c,d)pyrene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Dibenz[a,h]anthracene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
Benzo[g,h,i]perylene	ND	0.025	EPA 8270E/SIM	7-12-22	7-14-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>59</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-49_14-16					
Laboratory ID:	07-019-35					
Naphthalene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
2-Methylnaphthalene	0.016	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
1-Methylnaphthalene	0.0099	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthylene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Acenaphthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Fluorene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Phenanthrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Anthracene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Fluoranthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Pyrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]anthracene	ND	0.0040	EPA 8270E/SIM	7-12-22	7-13-22	
Chrysene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[j,k]fluoranthene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[a]pyrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
Benzo[g,h,i]perylene	ND	0.0080	EPA 8270E/SIM	7-12-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	56	42 - 116				
Pyrene-d10	62	41 - 116				
Terphenyl-d14	71	49 - 130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_4-6					
Laboratory ID:	07-019-66					
Gasoline	ND	5.7	NWTPH-Gx	7-19-22	7-19-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	69-130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_4-6					
Laboratory ID:	07-019-66					
Diesel Range Organics	ND	30	NWTPH-Dx	7-19-22	7-19-22	
Lube Oil Range Organics	ND	60	NWTPH-Dx	7-19-22	7-19-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>77</i>	<i>50-150</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_4-6					
Laboratory ID:	07-019-66					
Methyl t-Butyl Ether	ND	0.00090	EPA 8260D	7-19-22	7-19-22	
n-Hexane	ND	0.0045	EPA 8260D	7-19-22	7-19-22	
Benzene	ND	0.00090	EPA 8260D	7-19-22	7-19-22	
1,2-Dichloroethane	ND	0.00090	EPA 8260D	7-19-22	7-19-22	
Toluene	ND	0.0045	EPA 8260D	7-19-22	7-19-22	
1,2-Dibromoethane	ND	0.00090	EPA 8260D	7-19-22	7-19-22	
Ethylbenzene	ND	0.00090	EPA 8260D	7-19-22	7-19-22	
m,p-Xylene	ND	0.0018	EPA 8260D	7-19-22	7-19-22	
o-Xylene	ND	0.00090	EPA 8260D	7-19-22	7-19-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>75-130</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>71-130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_0-2					
Laboratory ID:	07-019-37					
Naphthalene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.0080	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.012	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.0083	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.020	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.018	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.024	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.013	0.0034	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.024	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.038	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	0.0099	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.018	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.019	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.026	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>73</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>80</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_4-6					
Laboratory ID:	07-019-39					
Naphthalene	0.48	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.34	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.16	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.67	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	0.036	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	0.18	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	4.3	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	1.4	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	11	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	11	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	5.4	0.074	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	5.0	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	5.1	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	1.8	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	5.6	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	3.0	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	0.56	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	3.0	0.15	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>67</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_8-10					
Laboratory ID:	07-019-41					
Naphthalene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	ND	0.0041	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	ND	0.0082	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	66	42 - 116				
Pyrene-d10	75	41 - 116				
Terphenyl-d14	85	49 - 130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-51_0-2					
Laboratory ID:	07-019-46					
Naphthalene	0.0079	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.025	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.044	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.039	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.019	0.0034	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.017	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.022	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.018	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.013	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.012	0.0068	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>64</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>74</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-51_6-8					
Laboratory ID:	07-019-49					
Naphthalene	0.29	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.53	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.36	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.022	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	0.026	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.15	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.053	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.10	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.13	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.065	0.0039	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.068	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.065	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	0.023	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.065	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.036	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.036	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>68</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>70</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-51_10-12					
Laboratory ID:	07-019-51					
Naphthalene	0.046	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.061	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.066	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.020	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.012	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.012	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	ND	0.0040	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	ND	0.0081	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>71</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>81</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_0-2					
Laboratory ID:	07-019-55					
Naphthalene	ND	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.011	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	ND	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.033	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.020	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.040	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.092	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.16	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.095	0.0034	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.091	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.14	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	0.054	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.14	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.11	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	0.023	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.13	0.0069	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>64</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>73</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_4-6					
Laboratory ID:	07-019-57					
Naphthalene	0.12	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.23	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.12	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.031	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	0.0099	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	0.029	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.14	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.043	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.13	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.17	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.074	0.0036	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.079	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.094	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	0.024	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.093	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.080	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	0.011	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.11	0.0072	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>71</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_8-10					
Laboratory ID:	07-019-59					
Naphthalene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	ND	0.014	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	ND	0.028	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	63	42 - 116				
Pyrene-d10	76	41 - 116				
Terphenyl-d14	82	49 - 130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_0-2					
Laboratory ID:	07-019-64					
Naphthalene	0.0080	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.012	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.0070	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.015	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.010	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.026	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.015	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.018	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.011	0.0035	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.011	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.016	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.013	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.013	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.029	0.0070	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>86</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_2-4					
Laboratory ID:	07-019-65					
Naphthalene	0.089	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.19	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.11	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.034	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	0.035	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	0.058	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.080	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.057	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.086	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.20	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.051	0.0038	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.094	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.070	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.070	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.047	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	0.010	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.061	0.0076	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>78</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>82</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_4-6					
Laboratory ID:	07-019-66					
Naphthalene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	ND	0.0040	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	ND	0.0079	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	68	42 - 116				
Pyrene-d10	72	41 - 116				
Terphenyl-d14	64	49 - 130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_8-10					
Laboratory ID:	07-019-68					
Naphthalene	ND	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.021	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.0097	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.016	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	ND	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	ND	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.017	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.025	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.037	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.040	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.024	0.0047	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.029	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.053	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	0.013	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.027	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.031	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.039	0.0094	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	63	42 - 116				
Pyrene-d10	76	41 - 116				
Terphenyl-d14	85	49 - 130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-DUP-1					
Laboratory ID:	07-019-74					
Naphthalene	0.41	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
2-Methylnaphthalene	0.63	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	0.46	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.029	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	0.021	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	0.031	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.18	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.063	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.13	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.14	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.084	0.0044	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.079	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.077	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	0.026	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.078	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.048	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	0.010	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.050	0.0087	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>83</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-DUP-2					
Laboratory ID:	07-019-75					
Naphthalene	ND	0.10	EPA 8270E/SIM	7-19-22	7-20-22	U1
2-Methylnaphthalene	1.9	0.074	EPA 8270E/SIM	7-19-22	7-20-22	
1-Methylnaphthalene	6.5	0.074	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthylene	0.20	0.074	EPA 8270E/SIM	7-19-22	7-20-22	
Acenaphthene	0.42	0.074	EPA 8270E/SIM	7-19-22	7-20-22	
Fluorene	0.89	0.074	EPA 8270E/SIM	7-19-22	7-20-22	
Phenanthrene	0.69	0.074	EPA 8270E/SIM	7-19-22	7-20-22	
Anthracene	0.11	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Fluoranthene	0.050	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Pyrene	0.077	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]anthracene	0.015	0.0037	EPA 8270E/SIM	7-19-22	7-20-22	
Chrysene	0.045	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[b]fluoranthene	0.031	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo(j,k)fluoranthene	ND	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[a]pyrene	0.016	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Indeno(1,2,3-c,d)pyrene	0.020	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Dibenz[a,h]anthracene	ND	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
Benzo[g,h,i]perylene	0.028	0.0074	EPA 8270E/SIM	7-19-22	7-20-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>98</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>104</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>76</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-50_0-2					
Laboratory ID:	07-019-37					
Arsenic	ND	10	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.51	EPA 6010D	7-21-22	7-22-22	
Chromium	33	0.51	EPA 6010D	7-21-22	7-22-22	
Lead	6.0	5.1	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.051	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-50_4-6					
Laboratory ID:	07-019-39					
Arsenic	ND	11	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.56	EPA 6010D	7-21-22	7-22-22	
Chromium	13	0.56	EPA 6010D	7-21-22	7-22-22	
Lead	14	5.6	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.056	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-50_8-10					
Laboratory ID:	07-019-41					
Arsenic	ND	12	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.62	EPA 6010D	7-21-22	7-22-22	
Chromium	15	0.62	EPA 6010D	7-21-22	7-22-22	
Lead	ND	6.2	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.062	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-51_0-2					
Laboratory ID:	07-019-46					
Arsenic	ND	10	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.51	EPA 6010D	7-21-22	7-22-22	
Chromium	19	0.51	EPA 6010D	7-21-22	7-22-22	
Lead	6.1	5.1	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.051	EPA 7471B	7-20-22	7-21-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-51_6-8					
Laboratory ID:	07-019-49					
Arsenic	ND	12	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.59	EPA 6010D	7-21-22	7-22-22	
Chromium	18	0.59	EPA 6010D	7-21-22	7-22-22	
Lead	11	5.9	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.059	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-51_10-12					
Laboratory ID:	07-019-51					
Arsenic	ND	12	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.61	EPA 6010D	7-21-22	7-22-22	
Chromium	16	0.61	EPA 6010D	7-21-22	7-22-22	
Lead	ND	6.1	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.061	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-52_0-2					
Laboratory ID:	07-019-55					
Arsenic	ND	10	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.52	EPA 6010D	7-21-22	7-22-22	
Chromium	31	0.52	EPA 6010D	7-21-22	7-22-22	
Lead	9.9	5.2	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.052	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-52_4-6					
Laboratory ID:	07-019-57					
Arsenic	ND	11	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.54	EPA 6010D	7-21-22	7-22-22	
Chromium	32	0.54	EPA 6010D	7-21-22	7-22-22	
Lead	37	5.4	EPA 6010D	7-21-22	7-22-22	
Mercury	0.064	0.054	EPA 7471B	7-20-22	7-21-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-52_8-10					
Laboratory ID:	07-019-59					
Arsenic	ND	21	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	2.1	EPA 6010D	7-21-22	7-22-22	
Chromium	22	2.1	EPA 6010D	7-21-22	7-22-22	
Lead	ND	21	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.062	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-53_0-2					
Laboratory ID:	07-019-64					
Arsenic	ND	10	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.52	EPA 6010D	7-21-22	7-22-22	
Chromium	20	0.52	EPA 6010D	7-21-22	7-22-22	
Lead	11	5.2	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.052	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-53_2-4					
Laboratory ID:	07-019-65					
Arsenic	ND	11	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.57	EPA 6010D	7-21-22	7-22-22	
Chromium	21	0.57	EPA 6010D	7-21-22	7-22-22	
Lead	16	5.7	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.057	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-53_4-6					
Laboratory ID:	07-019-66					
Arsenic	ND	12	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.60	EPA 6010D	7-21-22	7-22-22	
Chromium	25	0.60	EPA 6010D	7-21-22	7-22-22	
Lead	ND	6.0	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.060	EPA 7471B	7-20-22	7-21-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GEI-53_8-10					
Laboratory ID:	07-019-68					
Arsenic	ND	14	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.71	EPA 6010D	7-21-22	7-22-22	
Chromium	26	0.71	EPA 6010D	7-21-22	7-22-22	
Lead	ND	7.1	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.064	EPA 7471B	7-20-22	7-21-22	

Client ID:	GEI-DUP-1					
Laboratory ID:	07-019-74					
Arsenic	ND	13	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.65	EPA 6010D	7-21-22	7-22-22	
Chromium	20	0.65	EPA 6010D	7-21-22	7-22-22	
Lead	32	6.5	EPA 6010D	7-21-22	7-22-22	
Mercury	ND	0.065	EPA 7471B	7-20-22	7-21-22	



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0706S1					
Gasoline	ND	5.0	NWTPH-Gx	7-6-22	7-6-22	
Surrogate:	<i>Percent Recovery</i>		<i>Control Limits</i>			
Fluorobenzene	94	69-130				
Laboratory ID:	MB0706S3					
Gasoline	ND	5.0	NWTPH-Gx	7-6-22	7-6-22	
Surrogate:	<i>Percent Recovery</i>		<i>Control Limits</i>			
Fluorobenzene	83	69-130				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-019-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
Surrogate:								
Fluorobenzene				83	83	69-130		
Laboratory ID:	07-019-07							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
Surrogate:								
Fluorobenzene				93	94	69-130		



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx
 CONTINUING CALIBRATION SUMMARY**

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCVD0706G-1	5.00	4.69	6	+/- 20%
CCVD0706G-2	5.00	4.63	7	+/- 20%
CCVD0707G-1	5.00	4.66	7	+/- 20%
CCVH0706G-1	2.50	2.65	-6	+/- 20%
CCVH0706G-4	2.50	2.76	-10	+/- 20%
CCVH0707G-1	2.50	2.56	-2	+/- 20%
CCVH0708G-1	2.50	2.77	-11	+/- 20%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0707S1					
Diesel Range Organics	ND	25	NWTPH-Dx	7-7-22	7-8-22	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-7-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	67	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-019-17							
	ORIG	DUP						
Diesel Range Organics	25.6	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range Organics	66.7	53.3	NA	NA	NA	NA	22	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				60	86	50-150		
Laboratory ID:	07-019-19							
	ORIG	DUP						
Diesel Range Organics	1210	973	NA	NA	NA	NA	22	NA
Lube Oil	3720	3040	NA	NA	NA	NA	20	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				---	---	50-150	S,S	



Date of Report: July 28, 2022
Samples Submitted: July 6, 2022
Laboratory Reference: 2207-019
Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY**

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0707R-V3	100	98.6	1.4	+/-15%
CCV0707R-V4	100	98.2	1.8	+/-15%
CCV0707R-T3	100	101.7	-1.7	+/-15%
CCV0707R-T4	100	98.7	1.3	+/-15%
CCV0708R-V1	100	94.0	6.0	+/-15%
CCV0708R-V2	100	97.9	2.1	+/-15%
CCV0708R-T1	100	100.2	-0.2	+/-15%
CCV0708R-T2	100	105.0	-5.0	+/-15%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0707S1					
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	7-7-22	7-7-22	
n-Hexane	ND	0.0050	EPA 8260D	7-7-22	7-7-22	
Benzene	ND	0.0010	EPA 8260D	7-7-22	7-7-22	
1,2-Dichloroethane	ND	0.00050	EPA 8260D	7-7-22	7-7-22	
Toluene	ND	0.0050	EPA 8260D	7-7-22	7-7-22	
1,2-Dibromoethane	ND	0.00050	EPA 8260D	7-7-22	7-7-22	
Ethylbenzene	ND	0.0010	EPA 8260D	7-7-22	7-7-22	
m,p-Xylene	ND	0.0020	EPA 8260D	7-7-22	7-7-22	
o-Xylene	ND	0.0010	EPA 8260D	7-7-22	7-7-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	99	75-130				
<i>Toluene-d8</i>	102	78-128				
<i>4-Bromofluorobenzene</i>	100	71-130				
Laboratory ID:	MB0708S1					
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	7-8-22	7-8-22	
n-Hexane	ND	0.0050	EPA 8260D	7-8-22	7-8-22	
Benzene	ND	0.0010	EPA 8260D	7-8-22	7-8-22	
1,2-Dichloroethane	ND	0.00050	EPA 8260D	7-8-22	7-8-22	
Toluene	ND	0.0050	EPA 8260D	7-8-22	7-8-22	
1,2-Dibromoethane	ND	0.00050	EPA 8260D	7-8-22	7-8-22	
Ethylbenzene	ND	0.0010	EPA 8260D	7-8-22	7-8-22	
m,p-Xylene	ND	0.0020	EPA 8260D	7-8-22	7-8-22	
o-Xylene	ND	0.0010	EPA 8260D	7-8-22	7-8-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-130				
<i>Toluene-d8</i>	100	78-128				
<i>4-Bromofluorobenzene</i>	101	71-130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0707S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0524	0.0545	0.0500	0.0500	105	109	75-129	4	19	
Benzene	0.0495	0.0511	0.0500	0.0500	99	102	80-122	3	18	
Trichloroethene	0.0508	0.0519	0.0500	0.0500	102	104	80-129	2	18	
Toluene	0.0514	0.0515	0.0500	0.0500	103	103	80-120	0	18	
Chlorobenzene	0.0489	0.0500	0.0500	0.0500	98	100	80-120	2	18	
<i>Surrogate:</i>										
Dibromofluoromethane					97	98	75-130			
Toluene-d8					103	102	78-128			
4-Bromofluorobenzene					104	103	71-130			
Laboratory ID:	SB0708S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0518	0.0524	0.0500	0.0500	104	105	75-129	1	19	
Benzene	0.0499	0.0502	0.0500	0.0500	100	100	80-122	1	18	
Trichloroethene	0.0503	0.0512	0.0500	0.0500	101	102	80-129	2	18	
Toluene	0.0511	0.0511	0.0500	0.0500	102	102	80-120	0	18	
Chlorobenzene	0.0490	0.0493	0.0500	0.0500	98	99	80-120	1	18	
<i>Surrogate:</i>										
Dibromofluoromethane					95	97	75-130			
Toluene-d8					101	102	78-128			
4-Bromofluorobenzene					103	104	71-130			



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0706SM2					
Arsenic	ND	5.0	EPA 6010D	7-6-22	7-7-22	
Cadmium	ND	0.50	EPA 6010D	7-6-22	7-7-22	
Chromium	ND	0.50	EPA 6010D	7-6-22	7-7-22	
Laboratory ID:	MB0707S1					
Mercury	ND	0.018	EPA 7471B	7-8-22	7-8-22	
Laboratory ID:	MB0707SM2					
Lead	ND	5.0	EPA 6010D	7-7-22	7-7-22	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags		
DUPLICATE										
Laboratory ID:	07-019-01									
	ORIG	DUP								
Arsenic	ND	ND	NA	NA	NA	NA	20			
Cadmium	ND	ND	NA	NA	NA	NA	20			
Chromium	31.1	35.5	NA	NA	NA	13	20			
Laboratory ID:	07-019-01									
Mercury	0.0374	0.0534	NA	NA	NA	35	20	C		
Laboratory ID:	07-019-01									
	ORIG	DUP								
Lead	42.9	42.7	NA	NA	NA	1	20			
MATRIX SPIKES										
Laboratory ID:	07-019-01									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	103	103	100	100	ND	103	103	75-125	1	20
Cadmium	46.1	46.6	50.0	50.0	ND	92	93	75-125	1	20
Chromium	128	130	100	100	31.1	97	99	75-125	2	20
Laboratory ID:	07-019-01									
Mercury	0.522	0.568	0.500	0.500	0.0374	97	106	80-120	8	20
Laboratory ID:	07-019-01									
	MS	MSD	MS	MSD	MS	MSD				
Lead	282	277	250	250	42.9	96	94	75-125	2	20



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B
 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
Arsenic	ICV070722B	1.00	0.974	2.6	+/- 10%
Cadmium	ICV070722B	1.00	0.923	7.7	+/- 10%
Chromium	ICV070722B	1.00	1.02	-2.0	+/- 10%
Lead	ICV070722B	1.00	1.05	-5.0	+/- 10%
Mercury	ICV070722Y	0.00500	0.00486	2.8	+/- 10%
Arsenic	LLV070722B	0.0500	0.0540	-8.0	+/- 20%
Cadmium	LLV102121B	0.00500	0.00511	-2.2	+/- 20%
Chromium	LLV102121B	0.0100	0.00876	12	+/- 20%
Lead	LLV102121B	0.100	0.108	-8.0	+/- 20%
Arsenic	CCV1070722B	5.00	4.92	1.6	+/- 10%
Cadmium	CCV1070722B	0.500	0.513	-2.6	+/- 10%
Chromium	CCV1070722B	1.00	0.989	1.1	+/- 10%
Lead	CCV1070722B	10.0	10.1	-1.0	+/- 10%
Mercury	CCV1070722Y	0.00500	0.00491	1.8	+/- 10%
Arsenic	CCV2070722B	5.00	5.09	-1.8	+/- 10%
Cadmium	CCV2070722B	0.500	0.530	-6.0	+/- 10%
Chromium	CCV2070722B	1.00	1.02	-2.0	+/- 10%
Lead	CCV2070722B	10.0	10.4	-4.0	+/- 10%
Mercury	CCV2070722Y	0.00500	0.00492	1.6	+/- 10%
Arsenic	CCV3070722B	5.00	5.22	-4.4	+/- 10%
Cadmium	CCV3070722B	0.500	0.534	-6.8	+/- 10%
Chromium	CCV3070722B	1.00	1.04	-4.0	+/- 10%
Lead	CCV3070722B	10.0	10.4	-4.0	+/- 10%
Mercury	CCV3070722Y	0.00500	0.00481	3.8	+/- 10%
Arsenic	CCV4070722B	5.00	4.88	2.4	+/- 10%
Cadmium	CCV4070722B	0.500	0.509	-1.8	+/- 10%
Chromium	CCV4070722B	1.00	0.986	1.4	+/- 10%
Lead	CCV4070722B	10.0	9.93	0.70	+/- 10%
Mercury	CCV4070722Y	0.00500	0.00483	3.4	+/- 10%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B
 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
Arsenic	CCV5070722B	5.00	5.05	-1.0	+/- 10%
Cadmium	CCV5070722B	0.500	0.516	-3.2	+/- 10%
Chromium	CCV5070722B	1.00	1.01	-1.0	+/- 10%
Lead	CCV5070722B	10.0	10.0	0	+/- 10%
Lead	CCV6070722B	10.0	10.1	-1.0	+/- 10%
Lead	CCV7070722B	10.0	10.1	-1.0	+/- 10%
Lead	CCV8070722B	10.0	10.1	-1.0	+/- 10%
Lead	CCV9070722B	10.0	10.2	-2.0	+/- 10%
Lead	CCV10070722B	10.0	10.3	-3.0	+/- 10%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0711S1					
Gasoline	ND	5.0	NWTPH-Gx	7-11-22	7-11-22	
Surrogate:	<i>Percent Recovery</i>		<i>Control Limits</i>			
Fluorobenzene	79	69-130				
Laboratory ID:	MB0711S2					
Gasoline	ND	5.0	NWTPH-Gx	7-11-22	7-11-22	
Surrogate:	<i>Percent Recovery</i>		<i>Control Limits</i>			
Fluorobenzene	93	69-130				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-004-03							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
Surrogate:								
Fluorobenzene				102	98	69-130		
Laboratory ID:	07-019-37							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
Surrogate:								
Fluorobenzene				89	90	69-130		



Date of Report: July 28, 2022
Samples Submitted: July 6, 2022
Laboratory Reference: 2207-019
Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
NWTPH-Gx
CONTINUING CALIBRATION SUMMARY**

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCVD0711G-1	5.00	4.68	6	+/- 20%
CCVD0711G-2	5.00	4.63	7	+/- 20%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0713S1					
Diesel Range Organics	ND	25	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-13-22	7-13-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0713S1							
	ORIG	DUP						
Diesel Fuel #2	82.4	81.7	NA	NA	NA	NA	1	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				87	91	50-150		
Laboratory ID:	07-019-37							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil	309	202	NA	NA	NA	NA	42	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				85	88	50-150		



Date of Report: July 28, 2022
Samples Submitted: July 6, 2022
Laboratory Reference: 2207-019
Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY**

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0713R-V2	100	96.0	4.0	+/-15%
CCV0713R-V3	100	93.8	6.2	+/-15%
CCV0713R-V4	100	97.3	2.7	+/-15%
CCV0713F-T2	100	105.7	-5.7	+/-15%
CCV0713F-T3	100	105.6	-5.6	+/-15%
CCV0713R-T1	100	102.0	-2.0	+/-15%
CCV0713R-T2	100	99.1	0.9	+/-15%
CCV0713R-T3	100	97.6	2.4	+/-15%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0712S1					
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
n-Hexane	ND	0.0050	EPA 8260D	7-12-22	7-12-22	
Benzene	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
1,2-Dichloroethane	ND	0.00050	EPA 8260D	7-12-22	7-12-22	
Toluene	ND	0.0050	EPA 8260D	7-12-22	7-12-22	
1,2-Dibromoethane	ND	0.00050	EPA 8260D	7-12-22	7-12-22	
Ethylbenzene	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
m,p-Xylene	ND	0.0020	EPA 8260D	7-12-22	7-12-22	
o-Xylene	ND	0.0010	EPA 8260D	7-12-22	7-12-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-130</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>71-130</i>				

Analyte	Result	Spike Level	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS							
Laboratory ID:	SB0712S1						
	SB	SBD	SB	SBD	SB	SBD	
1,1-Dichloroethene	0.0585	0.0583	0.0500	0.0500	117	117	75-129 0 19
Benzene	0.0562	0.0569	0.0500	0.0500	112	114	80-122 1 18
Trichloroethene	0.0550	0.0549	0.0500	0.0500	110	110	80-129 0 18
Toluene	0.0547	0.0551	0.0500	0.0500	109	110	80-120 1 18
Chlorobenzene	0.0502	0.0516	0.0500	0.0500	100	103	80-120 3 18
<i>Surrogate:</i>							
<i>Dibromofluoromethane</i>					<i>102</i>	<i>102</i>	<i>75-130</i>
<i>Toluene-d8</i>					<i>103</i>	<i>104</i>	<i>78-128</i>
<i>4-Bromofluorobenzene</i>					<i>101</i>	<i>104</i>	<i>71-130</i>



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0712S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Fluorene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Anthracene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Pyrene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[a]anthracene	ND	0.0033	EPA 8270E/SIM	7-12-22	7-12-22	
Chrysene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	7-12-22	7-12-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	68	42 - 116				
Pyrene-d10	72	41 - 116				
Terphenyl-d14	84	49 - 130				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0712S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.0609	0.0627	0.0833	0.0833	73	75	60 - 117	3	19	
Acenaphthylene	0.0637	0.0639	0.0833	0.0833	76	77	68 - 129	0	15	
Acenaphthene	0.0641	0.0647	0.0833	0.0833	77	78	67 - 127	1	15	
Fluorene	0.0633	0.0630	0.0833	0.0833	76	76	69 - 128	0	15	
Phenanthrene	0.0655	0.0652	0.0833	0.0833	79	78	70 - 126	0	15	
Anthracene	0.0729	0.0728	0.0833	0.0833	88	87	72 - 130	0	15	
Fluoranthene	0.0652	0.0661	0.0833	0.0833	78	79	70 - 135	1	15	
Pyrene	0.0654	0.0651	0.0833	0.0833	79	78	62 - 134	0	15	
Benzo[a]anthracene	0.0752	0.0754	0.0833	0.0833	90	91	73 - 128	0	15	
Chrysene	0.0651	0.0644	0.0833	0.0833	78	77	73 - 131	1	15	
Benzo[b]fluoranthene	0.0615	0.0631	0.0833	0.0833	74	76	72 - 134	3	15	
Benzo(j,k)fluoranthene	0.0679	0.0657	0.0833	0.0833	82	79	59 - 140	3	16	
Benzo[a]pyrene	0.0661	0.0658	0.0833	0.0833	79	79	70 - 135	0	15	
Indeno(1,2,3-c,d)pyrene	0.0680	0.0655	0.0833	0.0833	82	79	70 - 132	4	15	
Dibenz[a,h]anthracene	0.0655	0.0652	0.0833	0.0833	79	78	70 - 132	0	15	
Benzo[g,h,i]perylene	0.0642	0.0641	0.0833	0.0833	77	77	70 - 131	0	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					69	71	42 - 116			
Pyrene-d10					73	74	41 - 116			
Terphenyl-d14					85	86	49 - 130			



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
 NWTPH-Gx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0719S1					
Gasoline	ND	5.0	NWTPH-Gx	7-19-22	7-19-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	83	69-130				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-019-66							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				88	89	69-130		



Date of Report: July 28, 2022
Samples Submitted: July 6, 2022
Laboratory Reference: 2207-019
Project: 5147-024-13 T200

**GASOLINE RANGE ORGANICS
NWTPH-Gx
CONTINUING CALIBRATION SUMMARY**

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCVH0719G-1	2.50	2.70	-8	+/- 20%
CCVH0719G-2	2.50	2.60	-4	+/- 20%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0719S2					
Diesel Range Organics	ND	25	NWTPH-Dx	7-19-22	7-19-22	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-19-22	7-19-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0719S2							
	ORIG	DUP						
Diesel Fuel #2	81.3	75.2	NA	NA	NA	NA	8	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				85	75	50-150		



Date of Report: July 28, 2022
Samples Submitted: July 6, 2022
Laboratory Reference: 2207-019
Project: 5147-024-13 T200

**DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY**

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0719F-T1	100	103.6	-3.6	+/-15%
CCV0719F-T2	100	103.2	-3.2	+/-15%
CCV0719F-V1	100	90.9	9.1	+/-15%
CCV0719F-V2	100	95.5	4.5	+/-15%
CCV0719R-V1	100	96.2	3.8	+/-15%
CCV0719R-V2	100	96.0	4.0	+/-15%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0719S1					
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	7-19-22	7-19-22	
n-Hexane	ND	0.0050	EPA 8260D	7-19-22	7-19-22	
Benzene	ND	0.0010	EPA 8260D	7-19-22	7-19-22	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	7-19-22	7-19-22	
Toluene	ND	0.0050	EPA 8260D	7-19-22	7-19-22	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	7-19-22	7-19-22	
Ethylbenzene	ND	0.0010	EPA 8260D	7-19-22	7-19-22	
m,p-Xylene	ND	0.0020	EPA 8260D	7-19-22	7-19-22	
o-Xylene	ND	0.0010	EPA 8260D	7-19-22	7-19-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>75-130</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>				

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0719S1									
	SB	SBD	SB	SBD	SB	SBD				
Methyl t-Butyl Ether	0.0548	0.0535	0.0500	0.0500	110	107	73-125	2	17	
Benzene	0.0528	0.0528	0.0500	0.0500	106	106	80-122	0	18	
1,2-Dichloroethane	0.0567	0.0559	0.0500	0.0500	113	112	75-124	1	15	
Toluene	0.0501	0.0510	0.0500	0.0500	100	102	80-120	2	18	
1,2-Dibromoethane	0.0475	0.0489	0.0500	0.0500	95	98	80-122	3	20	
Ethylbenzene	0.0490	0.0515	0.0500	0.0500	98	103	80-120	5	15	
m,p-Xylene	0.0974	0.104	0.100	0.100	97	104	80-120	7	15	
o-Xylene	0.0491	0.0523	0.0500	0.0500	98	105	80-120	6	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>112</i>	<i>111</i>	<i>75-130</i>			
<i>Toluene-d8</i>					<i>99</i>	<i>99</i>	<i>78-128</i>			
<i>4-Bromofluorobenzene</i>					<i>102</i>	<i>109</i>	<i>71-130</i>			



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0719S1					
Naphthalene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
2-Methylnaphthalene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
1-Methylnaphthalene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Acenaphthylene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Acenaphthene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Fluorene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Phenanthrene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Anthracene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Fluoranthene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Pyrene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Benzo[a]anthracene	ND	0.0017	EPA 8270E/SIM	7-19-22	7-19-22	
Chrysene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Benzo[b]fluoranthene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Benzo(j,k)fluoranthene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Benzo[a]pyrene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Indeno(1,2,3-c,d)pyrene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Dibenz[a,h]anthracene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
Benzo[g,h,i]perylene	ND	0.0033	EPA 8270E/SIM	7-19-22	7-19-22	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>66</i>	<i>42 - 116</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>41 - 116</i>				
<i>Terphenyl-d14</i>	<i>86</i>	<i>49 - 130</i>				



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	SB	SBD	SB	SBD	SB	SBD				
SPIKE BLANKS										
Laboratory ID:	SB0719S1									
Naphthalene	0.0545	0.0563	0.0833	0.0833	65	68	60 - 117	3	19	
Acenaphthylene	0.0692	0.0677	0.0833	0.0833	83	81	68 - 129	2	15	
Acenaphthene	0.0691	0.0674	0.0833	0.0833	83	81	67 - 127	2	15	
Fluorene	0.0640	0.0642	0.0833	0.0833	77	77	69 - 128	0	15	
Phenanthrene	0.0659	0.0650	0.0833	0.0833	79	78	70 - 126	1	15	
Anthracene	0.0761	0.0747	0.0833	0.0833	91	90	72 - 130	2	15	
Fluoranthene	0.0636	0.0663	0.0833	0.0833	76	80	70 - 135	4	15	
Pyrene	0.0641	0.0605	0.0833	0.0833	77	73	62 - 134	6	15	
Benzo[a]anthracene	0.0724	0.0718	0.0833	0.0833	87	86	73 - 128	1	15	
Chrysene	0.0695	0.0683	0.0833	0.0833	83	82	73 - 131	2	15	
Benzo[b]fluoranthene	0.0703	0.0651	0.0833	0.0833	84	78	72 - 134	8	15	
Benzo(j,k)fluoranthene	0.0664	0.0693	0.0833	0.0833	80	83	59 - 140	4	16	
Benzo[a]pyrene	0.0696	0.0691	0.0833	0.0833	84	83	70 - 135	1	15	
Indeno(1,2,3-c,d)pyrene	0.0704	0.0694	0.0833	0.0833	85	83	70 - 132	1	15	
Dibenz[a,h]anthracene	0.0694	0.0692	0.0833	0.0833	83	83	70 - 132	0	15	
Benzo[g,h,i]perylene	0.0672	0.0667	0.0833	0.0833	81	80	70 - 131	1	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					75	73	42 - 116			
Pyrene-d10					69	70	41 - 116			
Terphenyl-d14					66	70	49 - 130			



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0721SM1					
Arsenic	ND	5.0	EPA 6010D	7-21-22	7-22-22	
Cadmium	ND	0.50	EPA 6010D	7-21-22	7-22-22	
Chromium	ND	0.50	EPA 6010D	7-21-22	7-22-22	
Lead	ND	5.0	EPA 6010D	7-21-22	7-22-22	

Laboratory ID:	MB0720S1					
Mercury	ND	0.015	EPA 7471B	7-21-22	7-21-22	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-019-37							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	31.8	31.9	NA	NA	NA	NA	0	20
Lead	5.90	5.95	NA	NA	NA	NA	1	20

Laboratory ID:	07-019-37							
Mercury	ND	ND	NA	NA	NA	NA	NA	20

MATRIX SPIKES

Laboratory ID:	07-019-37									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	103	99.7	100	100	ND	103	100	75-125	3	20
Cadmium	46.8	45.4	50.0	50.0	ND	94	91	75-125	3	20
Chromium	116	123	100	100	31.8	84	92	75-125	7	20
Lead	251	242	250	250	5.90	98	95	75-125	4	20

Laboratory ID:	07-019-37									
Mercury	0.503	0.506	0.500	0.500	0.0188	97	97	80-120	1	20



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

**TOTAL METALS
 EPA 6010D/7471B
 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
Arsenic	ICV072222B	1.00	1.04	-4.0	+/- 10%
Cadmium	ICV072222B	1.00	0.973	2.7	+/- 10%
Chromium	ICV072222B	1.00	1.01	-1.0	+/- 10%
Lead	ICV072222B	1.00	1.04	-4.0	+/- 10%
Mercury	ICV072122Y	0.00500	0.00456	8.8	+/- 10%
Arsenic	LLV072222B	0.0500	0.0514	-2.8	+/- 20%
Cadmium	LLV072222B	0.00500	0.00561	-12	+/- 20%
Chromium	LLV072222B	0.0100	0.0102	-2.0	+/- 20%
Lead	LLV072222B	0.100	0.108	-8.0	+/- 20%
Arsenic	CCV1072222B	5.00	5.00	0	+/- 10%
Cadmium	CCV1072222B	0.500	0.514	-2.8	+/- 10%
Chromium	CCV1072222B	1.00	0.983	1.7	+/- 10%
Lead	CCV1072222B	10.0	10.0	0	+/- 10%
Mercury	CCV1072122Y	0.00500	0.00478	4.4	+/- 10%
Arsenic	CCV2072222B	5.00	5.19	-3.8	+/- 10%
Cadmium	CCV2072222B	0.500	0.521	-4.2	+/- 10%
Chromium	CCV2072222B	1.00	1.01	-1.0	+/- 10%
Lead	CCV2072222B	10.0	10.2	-2.0	+/- 10%
Mercury	CCV2072122Y	0.00500	0.00491	1.8	+/- 10%
Arsenic	CCV3072222B	5.00	5.28	-5.6	+/- 10%
Cadmium	CCV3070722B	0.500	0.525	-5.0	+/- 10%
Chromium	CCV3070722B	1.00	1.02	-2.0	+/- 10%
Lead	CCV3070722B	10.0	10.3	-3.0	+/- 10%
Mercury	CCV3070722Y	0.00500	0.00491	1.8	+/- 10%
Arsenic	CCV4072222B	5.00	5.34	-6.8	+/- 10%
Cadmium	CCV4072222B	0.500	0.528	-5.6	+/- 10%
Chromium	CCV4072222B	1.00	1.02	-2.0	+/- 10%
Lead	CCV4072222B	10.0	10.3	-3.0	+/- 10%
Mercury	CCV4072122Y	0.00500	0.00488	2.4	+/- 10%
Mercury	CCV4072122Y	0.00500	0.00495	1.0	+/- 10%



Date of Report: July 28, 2022
 Samples Submitted: July 6, 2022
 Laboratory Reference: 2207-019
 Project: 5147-024-13 T200

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
GEI-46_0-2	07-019-01	3	7-7-22
GEI-46_6-8	07-019-04	10	7-7-22
GEI-46_12-14	07-019-07	17	7-7-22
GEI-46_16-18	07-019-09	13	7-7-22
GEI-47_0-2	07-019-10	3	7-7-22
GEI-47_4-6	07-019-12	14	7-7-22
GEI-47_10-12	07-019-15	16	7-7-22
GEI-47_14-16	07-019-17	6	7-7-22
GEI-48_0-2	07-019-19	2	7-7-22
GEI-48_4-6	07-019-21	10	7-7-22
GEI-48_10-12	07-019-24	18	7-7-22
GEI-48_16-18	07-019-27	13	7-7-22
GEI-49_0-2	07-019-28	6	7-7-22
GEI-49_4-6	07-019-30	10	7-7-22
GEI-49_8-10	07-019-32	73	7-7-22
GEI-49_14-16	07-019-35	16	7-7-22
GEI-50_0-2	07-019-37	2	7-12-22
GEI-50_4-6	07-019-39	10	7-12-22
GEI-50_8-10	07-019-41	19	7-12-22
GEI-51_0-2	07-019-46	3	7-12-22
GEI-51_6-8	07-019-49	15	7-12-22
GEI-51_10-12	07-019-51	18	7-12-22
GEI-52_0-2	07-019-55	3	7-12-22
GEI-52_4-6	07-019-57	8	7-12-22
GEI-52_8-10	07-019-59	76	7-12-22
GEI-53_0-2	07-019-64	4	7-12-22
GEI-53_2-4	07-019-65	12	7-12-22



Date of Report: July 28, 2022
Samples Submitted: July 6, 2022
Laboratory Reference: 2207-019
Project: 5147-024-13 T200

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
GEI-53_4-6	07-019-66	16	7-20-22
GEI-53_8-10	07-019-68	29	7-12-22
GEI-DUP-1	07-019-74	24	7-12-22
GEI-DUP-2	07-019-75	10	7-7-22





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





Onsite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Terraround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Company: GVL

Project Number: 5147-024-13 T200

Project Name: Quiet Cove

Project Manager: Brian Terry

Sampled by: Mike Merritt

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	GVL-410-0-2	7/5/22	1550	S	5
2	GVL-410-2-4		1555		
3	GVL-410-4-10		1600		
4	GVL-410-10-8		1605		
5	GVL-410-8-10		1610		
6	GVL-410-10-12		1615		
7	GVL-410-12-14		1620		
8	GVL-410-14-16		1625		
9	GVL-410-16-18		1630		
10	GVL-410-18-20		1635		

Laboratory Number: 07-019	
NWTPH-HCID	
NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	
NWTPH-Gx	X X X
NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>)	
Volatiles 8260	X X X
Halogenated Volatiles 8260	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270/SIM (with low-level PAHs)	
PAHs 8270/SIM (low-level)	
PCBs 8082	
Organochlorine Pesticides 8081	
Organophosphorus Pesticides 8270/SIM	
Chlorinated Acid Herbicides 8151	
Total RCRA Metals	
Total MTCA Metals	X
TCLP Metals	
HEM (oil and grease) 1664	
Archive	
% Moisture	X

Signature	Company	Date	Time	Comments/Special Instructions
<u>[Signature]</u>	<u>GVL</u>	<u>7/6/22</u>	<u>1115</u>	<u>Note: VOCs only test for BTEX, MTBE, EDB, EDC, and n-hexane.</u>
<u>[Signature]</u>	<u>GVL</u>	<u>7/6/22</u>	<u>1115</u>	<u>- Added 7/11/22 NB (Gx+Vol-20ay) (X+PAH-5 Days)</u>

Received _____

Relinquished _____

Received _____

Relinquished _____

Received _____

Relinquished _____

Reviewed/Date _____

Reviewed/Date _____

Chromatograms with final report Electronic Data Deliverables (EDDs)



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Chain of Custody

Turnaround Request
(in working days)
(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Laboratory Number: **07-019**

Company: Guel
 Project Number: 5147-024-13 T200
 Project Name: Quist Care
 Project Manager: Perburn Terry
 Sampled by: NATE PERBURN

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers		NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input checkbox="" type="checkbox/>)</th> <th>NWTPH-Gx</th> <th>NWTPH-Dx (Acid / SG Clean-up <input type="/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture			
11	G44-47-2-4	7/5/12	1455	S	5	5			X	X	X										X	X		X	
12	G44-47-4-10		1500						X	X	X											X	X		X
13	G44-47-6-8		1505						*	*	*											*	*		X
14	G44-47-8-10		1510						*	*	*											*	*		X
15	G44-47-10-12		1515						X	X	X											X	X		X
16	G44-47-12-14		1520						X	X	X											X	X		X
17	G44-47-14-16		1525						X	X	X											X	X		X
18	G44-47-16-18		1530						X	X	X											X	X		X
19	G44-48-0-2		1305						X	X	X											X	X		X
20	G44-48-2-4		1310						X	X	X											X	X		X

Signature: _____ Company: G44 Date: 7/9/12 Time: 1115 Comments/Special Instructions: look @ pg 1

Relinquished Received Relinquished Received Relinquished Received Relinquished Received Relinquished Received

Reviewed/Date _____ Reviewed/Date _____

Data Package: Standard Level III Level IV

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Chain of Custody

Terraround Request (in working days)
 (Check One)
 Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 _____ (other)

Laboratory Number: **07-019**

Company: **ENV**
 Project Number: **5147-024-13 T200**
 Project Name: **Quiet Core**
 Project Manager: **Marian Teacy**
 Sampled by: **Nate Peret**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers		Laboratory Tests																			
					Sampled	Matrix	NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture		
21	ENV-48-4-6	7/5/12	1315	S	5	5			X	X	X									X	X					
22	ENV-48-10-8		1320	S					X	X	X									X	X					
23	ENV-48-8-10		1325	S					X	X	X									X	X					
24	ENV-48-10-12		1330	S					X	X	X									X	X					
25	ENV-48-12-14		1335	S					X	X	X									X	X					
26	ENV-48-14-10		1340	S					X	X	X									X	X					
27	ENV-48-10-18		1345	S					X	X	X									X	X					
28	ENV-49-0-2		1610	S					X	X	X									X	X					
29	ENV-49-2-4		1015	S					X	X	X									X	X					
30	ENV-49-4-6		1020	S					X	X	X									X	X					
Relinquished		Signature		Company		Date		Time		Comments/Special Instructions																
Relinquished		<i>[Signature]</i>		ENV		7/6/12		1115		* look @ pg 1 *																
Received		Signature		Company		Date		Time																		
Received		<i>[Signature]</i>		COBE		7/6/12		1118																		
Relinquished		Signature		Company		Date		Time																		
Received		<i>[Signature]</i>																								
Relinquished		Signature		Company		Date		Time																		
Received		<i>[Signature]</i>																								
Relinquished		Signature		Company		Date		Time																		
Received		<i>[Signature]</i>																								
Relinquished		Signature		Company		Date		Time																		
Received		<i>[Signature]</i>																								
Relinquished		Signature		Company		Date		Time																		
Received		<i>[Signature]</i>																								
Relinquished		Signature		Company		Date		Time																		
Received		<i>[Signature]</i>																								

Data Package: Standard Level III Level IV

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Chain of Custody

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: **07-019**

Company: GWI

Project Number: 5147-024-13 T200

Project Name: Duck Cone

Project Manager: ROBERT TEACHY

Sampled by: NATHAN BERTS

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
31	G44-49-6-8	7/5/12	1015	S	5
32	G44-49-8-10		1030		
33	G44-49-10-12		1035		
34	G44-49-12-14		1040		
35	G44-49-14-16		1045		
36	G44-49-16-18		1050		
37	G44-50-0-2		1040		
38	G44-50-2-4		1045		
39	G44-50-4-6		1050		
40	G44-50-6-8		1055		

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	Archival	% Moisture
31	G44-49-6-8	7/5/12	1015	S	5			X	X	X			●							X	X	X	X	X
32	G44-49-8-10		1030																					X
33	G44-49-10-12		1035					X	X	X											X	X	X	X
34	G44-49-12-14		1040					X	X	X											X	X	X	X
35	G44-49-14-16		1045					X	X	X			●								X	X	X	X
36	G44-49-16-18		1050																					X
37	G44-50-0-2		1040					●	●	●											⊗	⊗	⊗	X
38	G44-50-2-4		1045					●	●	●											⊗	⊗	⊗	X
39	G44-50-4-6		1050					●	●	●											⊗	⊗	⊗	X
40	G44-50-6-8		1055					●	●	●											⊗	⊗	⊗	X

Relinquished	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GWI	7/5/12	1115	BOOK @ PG 1
Received		GWI	7/6/12	1115	
Relinquished					
Received					
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date					

Data Package: Standard Level III Level IV

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Chain of Custody

Turnaround Request
(In working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Number of Containers

NWTPH-HCID	
NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	
NWTPH-Gx	●●●●
NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>)	●●●●
Volatiles 8260	●●●●
Halogenated Volatiles 8260	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270/SIM (with low-level PAHs)	⊗
PAHs 8270/SIM (low-level)	⊗
PCBs 8082	
Organochlorine Pesticides 8081	
Organophosphorus Pesticides 8270/SIM	
Chlorinated Acid Herbicides 8151	
Total RCRA Metals	
Total MTCA Metals	⊗
TCLP Metals	
HEM (oil and grease) 1664	
Archive	X
% Moisture	●

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
41	G44-50-8-10	7/5/22	1700	S	5
42	G44-50-10-12		1705		
43	G44-50-12-14		1710		
44	G44-50-14-16		1715		
45	G44-50-16-18		1720		
46	G44-51-0-2		1350		
47	G44-51-2-4		1355		
48	G44-51-4-6		1400		
49	G44-51-6-8		1405		
50	G44-51-8-10		1415		

Signature	Company	Date	Time	Comments/Special Instructions
	G44	7/5/22	1115	look @ pg 1 & 2
	COBE	7/6/22	1115	

Data Package: Standard Level III Level IV

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Chain of Custody

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: **07-019**

Company: Env

Project Number: 147-024-13 T200

Project Name: Outlet Core

Project Manager: Bruce Terry

Sampled by: NATE/MSU

Lab ID: _____ Sample Identification: _____

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
S1	G41-S1-10-12	7/8/22	1420	S	5
S2	G41-S1-12-14		1425		
S3	G41-S1-14-16		1430		
S4	G41-S1-16-18		1435		
S5	G41-S2-0-2		1350 1435		
S6	G41-S2-2-4		1350 1435		
S7	G41-S2-4-6		1405 1435		
S8	G41-S2-6-8		1405 1435		
S9	G41-S2-8-10		1415 1435		
S10	G41-S2-10-12		1420 1435		

Relinquished	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		G41	7/6/22	MS	Block pg 1*
Received					
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date					

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture
5			●	●	●				⊗					⊗	*			●
			* * *		* * *										*			●
			●	●	●										*			●
			●	●	●										*			●
			●	●	●										*			●
			●	●	●										*			●
			●	●	●										*			●
			●	●	●										*			●
			●	●	●										*			●
			●	●	●										*			●
			●	●	●										*			●

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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Chain of Custody

Turnaround Request (in working days)
(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Company: GWI
Project Number: 5147-024-13 T200
Project Name: Quilch Cove
Project Manager: Bryan Tracy
Sampled by: Nate Peters

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
61	GWI-52-12-14	7/5/12	1125	S	5
62	GWI-52-14-16		1130		
63	GWI-52-16-18		1135		
64	GWI-53-0-2		0920		
65	GWI-53-2-4		0925		
66	GWI-53-4-6		0930		
67	GWI-53-6-8		0935		
68	GWI-53-8-10		0940		
69	GWI-53-10-12		0945		
70	GWI-53-12-14		0950		

Signature: [Signature]
Company: GWI

Date	Time	Comments/Special Instructions
7/4/12	1115	WOT @ pg 2 *
7/6/12	1115	

Parameter	61	62	63	64	65	66	67	68	69	70
NWTPH-HCID										
NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>										
NWTPH-Gx	X	X	X	X	X	X	X	X	X	X
NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>										
Volatiles 8260	X	X	X	X	X	X	X	X	X	X
Halogenated Volatiles 8260										
EDB EPA 8011 (Waters Only)										
Semivolatiles 8270/SIM (with low-level PAHs)										
PAHs 8270/SIM (low-level)										
PCBs 8082										
Organochlorine Pesticides 8081										
Organophosphorus Pesticides 8270/SIM										
Chlorinated Acid Herbicides 8151										
Total RCRA Metals										
Total MTCA Metals	*	*	*	*	*	*	*	*	*	*
TCLP Metals										
HEM (oil and grease) 1664										
Archive	X	X	X	X	X	X	X	X	X	X
% Moisture										

Relinquished
Received
Relinquished
Received
Relinquished
Received
Relinquished
Received
Reviewed/Date

Signature: [Signature]
Company: GWI
Date: 7/4/12
Time: 1115
Comments/Special Instructions: WOT @ pg 2 *

Reviewed/Date

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)

Laboratory Number: 07-019



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Chain of Custody

Turnaround Request (in working days)
(Check One)

- Same Day 1 Day
- 2 Days 3 Days
- Standard (7 Days)

_____ (other)

Number of Containers

Laboratory Number: **07-019**

NWTPH-HCID	
NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	
NWTPH-Gx	
NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>)	
Volatiles 8260	
Halogenated Volatiles 8260	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270/SIM (with low-level PAHs)	
PAHs 8270/SIM (low-level)	
PCBs 8082	
Organochlorine Pesticides 8081	
Organophosphorus Pesticides 8270/SIM	
Chlorinated Acid Herbicides 8151	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664	
Architecture	
% Moisture	

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
71	644-53-14-10	7/5/2008	9:55	S
72	644-53-10-18	10:00		S
73	644-53-18-20	10:05		S
74	644-100P-1	14:10		S
75	644-DWP-2	1:00:07		S

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up <input type="checkbox"/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	Architecture	% Moisture	
71	644-53-14-10	7/5/2008	9:55	S	5																				
72	644-53-10-18	10:00		S	1																				
73	644-53-18-20	10:05		S	1																				
74	644-100P-1	14:10		S	1			X	X	X													X		
75	644-DWP-2	1:00:07		S	1			X	X	X													X		

Signature	Company	Date	Time	Comments/Special Instructions
	644	7/6/08	11:5	Must @ pg 1*

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 5147-024-13 T200

OnSite Project Number: 07-019

Initiated by: *MMV*

Date Initiated: 7/6/22

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	N/A	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	<input checked="" type="radio"/> No	N/A	Temperature: <u>7, 7, 10, 10</u>			
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A					
1.7 How were the samples delivered?	<input checked="" type="radio"/> Client	<input type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup	<input type="radio"/> Other		

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No	1	2	3	4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No	1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No	1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No	1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No	1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No	1	2	3	4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No	1	2	3	4	
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No	1	2	3	4	
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No	1	2	3	4	
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1	2	3	4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No	1	2	3	4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No	1	2	3	4	
3.8 Was method 5035A used?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	1	N/A	1	2	3	4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

ATTACHMENT 3
Laboratory Data Validation Report

Project: Port of Anacortes – Quiet Cove Property, 2nd Street ROW Soil Investigation
July 2022 Soil Samples

GEI File No: 5147-024-13

Date: August 16, 2022

This report documents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2B data validation (USEPA Document 540-R-08-005; USEPA, 2009) of analytical data from the analyses of soil samples collected as part of the July 2022 Quiet Cove Site (Site) monitoring event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Site located at 2nd Street and O Avenue in Anacortes, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020a) and Inorganic Superfund Methods Data Review (USEPA 2020b) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Interim Action Work Plan (GeoEngineers 2020) including the Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP), and the Post-Interim Action Construction Groundwater Monitoring Plan (GeoEngineers 2021), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory Duplicates
- Field Duplicates
- Instrument Tuning



- Internal Standards
- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)
- Reporting Limits
- Miscellaneous

VALIDATED SAMPLE DELIVERY GROUPS

This data validation included review of the sample delivery group (SDG) listed below in Table 1.

TABLE 1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory Sample Delivery Group (SDG)	Validated Samples
2207-019	GEI-46_0-2, GEI-46_6-8, GEI-DUP-2, GEI-46_12-14, GEI-46_16-18, GEI-47_0-2, GEI-47_4-6, GEI-47_10-12, GEI-47_14-16, GEI-48_0-2, GEI-48_4-6, GEI-48_10-12, GEI-48_16-18, GEI-49_0-2, GEI-49_4-6, GEI-49_8-10, GEI-49_14-16, GEI-50_0-2, GEI-50_4-6, GEI-50_8-10, GEI-51_0-2, GEI-51_6-8, GEI-DUP-1, GEI-51_10-12, GEI-52_0-2, GEI-52_4-6, GEI-52_8-10, GEI-53_0-2, GEI-53_2-4, GEI-53_4-6, GEI-53_8-10

CHEMICAL ANALYSIS PERFORMED

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analyses on the soil samples using one or more of the following methods:

- Gasoline-range Hydrocarbons (NWTPH-Gx) by Method NWTPH-Gx;
- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx;
- Volatile Organic Compounds (VOCs) by Method SW8260D;
- Polycyclic Aromatic Hydrocarbons (PAHs) by Method SW8270E-SIM; and
- Total and Dissolved Metals by Methods SW6010D/7471B

DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below.

Data Package Completeness

OnSite provided the required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.



Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were signed, accurate, and complete when submitted to the laboratory.

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for each analysis. The sample coolers arrived at the laboratory outside the appropriate temperatures of between 2° and 6° Celsius. The out-of-compliance sample cooler temperatures are detailed below. Sample preservation protocols were followed.

SDG 2207-019: Four sample cooler temperatures recorded at the laboratory were 7.0, 7.0, 10.0, and 10.0 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory, and just slightly above the temperature upper limit, these temperatures should likely not affect the sample analytical results.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in an environmental sample. Surrogates are used for organic analyses and are added to the samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries (%R) are calculated following analysis. The surrogate recoveries for field samples were within the laboratory control limits, with the following exceptions:

SDG 2207-019: (NWTPH-Gx) The %R for surrogate fluorobenzene was outside the control limits in Sample GEI-49_4-6. The reporting limit for gasoline-range hydrocarbons was qualified as estimated (UJ) in this sample.

(NWTPH-Dx) The %R for surrogate o-Terphenyl was outside the control limits in Samples GEI-47_0-2 and GEI-48_0-2. The positive results for diesel and lube oil-range hydrocarbons were qualified as estimated (J) in these samples.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For each sample batch, method blanks were analyzed at the required frequency. None of the analytes of interest were detected in the method blanks.

Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a %R is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic



analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the results from the MS and MSD, the relative percent difference (RPD) is calculated. The %R control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for each analysis and the %R and RPD values were within the proper control limits.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, control limits for accuracy and precision in the LCS and its duplicate (LCSD) are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to each sample in the associated batch, instead of just the parent sample. The %R control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for each analysis and the %R and RPD values were within the proper control limits.

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the specific laboratory analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory, and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration greater than five times the reporting limit for that sample, the absolute difference is used instead of the RPD as a measurement of precision.

Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met.

Field Duplicates

Field duplicates are similar to laboratory duplicates in that they are used to assess precision. Two samples (parent and duplicate) are created in the field by subsampling the homogenized sample and submitting them to the lab as separate samples. Duplicate samples were collected and analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for soil samples is 50 percent.

SDG 2207-019: One field duplicate sample pair, GEI-51_6-8/GEI-DUP-1, was submitted with this SDG. The precision criteria for the target analytes were met in this sample pair, with the exception of total lead. The positive results for this target analyte were qualified as estimated (J) in this sample pair.

One field duplicate sample pair, GEI-46_6-8/GEI-DUP-2, was submitted with this SDG. The precision criteria for the target analytes were met in this sample pair, with the exception of 2-Methylnaphthalene, anthracene,



benzo[b]fluoranthene, benzo[g,h,i]perylene, fluoranthene, naphthalene, and pyrene. The positive results and reporting limit for these target analytes were qualified as estimated (J and UJ, accordingly) in this sample pair.

Instrument Tuning

Instrument tuning for analyses by gas chromatography/mass spectrometry (GC/MS) are completed to ensure that mass resolution, identification, and sensitivity of the analyses are acceptable. Instrument tuning should be performed at the beginning of each 12-hour period during which samples or standards are analyzed. The frequency and specified acceptance criteria were met for each applicable analysis.

Internal Standards (Low Resolution Mass Spectrometry)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in an environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standard should be analyzed at the beginning of a 12-hour sample run and the control limits for internal standard recoveries are 50 percent to 200 percent of the calibration standard. The internal standard recoveries were within the control limits.

Initial Calibrations (ICALs)

The initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. For inorganic analyses, the %R values were within the control limits of 90% and 110%. For organic analyses, the percent relative standard deviation (%RSD) and relative response factors (RRF) values were within the control limits stated in the USEPA Contract Laboratory Program National Functional Guidelines (USEPA 2020a; 2020b).

Continuing Calibrations (CCALs)

The continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. For inorganic analyses, the %R values were within the control limits of 90% and 110%. For organic analyses, the percent difference (%D) and relative response factors (RRF) values were within the control limits in the USEPA Contract Laboratory Program National Functional Guidelines (USEPA 2020a; 2020b).

Reporting Limits

The contract required quantitation limits (CRQL) were met by the laboratory for the target analytes throughout this sampling event, with some exceptions where the CRQL was elevated due to target analyte interference.

Miscellaneous

SDG 2207-019: (NWTPH-Gx) The positive results for gasoline-range hydrocarbons in Samples GEI-47_0-2 and GEI-48_0-2 may be influenced by hydrocarbons indicative of heavier fuels present in the samples. For this reason, the positive results for gasoline-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.

(NWTPH-Dx) The positive results for lube oil-range hydrocarbons in Samples GEI-46_6-8, GEI-48_4-6, GEI_49_4-6, and GEI-DUP-2 may be influenced by the relative concentration of diesel-range hydrocarbons in the samples. For this reason, the positive results for lube oil-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.



The positive results for diesel-range hydrocarbons in Samples GEI-47_0-2, GEI-48_0-2, GEI-49_0-2, and GEI-49_8-10 may be influenced by the relative concentration of lube oil-range hydrocarbons in the samples. For this reason, the positive results for diesel-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.

Overall Assessment

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD %R values, with the exceptions noted above. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values, with the exceptions noted above.

The data are acceptable for the intended use, with the following qualifications listed below in Table 2.

TABLE 2: SUMMARY OF QUALIFIED SAMPLES

Sample ID	Analyte	Qualifier	Reason
GEI-46_6-8	Lube oil-range hydrocarbons	J	See Miscellaneous
	2-Methylnaphthalene	J	Field Duplicate Precision
	Anthracene	J	Field Duplicate Precision
	Benzo[b]fluoranthene	J	Field Duplicate Precision
	Benzo[g,h,i]perylene	J	Field Duplicate Precision
	Fluoranthene	J	Field Duplicate Precision
	Naphthalene	J	Field Duplicate Precision
	Pyrene	J	Field Duplicate Precision
GEI-DUP-2	Lube oil-range hydrocarbons	J	See Miscellaneous
	2-Methylnaphthalene	J	Field Duplicate Precision
	Anthracene	J	Field Duplicate Precision
	Benzo[b]fluoranthene	J	Field Duplicate Precision
	Benzo[g,h,i]perylene	J	Field Duplicate Precision
	Fluoranthene	J	Field Duplicate Precision
	Naphthalene	UJ	Field Duplicate Precision
	Pyrene	J	Field Duplicate Precision
GEI-47_0-2	Diesel-range hydrocarbons	J	Surrogate Recovery/See Miscellaneous
	Gasoline-range hydrocarbons	J	See Miscellaneous
	Lube oil-range hydrocarbons	J	Surrogate Recovery
GEI-48_0-2	Diesel-range hydrocarbons	J	Surrogate Recovery/See Miscellaneous
	Gasoline-range hydrocarbons	J	See Miscellaneous
	Lube oil-range hydrocarbons	J	Surrogate Recovery
GEI-48_4-6	Lube oil-range hydrocarbons	J	See Miscellaneous
GEI-49_0-2	Diesel-range hydrocarbons	J	See Miscellaneous
GEI-49_4-6	Gasoline-range hydrocarbons	UJ	Surrogate Recovery
	Lube oil-range hydrocarbons	J	See Miscellaneous
GEI-49_8-10	Diesel-range hydrocarbons	J	See Miscellaneous
GEI-51_6-8	Total lead	J	Field Duplicate Precision
GEI-DUP-1	Total lead	J	Field Duplicate Precision

REFERENCES

U.S. Environmental Protection Agency (USEPA). 2009. "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.

U.S. Environmental Protection Agency (USEPA). 2020a. Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review, EPA-540-R-20-005. November 2020.

U.S. Environmental Protection Agency (USEPA). 2020b. Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review, EPA-542-R-20-006. November 2020.

GeoEngineers, Inc. 2020. "Interim Action Work Plan, Quiet Cove Site" Prepared for the Washington Department of Ecology on behalf of the Port of Anacortes. January 9, 2020.

GeoEngineers, Inc. 2021. "Post-Interim Action Groundwater Monitoring Plan" Prepared for the Washington Department of Ecology on behalf of the Port of Anacortes. August 19, 2021.

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