

## Data Gaps Investigation Report

701 South Jackson Property  
Seattle, Washington

*for*

**701 South Jackson Partners, LLC**  
**c/o Housing Diversity Corp**

May 13, 2022



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File No. 24504-001-01

May 13, 2022

Prepared for:

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c/o Housing Diversity Corp  
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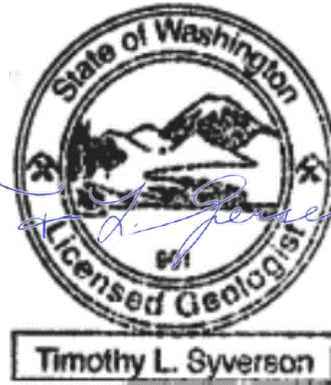
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## 1.0 INTRODUCTION

This document provides the results for the Data Gaps Investigation completed for the Seventh Avenue Service Site (Site) located at 701 South Jackson Street in Seattle, Washington (Property). 701 South Jackson Partners, LLC (South Jackson Partners) is planning for redevelopment of the 0.31-acre Property located at 701 South Jackson Street in the Chinatown-International District neighborhood of Seattle for a new eight-story building with affordable housing and ground level commercial retail space. The planned redevelopment includes the demolition and removal of the existing buildings and improvements, and lot-line to lot-line excavation of subsurface soils to a depth of approximately 15 to 20 feet below ground surface (bgs) and subsequent construction of the new building.

As part of the planned redevelopment, South Jackson Partners will seek a Prospective Purchaser Consent Decree (PPCD) with the Washington State Department of Ecology (Ecology), working with the Assistant Attorney General, Ecology Division (the AGO), to facilitate cleanup as part of project construction. During initial discussions with Ecology and the AGO regarding a PPCD for the Site, the AGO advised that it is prepared to move forward to a PPCD and directed that the Site be enrolled in the Voluntary Cleanup Program (VCP) for approval of the Revised Remedial Investigation/Feasibility Study/Cleanup Action Plan (Revised RI/FS/CAP). The Property will be transitioned to the PPCD track for completion of the Cleanup Action after Ecology approves the preparatory reports. To meet the overall project schedule, the Site has been entered into the Expedited VCP.

Based on investigations conducted from 1992 to 2021, soil at the Site contains gasoline-range total petroleum hydrocarbons, benzene, toluene, ethylbenzene and xylenes (BTEX), and naphthalene at concentrations greater than the Model Toxics Control Act (MTCA) cleanup levels (CULs). Additionally, localized areas of the shallow fill soil imported to the Property during construction for the existing structures contain lead and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) at concentrations greater than the MTCA CULs. Details regarding the previous environmental investigations completed to date and the planned cleanup action to be completed during Property redevelopment are summarized in the Revised RI/FS/CAP (GeoEngineers 2022).

On completion of their review of the Revised RI/FS/CAP, Ecology requested additional sampling and analysis to further evaluate and document the nature and extent of contamination at the Site beyond what was included in the Revised RI/FS/CAP, including: (1) an additional boring within the South Jackson/7<sup>th</sup> Avenue Rights-of-Way (ROW) to evaluate the lateral extent of contamination northwest of the Site; (2) installation of two new monitoring wells downgradient of previously identified “hot spots” in shallow soil to determine whether contaminants at the Site are impacting deep groundwater; and (3) further evaluation of soil at depths where field screening previously identified elevated headspace vapors (i.e., 35-40 feet bgs).

The sample collection and chemical analytical data described in this document address the previously identified data gaps. On behalf of South Jackson Partners, GeoEngineers is requesting Ecology's concurrence that with the additional data the Site characterization is complete, and that the proposed cleanup action as part of property redevelopment outlined in the Revised RI/FS/CAP will meet the requirements for a No Further Action (NFA) determination for the Site.

## **2.0 BACKGROUND**

### **2.1. Location and Description**

The Site is located at 701 South Jackson Street in Seattle, Washington. The Property at 701 South Jackson Street is currently developed with two single-story structures, including a former gasoline station building in the northwest portion and an “L”-shaped automobile repair garage along the east and south parcel boundaries, and paved parking and drive areas. The buildings are currently vacant.

### **2.2. Historical Land Use**

Since redevelopment following the Jackson Street regrading project in 1927, the Property at 701 South Jackson Street has been used for automobile repair and fueling services which operated from the large “L”-shaped building along the southern and eastern portions of the Property. As early as 1932, a gasoline service station was added to the northwest portion of the Property until sales of gasoline ceased in the 1970s. The former gasoline service station operations included two gasoline underground storage tanks (USTs) and an associated fuel dispenser/pump island, and vehicle service/repair. In 2010, the gasoline USTs associated with the service station were permanently decommissioned and removed from the Property.

### **2.3. Regulatory Framework**

The Site is listed by Ecology with Facility/Site No. 99187287 and Cleanup Site ID No. 11348 and has been identified as a Leaking Underground Storage Tank (LUST) site (LUST Release No. 592055) for benzene, naphthalene, and gasoline-range petroleum hydrocarbons confirmed in soil at concentrations greater than the MTCA CULs. As noted above, South Jackson Partners will seek a PPCD with Ecology as part of the planned redevelopment to facilitate cleanup as part of construction.

### **2.4. Previous Environmental Investigations and Summary of Analytical Results**

Multiple environmental investigations have been completed at the Property to evaluate Site conditions. Soil and groundwater conditions based on the results of the previous environmental investigation activities indicate that soil in the central and western portions of the Property contain gasoline-range total petroleum hydrocarbons BTEX, and naphthalene at concentrations greater than MTCA CULs between approximately 5 and 20 feet bgs. Additionally, localized areas of the shallow fill soil imported to the Property during construction for the existing structures contain lead (GEI-6) and cPAHs (GEI-4) at concentrations greater than the MTCA CULs at a depth of approximately 2.5 feet bgs. Other contaminants of potential concern including diesel- and heavy oil-range total petroleum hydrocarbons, volatile organic compounds (VOCs) (not including BTEX), halogenated VOCs (HVOCs), metals (not including lead) and polychlorinated biphenyls (PCBs) either were not detected at concentrations greater than the laboratory reporting limits or were detected at concentrations less than the corresponding MTCA CULs.

Analytical results for a groundwater grab sample (GEI-1) collected from the deep regional groundwater unit indicate that contaminants either were not detected at concentrations greater than the laboratory reporting limits or were detected at concentrations less than the MTCA CULs.

Chemical analytical results for soil and groundwater samples are summarized in Tables 1 and 2, respectively. Soil results are summarized on Figures 3 through 5.

### 3.0 DATA GAPS INVESTIGATION

Additional investigation activities were completed in April 2022 to further characterize soil and groundwater conditions at the Site. As part of the investigation, sampling was performed within portions of the South Jackson Street and 7<sup>th</sup> Avenue ROWs to evaluate the northwestern, western, and southwestern limits of petroleum contamination resulting from historical land use in accordance with the proposed Data Gaps Investigation presented in the Revised RI/FS/CAP and the additional sampling and analysis requested by Ecology. The data gaps investigation consisted of completing three shallow borings in the ROW to the northwest, west and southwest of the Property to define the lateral extent of contamination, and the completion of two deep borings in the ROW west of the Property boundary to evaluate soil at depths where field screening previously identified elevated headspace vapors (i.e., 35-40 feet bgs) and to install new monitoring wells for evaluating deep regional groundwater downgradient of the source area (i.e., former gasoline service station and fuel island).

Soil borings GEI-8 through GEI-10 were advanced to depths of 25 feet bgs to evaluate the lateral extent of contamination, and borings GEI-11 and GEI-12 were advanced to depths of approximately 70 and 75 feet, respectively and completed as groundwater monitoring wells as requested by Ecology to further evaluate deep groundwater conditions. At borings GEI-11 and GEI-12, soil samples were also collected for chemical analysis from depth intervals in which previous headspace vapors were elevated (i.e., 35 and 40 feet within borings GEI-3 and GEI-2, respectively).

Boring locations are shown relative to the Property on Figure 2. Soil and groundwater investigation activities and the results of chemical analytical testing are detailed below.

#### 3.1. Soil Investigation

##### 3.1.1. Sample Collection and Processing

Three shallow soil borings within the ROW (GEI-8 through GEI-10; Figure 2) were completed to depths of approximately 25 bgs using a track-mounted direct push drilling rig owned and operated by a licensed driller in the State of Washington (Cascade Drilling). In addition, two deep borings within the ROW (GEI-11 and GEI-12) were completed to depths ranging from 70 to 75 feet bgs using a truck-mounted hollow stem auger drill rig owned and operated by Cascade Drilling. During drilling activities, a representative from GeoEngineers' staff was present to examine, field screen and classify the soils encountered and prepare a detailed boring log of each exploration. Boring logs detailing field screening results and soil types encountered are presented in Appendix A.

Based on the field screening results, soil types encountered and previous soil sample results, selected samples were collected at each location for laboratory chemical analysis. The sample intervals were consistent with the previous verification sample intervals to evaluate contaminant nature and extent and to address the request from Ecology to evaluate elevated headspace vapors in soil at depth. The collected samples were individually homogenized and placed into the appropriate laboratory-supplied sample containers. Samples for volatile analysis (i.e., gasoline) 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. Upon collection, the samples were placed into a cooler with ice and logged on the chain-of-custody.



### 3.1.2. Chemical Analytical Results

Soil samples were submitted to Fremont Analytical (Fremont) in Seattle, Washington, for a combination of the following chemical analyses:

- Gasoline-range petroleum hydrocarbons by NWTPH-Gx.
- BTEX by EPA Method 8260.
- Naphthalenes by EPA Method 8270.

Chemical analytical results for soil samples are summarized in Table 1 and shown on Figures 3 through 6. Based on a review of the chemical analytical data, gasoline-range petroleum hydrocarbons, BTEX and naphthalenes were not detected at concentrations greater than the laboratory reporting limit in any of the samples with two exceptions. Gasoline-range petroleum hydrocarbons and naphthalenes were detected at concentrations greater than MTCA CULs in the soil samples collected from boring GEI-11 and GEI-12 at a depth of approximately 15 feet bgs.

Laboratory reports and the findings of a data quality review for the Data Gaps Investigation are presented in Appendix B.

### 3.1.3. Deviations from the Planned Soil Investigation

Deviations from the proposed Data Gaps Investigation presented in Revised RI/FS/CAP and as requested by Ecology based on their review of the Revised RI/FS/CAP included:

- Due to the presence of multiple buried utilities, light rail line, and the bus corridor located northwest of the 701 South Jackson Street Property, the additional boring requested by Ecology to further evaluate soil conditions in this area could not be completed.
- Due to the presence of multiple buried utilities and a suspected underground utility vault (concrete surface encountered at multiple locations), the proposed boring in the northwest portion of 7<sup>th</sup> Avenue as indicated by the Revised RI/FS/CAP could not be completed.

## 3.2. Groundwater Investigation

### 3.2.1. Monitoring Well Construction and Development

Monitoring wells GEI-11 and GEI-12 (Figure 2) were installed downgradient of the two soil hot spots areas identified in the Revised RI/FS/CAP. The wells were installed by a Washington State licensed driller in compliance with State standards using truck-mounted hollow stem auger drill rig. Drilling and monitoring well installation activities were observed by a GeoEngineers field technician, who maintained a detailed log documenting the boring log and well installation. Boring logs documenting well construction details are presented in Appendix A.

Following installation, monitoring wells GEI-11 and GEI-12 were developed to stabilize the filter pack and formation materials surrounding the well screen, and to restore the hydraulic connection between the well screen and the surrounding soil. Well development was completed following installation of each new monitoring well in advance of the groundwater sampling activities. Well development included gently surging water through the well screen several times using a decontaminated polyvinyl chloride (PVC) slug rod followed by extraction of the development water. Development activities were completed until a



minimum of five casing volumes of water were removed and/or turbidity of the development water was recorded to be relatively low. The goal of well development was to reduce the turbidity content of the water to approximately 25 nephelometric turbidity units (NTUs). No more than 10 well volumes of water were removed from the wells in an effort to attain the 25 NTU goal.

Water generated during well development activities was stored on the Property in a secured and labeled 55-gallon drum.

### **3.2.2. Groundwater Sampling and Analysis**

Groundwater monitoring activities were completed on April 11, 2022. Prior to sampling, groundwater levels were measured from the top of each well casing rim to the nearest 0.01 foot using a decontaminated electric water level indicator (e-tape). Decontamination procedures are described in Appendix A. Measured water levels are summarized in Table 2.

Groundwater samples were obtained using low-flow/low-turbidity sampling techniques to minimize the suspension of sediment in groundwater samples. Using a bladder pump, groundwater was pumped from the well at a rate not exceeding 0.5 liter per minute through dedicated polyethylene tubing with the end positioned at the approximate midpoint of the saturated screened interval. A YSI-Pro series water quality meter with flow-through-cell was used to monitor the following parameters during purging:

- Acidity (pH)
- Electrical conductivity (EC)
- Turbidity
- Dissolved oxygen (DO)
- Temperature
- Total dissolved solids (TDS)
- Oxygen reduction potential (ORP)

Collection of water samples began once these parameters were observed to vary by less than 10 percent on three consecutive measurements. The stabilized field measurements are summarized in Table 2. Based on the measured groundwater elevations and previous environmental investigations, the inferred groundwater flow direction across the Site is to the southwest.

### **3.2.3. Chemical Analytical Results**

Groundwater samples were submitted to Fremont Analytical (Fremont) in Seattle, Washington, for a combination of the following chemical analyses:

- Gasoline-range total petroleum hydrocarbons by NWTPH-G.
- Diesel- and heavy oil-range total petroleum hydrocarbons by NWTPH-Dx.
- BTEX by EPA Method 8260.
- PAHs by EPA Method 8270D/SIM.
- Total and dissolved MTCA metals by EPA Method 6000/7000 series.

Chemical analytical results for groundwater samples are summarized in Table 2. Based on a review of the chemical analytical data, low concentrations of gasoline-range petroleum hydrocarbons, arsenic and naphthalenes were detected in the groundwater samples collected from monitoring wells GEI-11 and GEI-12. The detected analyte concentrations in the two groundwater samples are less than the MTCA CULs and are similar to the concentrations previously detected in a grab water sample collected from GEI-1 on May 18, 2021.

#### **3.2.4. Deviations from the Planned Groundwater Investigation**

No deviations from the proposed Data Gaps Investigation presented in Revised RI/FS/CAP or as requested by Ecology based on their review of the Revised RI/FS/CAP were noted.

## **4.0 CONCLUSIONS**

Previous environmental investigations conducted from 1992 to 2021 identified gasoline-range total petroleum hydrocarbons, BTEX, and naphthalene in soil at concentrations greater than the MTCA CULs in samples collected from approximately 10 to 20 feet bgs at the Site. Additionally, localized areas of the shallow fill soil historically imported to the 701 South Jackson Street Property contain lead and cPAHs at concentrations greater than the MTCA CULs. The additional soil and groundwater investigation activities were completed to address the following data gaps:

- Nature and extent of contamination within the South Jackson/7<sup>th</sup> Avenue ROWs.
- Characterization of soil at depth along the western property boundary where elevated headspace vapors were previously identified (i.e., locations GEI-2 and GEI-3 between approximately 35 and 40 feet bgs).
- Characterization of groundwater conditions west/downgradient of areas with elevated contaminant concentrations in soil.

To address these data gaps, three shallow direct push borings were completed within the South Jackson/7<sup>th</sup> Avenue ROWs (as noted above, additional borings proposed and/or requested by Ecology could not be completed due to the presence of buried utilities) and two deep hollow stem auger borings were completed as permanent groundwater monitoring wells. Results of the investigation indicated the following:

- Contaminants of concern were not detected at concentrations greater than the laboratory reporting limits at locations GEI-8 through GEI-10 (Figure 2). Based on the laboratory data and soil conditions observed during drilling, the lateral extent of contamination resulting from historical land use is now defined to the northwest, west and southwest of the 701 South Jackson Street Property.
- Contaminants of concern were not detected at concentrations greater than the laboratory reporting limits at locations GEI-11 and GEI-12 at equivalent depths (i.e., 35 and 40 feet bgs, respectively) where elevated headspace vapors were previously identified. Based on the laboratory data and soil conditions observed during drilling, contaminants do not extend below a depth of approximately 20 feet along the western 701 South Jackson Street property boundary which are consistent with previous investigation results.
- Low concentrations of gasoline-range petroleum hydrocarbons, arsenic and naphthalenes were detected in the groundwater samples collected from monitoring wells GEI-11 and GEI-12 located

downgradient of the two identified hot spots in soil at the 701 South Jackson Street Property. The detected contaminant concentrations in the two groundwater samples are less than the MTCA CULs and are similar to the concentrations detected in the grab water sample collected from GEI-1. Based on the detected concentrations, there is no evidence that Site contaminants have adversely affected groundwater downgradient of the Property.

Soil and groundwater data collected to date and presented in the Revised RI/FS/CAP, and as part of the Data Gaps Investigation are presented in Tables 1 and 2. Figures 3 through 5 provide a summary of soil investigation results for the 701 South Jackson Street Property.

As presented in the Revised RI/FS/CAP, the proposed cleanup action during construction will result in the removal of the soil with contaminant concentration greater than the MTCA CULs within the Property boundary and the residual contamination that will remain beneath the 7<sup>th</sup> Avenue ROW is expected to naturally attenuate over time. The monitoring well samples indicate that although detected, Site contaminants are not present in groundwater at concentrations greater than the MTCA CULs. Based on the environmental data collected to date, we are requesting Ecology's concurrence that the Site characterization is complete and that the proposed cleanup action as part of property redevelopment will meet the requirements for a NFA determination for the Site.

## **5.0 LIMITATIONS**

This Data Gaps Investigation Report has been prepared for use by South Jackson Partners LLC and their authorized agents. GeoEngineers has performed the soil and groundwater investigation activities for the Property located at 701 South Jackson Street in Seattle, Washington, in general accordance with our proposal dated January 21, 2021 (revised May 10, 2021, December 6, 2021 and February 9, 2022). Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

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Please refer to Appendix C, titled "Report Limitations and Guidelines for Use," for additional information pertaining to use of this report.

## 6.0 REFERENCES

- CDM Smith (CDM). 2012. June 2012 Phase I Environmental Site Assessment Report, Seventh Avenue Service Property, 701 S Jackson Street, Seattle, Washington. June 13, 2012.
- Environmental Associates, Inc. (EAI) 2010. Underground Storage Tank Removal and Soil Testing. 7th Avenue Station, Seattle, Washington. December 16, 2010.
- Farallon Consulting (Farallon). 2019. Phase II Investigation Report, South Jackson Street Property, Seattle, Washington. November 18, 2019.
- Geo Group Northwest, Inc. (GeoGroup). 1992. Level 2 Site Contamination Assessment, Jackson and 7th Gas Station, Seattle, Washington. E-0260. October 14, 1992.
- Geo Group Northwest, Inc. (GeoGroup). 2006. Findings from Limited Phase II Environmental Assessment, Seventh Avenue Service, 701 S. Jackson Street, Seattle, Washington. March 15, 2006.
- Landau Associates, Inc. (LAI). 2011. Focused Phase II Investigation Report, 7th Avenue South and South Jackson Street Property, Seattle, Washington. December 9, 2011.
- GeoEngineers Inc. (GeoEngineers) 2022. Remedial Investigation/Feasibility Study/Cleanup Action Plan, 701 South Jackson Property, Seattle, Washington. prepared for 701 South Jackson Partners, LLC c/o Housing Diversity Corp. July 1, 2022.



**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	H-1	H-2	H-3	FB-3				FB-4			MTCA Cleanup Levels <sup>3</sup>
Sample Identification	H-1-12.5	H-2-7.5	H-3-7.5	FB-3-10.0	FB-3-15.0	FB-3-20.0	FB-3-40.0	FB-4-6.0	FB-4-10.0	FB-4-15.0	
Sampled By	GeoGroup	GeoGroup	GeoGroup	Farallon	Farallon	Farallon	Farallon	Farallon	Farallon	Farallon	
Sample Date	08/03/92	08/03/92	08/03/92	10/31/19	10/31/19	10/31/19	10/31/19	11/01/19	11/01/19	11/01/19	
Sample Depth (feet bgs)	12.5	7.5	7.5	10.0	15.0	20.0	40.0	6.0	10.0	15.0	
<b>Petroleum Hydrocarbons by NWPTH-Gx/NWTPH-Dx (mg/kg)</b>											
Gasoline-Range	<b>6,000</b>	<b>1.6</b>	<b>1,400</b>	<b>1,300</b>	5.2 U	5.6 U	5.0 U	<b>86</b>	<b>450</b>	<b>1,700</b>	30/100 <sup>4</sup>
Diesel-Range	--	--	--	980 U	--	--	--	--	--	31 U	2,000
Lube Oil-Range	--	--	--	<b>570</b>	--	--	--	--	--	61 U	2,000
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>											
Benzene	<b>4</b>	0.05 U	<b>0.31</b>	0.021 U	<b>0.060</b>	0.020 U	0.020 U	0.020 U	<b>0.032</b>	<b>1.3</b>	0.03
Toluene	<b>55</b>	0.05 U	<b>1.9</b>	<b>0.17</b>	0.052 U	0.056 U	0.050 U	0.055 U	0.053 U	<b>21</b>	7
Ethylbenzene	<b>66</b>	0.05 U	<b>6.2</b>	<b>4.6</b>	<b>0.29</b>	0.056 U	0.050 U	<b>0.12</b>	<b>2.2</b>	<b>21</b>	6
Total Xylenes	<b>330</b>	0.05 U	<b>16</b>	<b>11.2</b>	0.104 U	0.112 U	0.10 U	<b>0.1</b>	<b>2.99</b>	<b>129</b>	9
1,2 Dibromoethane (EDB)	--	--	--	0.050 U	--	--	--	--	--	--	0.005
1,2 Dichloroethane (EDC)	--	--	--	0.050 U	--	--	--	--	--	--	1
Methyl tertiary-butyl ether (MTBE)	--	--	--	0.050 U	--	--	--	--	--	--	0.1
other VOCs	--	--	--	ND	--	--	--	--	--	--	varies
<b>Total Metals by EPA 6000 series (mg/kg)</b>											
Arsenic	--	--	--	--	--	--	--	--	--	--	20
Barium	--	--	--	--	--	--	--	--	--	--	16,000
Cadmium	--	--	--	--	--	--	--	--	--	--	2
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000
Lead	<b>1.5</b>	<b>2.2</b>	<b>3.8</b>	5.7 U	--	--	--	--	--	--	250
Mercury	--	--	--	--	--	--	--	--	--	--	2
Selenium	--	--	--	--	--	--	--	--	--	--	400
Silver	--	--	--	--	--	--	--	--	--	--	400
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>											
Acenaphthene	--	--	--	<b>0.022</b>	--	--	--	--	--	--	4,800
Acenaphthylene	--	--	--	<b>0.0076</b>	--	--	--	--	--	--	NE
Anthracene	--	--	--	<b>0.025</b>	--	--	--	--	--	--	24,000
Benzo[a]anthracene	--	--	--	<b>0.028</b>	--	--	--	--	--	--	NE
Benzo(a)pyrene	--	--	--	<b>0.027</b>	--	--	--	--	--	--	0.1
Benzo(b)fluoranthene	--	--	--	<b>0.028</b>	--	--	--	--	--	--	NE
Benzo(g,h,i)perylene	--	--	--	<b>0.022</b>	--	--	--	--	--	--	NE
Benzo(k)fluoranthene	--	--	--	0.0076 U	--	--	--	--	--	--	NE
Chrysene	--	--	--	<b>0.029</b>	--	--	--	--	--	--	NE
Dibenzo(a,h)anthracene	--	--	--	0.0076 U	--	--	--	--	--	--	NE
Fluoranthene	--	--	--	<b>0.057</b>	--	--	--	--	--	--	3,200
Fluorene	--	--	--	<b>0.03</b>	--	--	--	--	--	--	3,200
Indeno(1,2,3-cd)pyrene	--	--	--	<b>0.019</b>	--	--	--	--	--	--	NE
Naphthalenes	--	--	--	<b>10.5</b>	--	--	--	--	--	--	5
Phenanthrene	--	--	--	<b>0.098</b>	--	--	--	--	--	--	NE
Pyrene	--	--	--	<b>0.063</b>	--	--	--	--	--	--	2,400
cPAHs TEQ <sup>6</sup>	--	--	--	<b>0.039</b>	--	--	--	--	--	--	0.1
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>											
Aroclor 1016	--	--	--	0.057 U	--	--	--	--	--	--	NA
Aroclor 1221	--	--	--	0.057 U	--	--	--	--	--	--	NA
Aroclor 1232	--	--	--	0.057 U	--	--	--	--	--	--	NA
Aroclor 1242	--	--	--	0.057 U	--	--	--	--	--	--	NA
Aroclor 1248	--	--	--	0.057 U	--	--	--	--	--	--	NA
Aroclor 1254	--	--	--	0.057 U	--	--	--	--	--	--	NA
Aroclor 1260	--	--	--	0.057 U	--	--	--	--	--	--	NA
Total PCBs	--	--	--	0.399 U	--	--	--	--	--	--	1.0

**Notes:**

- <sup>1</sup> Approximate exploration locations shown on Figure 3.
- <sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.
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bgs = below ground surface  
mg/kg = milligram per kilogram  
HVOCs = halogenated VOCs  
Farallon = Farallon Consulting  
Landau = Landau Associates  
EAI = Environmental Associates, Inc.  
GeoGroup = GEO Group Northwest, Inc.  
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NA = Not Applicable  
NE = Not Established  
"--" = not tested  
ND = Not Detected  
U = Analyte not detected above the reported sample quantization limit  
**Bold** indicates analyte was detected.  
Shading indicates analyte was detected at a concentration greater than the MTCA cleanup level.

**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	FB-5 <sup>2</sup>			FB-6				FB-7		B-1-11	MTCA Cleanup Levels <sup>3</sup>
Sample Identification	FB-5-11.0	FB-5-17.0	FB-5-25.0	FB-6-10.0	FB-6-18.0	FB-6-21.0	FB-6-24.0	FB-7-2.5	FB-7-8.0	B-1 S-5	
Sampled By	Farallon	Farallon	Farallon	Farallon	Farallon	Farallon	Farallon	Farallon	Farallon	Landau	
Sample Date	11/01/19	11/01/19	11/01/19	11/01/19	11/01/19	11/01/19	11/01/19	10/30/19	10/30/19	11/11/11	
Sample Depth (feet bgs)	4.6	7.2	10.6	10.0	18.0	21.0	24.0	2.5	8.0	12.5	
<b>Petroleum Hydrocarbons by NWTPH-Gx/NWTPH-Dx (mg/kg)</b>											
Gasoline-Range	<b>17</b>	<b>4,800</b>	5.9 U	4.7 U	<b>28</b>	6.5 U	5.8 U	5.2 U	5.7 U	<b>24,000</b>	30/100 <sup>4</sup>
Diesel-Range	33 U	<b>590</b>	32 U	--	30 U	--	31 U	31 U	31 U	120 U	2,000
Lube Oil-Range	66 U	57 U	63 U	--	61 U	--	63 U	<b>170</b>	<b>78</b>	50 U	2,000
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>											
Benzene	0.020 U	<b>1.6</b>	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	<b>110</b>	0.03
Toluene	0.071 U	<b>18</b>	0.059 U	0.047 U	0.051 U	0.065 U	0.058 U	0.052 U	0.057 U	<b>1,700</b>	7
Ethylbenzene	<b>0.095</b>	<b>89</b>	0.059 U	0.047 U	<b>1.2</b>	0.065 U	0.058 U	0.052 U	0.057 U	<b>470</b>	6
Total Xylenes	<b>0.087</b>	<b>420</b>	0.118 U	0.094 U	<b>0.55</b>	0.13 U	<b>0.068</b>	0.104 U	0.114 U	<b>2,400</b>	9
1,2 Dibromoethane (EDB)	--	1.1 U	--	--	0.00089 U	--	--	--	--	--	0.005
1,2 Dichloroethane (EDC)	--	1.1 U	--	--	0.00089 U	--	--	--	--	--	1
Methyl tertiary-butyl ether (MTBE)	--	--	--	--	--	--	--	--	--	--	0.1
other VOCs	--	ND	--	--	ND	--	--	--	--	--	varies
<b>Total Metals by EPA 6000 series (mg/kg)</b>											
Arsenic	--	--	--	--	--	--	--	--	--	--	20
Barium	--	--	--	--	--	--	--	--	--	--	16,000
Cadmium	--	--	--	--	--	--	--	--	--	--	2
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000
Lead	--	--	--	--	--	--	--	--	--	<b>8.9</b>	250
Mercury	--	--	--	--	--	--	--	--	--	--	2
Selenium	--	--	--	--	--	--	--	--	--	--	400
Silver	--	--	--	--	--	--	--	--	--	--	400
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>											
Acenaphthene	--	<b>0.025</b>	--	--	0.0081 U	--	--	--	--	--	4,800
Acenaphthylene	--	<b>0.025</b>	--	--	0.0081 U	--	--	--	--	--	NE
Anthracene	--	<b>0.016</b>	--	--	0.0081 U	--	--	--	--	--	24,000
Benzo[a]anthracene	--	<b>0.0083</b>	--	--	0.0081 U	--	--	--	--	--	NE
Benzo(a)pyrene	--	0.0076 U	--	--	0.0081 U	--	--	--	--	--	0.1
Benzo(b)fluoranthene	--	0.0076 U	--	--	0.0081 U	--	--	--	--	--	NE
Benzo(g,h,i)perylene	--	0.0076 U	--	--	0.0081 U	--	--	--	--	--	NE
Benzo(k)fluoranthene	--	0.0076 U	--	--	0.0081 U	--	--	--	--	--	NE
Chrysene	--	0.0076 U	--	--	0.0081 U	--	--	--	--	--	NE
Dibenzo(a,h)anthracene	--	0.0076 U	--	--	0.0081 U	--	--	--	--	--	NE
Fluoranthene	--	<b>0.012</b>	--	--	0.0081 U	--	--	--	--	--	3,200
Fluorene	--	<b>0.053</b>	--	--	0.0081 U	--	--	--	--	--	3,200
Indeno(1,2,3-cd)pyrene	--	0.0076 U	--	--	0.0081 U	--	--	--	--	--	NE
Naphthalenes	--	<b>12.8</b>	--	--	<b>0.66</b>	--	--	--	--	--	5
Phenanthrene	--	<b>0.078</b>	--	--	0.0081 U	--	--	--	--	--	NE
Pyrene	--	<b>0.019</b>	--	--	0.0081 U	--	--	--	--	--	2,400
cPAHs TEQ <sup>6</sup>	--	<b>0.005</b>	--	--	0.006 U	--	--	--	--	--	0.1
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>											
Aroclor 1016	--	0.057 U	--	--	0.061 U	--	--	--	--	--	NA
Aroclor 1221	--	0.057 U	--	--	0.061 U	--	--	--	--	--	NA
Aroclor 1232	--	0.057 U	--	--	0.061 U	--	--	--	--	--	NA
Aroclor 1242	--	0.057 U	--	--	0.061 U	--	--	--	--	--	NA
Aroclor 1248	--	0.057 U	--	--	0.061 U	--	--	--	--	--	NA
Aroclor 1254	--	0.057 U	--	--	0.061 U	--	--	--	--	--	NA
Aroclor 1260	--	0.057 U	--	--	0.061 U	--	--	--	--	--	NA
Total PCBs	--	0.399 U	--	--	0.427 U	--	--	--	--	--	1.0

**Notes:**

- <sup>1</sup> Approximate exploration locations shown on Figure 3.
- <sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.
- <sup>3</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses. MTCA Method B cleanup level used when Method A cleanup level has not been established.
- <sup>4</sup> When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.
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EAI = Environmental Associates, Inc.  
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**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	B-1-11	B-2-11		B-3-11		B-4-11		B-5-11	B-6-11		MTCA Cleanup Levels <sup>3</sup>
Sample Identification	B-1 S-7	B-2 S-4	B-2 S-6	B-3 S-4	B-3 S-6	B-4 S-2	B-4 S-6	B-5 S-8	B-6 S-6	B-6 S-7	
Sampled By	Landau	Landau	Landau	Landau	Landau	Landau	Landau	Landau	Landau	Landau	
Sample Date	11/11/11	11/11/11	11/11/11	11/11/11	11/11/11	11/11/11	11/11/11	11/14/11	11/04/11	11/04/11	
Sample Depth (feet bgs)	17.5	12.5	17.5	12.5	17.5	5.0	15.0	20.0	15.0	20.0	
<b>Petroleum Hydrocarbons by NWPTH-Gx/NWTPH-Dx (mg/kg)</b>											
Gasoline-Range	<b>14</b>	<b>14</b>	<b>11</b>	<b>420</b>	<b>6.6</b>	<b>10</b>	<b>26</b>	3.0 U	3.0 U	<b>4.6</b>	30/100 <sup>4</sup>
Diesel-Range	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	2,000
Lube Oil-Range	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	2,000
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>											
Benzene	<b>0.12</b>	0.044 U	<b>0.051</b>	0.024 U	<b>0.06</b>	<b>0.14</b>	<b>0.38</b>	0.030 U	0.030 U	0.030 U	0.03
Toluene	<b>0.51</b>	<b>0.36</b>	<b>0.4</b>	<b>1.0</b>	<b>0.36</b>	<b>0.43</b>	<b>1.0</b>	0.050 U	0.050 U	0.050 U	7
Ethylbenzene	<b>0.3</b>	<b>0.078</b>	<b>0.08</b>	<b>7.3</b>	<b>0.076</b>	<b>0.12</b>	<b>0.38</b>	0.050 U	0.050 U	<b>0.078</b>	6
Total Xylenes	<b>1.3</b>	<b>0.32</b>	<b>0.32</b>	<b>32</b>	<b>0.39</b>	<b>0.58</b>	<b>2.2</b>	0.20 U	0.20 U	0.20 U	9
1,2 Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	0.005
1,2 Dichloroethane (EDC)	--	--	--	--	--	--	--	--	--	--	1
Methyl tertiary-butyl ether (MTBE)	--	--	--	--	--	--	--	--	--	--	0.1
other VOCs	--	--	--	--	--	--	--	--	--	--	varies
<b>Total Metals by EPA 6000 series (mg/kg)</b>											
Arsenic	--	--	--	--	--	--	--	--	--	--	20
Barium	--	--	--	--	--	--	--	--	--	--	16,000
Cadmium	--	--	--	--	--	--	--	--	--	--	2
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000
Lead	--	--	--	<b>7.4</b>	--	--	--	--	--	--	250
Mercury	--	--	--	--	--	--	--	--	--	--	2
Selenium	--	--	--	--	--	--	--	--	--	--	400
Silver	--	--	--	--	--	--	--	--	--	--	400
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>											
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	NE
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	0.1
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	NE
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	NE
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	NE
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	NE
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,400
cPAHs TEQ <sup>6</sup>	--	--	--	--	--	--	--	--	--	--	0.1
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>											
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	NA
Total PCBs	--	--	--	--	--	--	--	--	--	--	1.0

**Notes:**

- <sup>1</sup> Approximate exploration locations shown on Figure 3.
- <sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.
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- <sup>4</sup> When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.
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**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	UST-1				UST-2				B-1		MTCA Cleanup Levels <sup>3</sup>
	UST-1-B-12	UST-1-N-8/W-6	UST-1-S-8/E-8	UST-1-OB	UST-2-B-12	UST-2-OB	UST-2-N-8/W-6	UST-2-S-8/E-8	B-1-5	B-1-12.5	
Sample Identification	EAI	EAI	EAI	EAI	EAI	EAI	EAI	EAI	GeoGroup	GeoGroup	
Sampled By	EAI	EAI	EAI	EAI	EAI	EAI	EAI	EAI	GeoGroup	GeoGroup	
Sample Date	11/02/10	11/02/10	11/02/10	11/02/10	11/02/10	11/02/10	11/02/10	11/02/10	02/01/06	02/01/06	
Sample Depth (feet bgs)	12.0	6	8.0	Stockpile	12.0	Stockpile	6	8.0	5.0	12.5	
<b>Petroleum Hydrocarbons by NWTPH-Gx/NWTPH-Dx (mg/kg)</b>											
Gasoline-Range	<b>110</b>	2 U	<b>37</b>	2 U	2 U	2 U	2 U	2 U	16	<b>12,000</b>	30/100 <sup>4</sup>
Diesel-Range	--	--	--	--	--	--	--	--	28 U	<b>560</b>	2,000
Lube Oil-Range	--	--	--	--	--	--	--	--	57 U	62 U	2,000
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>											
Benzene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.020 U	<b>17</b>	0.03
Toluene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.047 U	<b>7.2</b>	7
Ethylbenzene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.047 U	<b>210</b>	6
Total Xylenes	<b>0.34</b>	0.06 U	<b>1.4</b>	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	<b>0.061</b>	<b>860</b>	9
1,2 Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	0.005
1,2 Dichloroethane (EDC)	--	--	--	--	--	--	--	--	--	--	1
Methyl tertiary-butyl ether (MTBE)	--	--	--	--	--	--	--	--	--	--	0.1
other VOCs	--	--	--	--	--	--	--	--	--	--	varies
<b>Total Metals by EPA 6000 series (mg/kg)</b>											
Arsenic	--	--	--	--	--	--	--	--	--	--	20
Barium	--	--	--	--	--	--	--	--	--	--	16,000
Cadmium	--	--	--	--	--	--	--	--	--	--	2
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000
Lead	--	--	--	--	--	--	--	--	--	--	250
Mercury	--	--	--	--	--	--	--	--	--	--	2
Selenium	--	--	--	--	--	--	--	--	--	--	400
Silver	--	--	--	--	--	--	--	--	--	--	400
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>											
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	NE
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	0.1
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	NE
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	NE
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	NE
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	NE
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,400
cPAHs TEQ <sup>6</sup>	--	--	--	--	--	--	--	--	--	--	0.1
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>											
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	NA
Total PCBs	--	--	--	--	--	--	--	--	--	--	1.0

**Notes:**

- <sup>1</sup> Approximate exploration locations shown on Figure 3.
- <sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.
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Shading indicates analyte was detected at a concentration greater than the MTCA cleanup level.

**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	B-3		B-4		GEI-1			GEI-2			MTCA Cleanup Levels <sup>3</sup>
	Sample Identification	B-3-10	B-3-12.5	B-4-9	B-4-14	GEI-1-5.0	GEI-1-12.5	GEI-1-17.5	GEI-2-10.0	GEI-2-15.0	
Sampled By	GeoGroup	GeoGroup	GeoGroup	GeoGroup	GEI	GEI	GEI	GEI	GEI	GEI	
Sample Date	02/01/06	02/01/06	02/02/06	02/02/06	05/18/21	05/18/21	05/18/21	05/19/21	05/19/21	05/19/21	
Sample Depth (feet bgs)	10.0	12.5	9.0	14.0	5.0	12.5	17.5	10.0	15.0	17.5	
<b>Petroleum Hydrocarbons by NWPTH-Gx/NWTPH-Dx (mg/kg)</b>											
Gasoline-Range	<b>1,300</b>	13 U	10 U	<b>8,300</b>	5.02 U	<b>57.9</b>	4.94 U	<b>1,970</b>	<b>361</b>	5.59 U	30/100 <sup>4</sup>
Diesel-Range	30 U	27 U	28 U	<b>280</b>	54.4 U	51.8 U	53.6 U	--	--	--	2,000
Lube Oil-Range	60 U	54 U	55 U	62 U	109 U	104 U	107 U	--	--	--	2,000
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>											
Benzene	<b>1.8</b>	<b>0.093</b>	<b>0.38</b>	<b>15</b>	0.0201 U	0.0197 U	0.0198 U	0.0207 U	<b>0.129</b>	0.0224 U	0.03
Toluene	<b>4.5</b>	<b>0.39</b>	<b>0.21</b>	<b>35</b>	0.0251 U	<b>0.92</b>	0.0247 U	<b>0.347</b>	<b>2.21</b>	0.0279 U	7
Ethylbenzene	<b>12</b>	<b>0.19</b>	<b>0.12</b>	<b>100</b>	0.0301 U	<b>0.124</b>	0.0297 U	0.0311 U	<b>0.104</b>	0.0335 U	6
Total Xylenes	<b>35.4</b>	<b>1.08</b>	<b>0.19</b>	<b>440</b>	0.0502 U	<b>3.252</b>	0.0494 U	<b>0.686</b>	<b>1.315</b>	0.0559 U	9
1,2 Dibromoethane (EDB)	--	0.057 U	--	1.1 U	--	--	--	--	--	--	0.005
1,2 Dichloroethane (EDC)	--	0.057 U	--	1.1 U	--	--	--	--	--	--	1
Methyl tertiary-butyl ether (MTBE)	--	0.057 U	--	1.1 U	--	--	--	--	--	--	0.1
other VOCs	--	<b>DETECT</b>	--	<b>Detected</b>	--	--	--	--	--	--	varies
<b>Total Metals by EPA 6000 series (mg/kg)</b>											
Arsenic	--	--	--	--	<b>1.53</b>	<b>1.60</b>	<b>3.58</b>	--	--	--	20
Barium	--	--	--	--	<b>40.1</b>	<b>32.0</b>	<b>36.1</b>	--	--	--	16,000
Cadmium	--	--	--	--	0.171 U	0.177 U	0.185 U	--	--	--	2
Total Chromium	--	--	--	--	<b>27.6</b>	<b>26.6</b>	<b>27.2</b>	--	--	--	2,000
Lead	--	--	--	--	<b>1.57</b>	<b>1.62</b>	<b>1.64</b>	--	--	--	250
Mercury	--	--	--	--	0.264 U	0.279 U	0.284 U	--	--	--	2
Selenium	--	--	--	--	<b>1.01</b>	<b>1.07</b>	<b>0.805</b>	--	--	--	400
Silver	--	--	--	--	0.129 U	0.132 U	0.139 U	--	--	--	400
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>											
Acenaphthene	--	--	--	--	0.0209 U	0.0194 U	0.0202 U	--	--	--	4,800
Acenaphthylene	--	--	--	--	0.0209 U	0.0194 U	0.0202 U	--	--	--	NE
Anthracene	--	--	--	--	0.0419 U	0.0389 U	0.0404 U	--	--	--	24,000
Benzo[a]anthracene	--	--	--	--	0.0209 U	0.0194 U	0.0202 U	--	--	--	NE
Benzo(a)pyrene	--	--	--	--	0.0209 U	0.0194 U	0.0202 U	--	--	--	0.1
Benzo(b)fluoranthene	--	--	--	--	0.0209 U	0.0194 U	0.0202 U	--	--	--	NE
Benzo(g,h,i)perylene	--	--	--	--	0.0419 U	0.0389 U	0.0202 U	--	--	--	NE
Benzo(k)fluoranthene	--	--	--	--	0.0209 U	0.0194 U	0.0202 U	--	--	--	NE
Chrysene	--	--	--	--	0.0419 U	0.0389 U	0.0404 U	--	--	--	NE
Dibenzo(a,h)anthracene	--	--	--	--	0.0419 U	0.0389 U	0.0404 U	--	--	--	NE
Fluoranthene	--	--	--	--	0.0419 U	0.0389 U	0.0404 U	--	--	--	3,200
Fluorene	--	--	--	--	0.0209 U	0.0194 U	0.0202 U	--	--	--	3,200
Indeno(1,2,3-cd)pyrene	--	--	--	--	0.0419 U	0.0389 U	0.0404 U	--	--	--	NE
Naphthalenes	--	--	--	--	0.0209 U	<b>0.0596</b>	0.0202 U	--	--	--	5
Phenanthrene	--	--	--	--	0.0419 U	0.0389 U	0.0404 U	--	--	--	NE
Pyrene	--	--	--	--	0.0419 U	0.0389 U	0.0404 U	--	--	--	2,400
cPAHs TEQ <sup>6</sup>	--	--	--	--	0.016 U	0.015 U	0.015 U	--	--	--	0.1
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>											
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	NA
Total PCBs	--	--	--	--	--	--	--	--	--	--	1.0

**Notes:**

- <sup>1</sup> Approximate exploration locations shown on Figure 3.
- <sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.
- <sup>3</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses. MTCA Method B cleanup level used when Method A cleanup level has not been established.
- <sup>4</sup> When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.
- <sup>5</sup> For VOCs, only gasoline-range organic constituent compounds are presented in Table 1. A full list of compounds tested refer to the laboratory reports in Appendix B.
- <sup>6</sup> Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology in WAC 173-340-708(8). Non-detections were assigned half the reporting limit for these calculations.

bgs = below ground surface  
mg/kg = milligram per kilogram  
HVOCs = halogenated VOCs  
Farallon = Farallon Consulting  
Landau = Landau Associates  
EAI = Environmental Associates, Inc.  
GeoGroup = GEO Group Northwest, Inc.  
GEI = GeoEngineers Inc.  
NA = Not Applicable  
NE = Not Established  
"--" = not tested  
ND = Not Detected  
U = Analyte not detected above the reported sample quantization limit  
**Bold** indicates analyte was detected.  
Shading indicates analyte was detected at a concentration greater than the MTCA cleanup level.

**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	GEI-3			GEI-4		GEI-5		GEI-6		GEI-7	MTCA Cleanup Levels <sup>3</sup>
	Sample Identification	GEI-3-5.0	GEI-3-15.0	GEI-3-17.5	GEI-4-2.5	GEI-4-12.5	GEI-5-2.5	GEI-5-10.0	GEI-6-2.5	GEI-6-10.0	
Sampled By	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	
Sample Date	05/19/21	05/19/21	05/19/21	12/29/21	12/29/21	12/29/21	05/19/21	12/29/21	05/19/21	12/29/21	
Sample Depth (feet bgs)	5.0	15.0	17.5	2.5	12.5	2.5	10.0	2.5	10.0	2.5	
<b>Petroleum Hydrocarbons by NWPTH-Gx/NWTPH-Dx (mg/kg)</b>											
Gasoline-Range	4.37 U	<b>10,500</b>	5.80 U	5.17 U	5.27 U	4.93 U	4.86 U	5.35 U	5.57 U	4.86 U	30/100 <sup>4</sup>
Diesel-Range	--	--	--	58.1 U	56.8 U	50.1 U	60.2 U	54.4 U	61 U	57 U	2,000
Lube Oil-Range	--	--	--	116 U	114 U	100 U	120 U	<b>689</b>	122 U	<b>448</b>	2,000
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>											
Benzene	0.0175 U	<b>13.2</b>	0.232 U	0.0207 U	0.0211 U	0.0197 U	0.0195 U	0.0214 U	0.0223 U	0.0194 U	0.03
Toluene	0.0219 U	<b>97.2</b>	0.0290 U	0.0310 U	0.0316 U	0.0296 U	0.0292 U	0.0321 U	0.0334 U	0.0291 U	7
Ethylbenzene	0.0262 U	<b>87.8</b>	0.0348 U	0.0258 U	0.0263 U	0.0247 U	0.0243 U	0.0267 U	0.0278 U	0.0243 U	6
Total Xylenes	0.0437 U	<b>554</b>	0.0580 U	0.0517 U	0.0527 U	0.0493 U	0.0486 U	0.0535 U	0.0557 U	0.0486 U	9
1,2 Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	0.005
1,2 Dichloroethane (EDC)	--	--	--	--	--	--	--	--	--	--	1
Methyl tertiary-butyl ether (MTBE)	--	--	--	--	--	--	--	--	--	--	0.1
other VOCs	--	--	--	--	--	--	--	--	--	--	varies
<b>Total Metals by EPA 6000 series (mg/kg)</b>											
Arsenic	--	--	--	<b>8.35</b>	<b>3.01</b>	<b>7.52</b>	<b>1.77</b>	<b>8.21</b>	<b>5.7</b>	<b>4.34</b>	20
Barium	--	--	--	<b>0.614</b>	<b>86.1</b>	<b>185</b>	<b>43.7</b>	<b>195</b>	<b>130</b>	<b>160</b>	16,000
Cadmium	--	--	--	<b>0.451</b>	0.184 U	<b>0.355</b>	0.199 U	<b>0.635</b>	0.21 U	<b>0.255</b>	2
Total Chromium	--	--	--	<b>53.6</b>	<b>39.3</b>	<b>27.4</b>	<b>25.9</b>	<b>38.2</b>	<b>59.2</b>	<b>34.5</b>	2,000
Lead	--	--	--	<b>340</b>	<b>3.28</b>	<b>93.8</b>	<b>2.04</b>	<b>243</b>	<b>4.79</b>	<b>59.5</b>	250
Mercury	--	--	--	0.288 U	0.286 U	0.267 U	0.281 U	0.295 U	0.32 U	0.287 U	2
Selenium	--	--	--	<b>1.33</b>	<b>1.05</b>	<b>0.861</b>	<b>0.691</b>	<b>1.16</b>	<b>1.45</b>	<b>1</b>	400
Silver	--	--	--	<b>0.165</b>	0.138 U	0.130 U	0.149 U	<b>0.25</b>	0.158 U	0.14 U	400
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>											
Acenaphthene	--	--	--	0.0234 U	0.0232 U	0.0226 U	0.0229 U	<b>0.0327</b>	0.0256 U	0.0221 U	4,800
Acenaphthylene	--	--	--	0.0234 U	0.0232 U	0.0226 U	0.0229 U	<b>0.289</b>	0.0256 U	0.0221 U	NE
Anthracene	--	--	--	0.0234 U	0.0464 U	0.0451 U	0.0458 U	<b>0.767</b>	0.0512 U	0.0442 U	24,000
Benzo[a]anthracene	--	--	--	<b>0.0458</b>	0.0232 U	0.0226 U	0.0229 U	<b>1.32</b>	0.0256 U	0.0221 U	NE
Benzo(a)pyrene	--	--	--	<b>0.044</b>	0.0232 U	0.0226 U	0.0229 U	<b>1.12</b>	0.0256 U	0.0221 U	0.1
Benzo(b)fluoranthene	--	--	--	<b>0.0453</b>	0.0232 U	0.0226 U	0.0229 U	<b>0.825</b>	0.0256 U	0.0221 U	NE
Benzo(g,h,i)perylene	--	--	--	<b>0.0538</b>	0.0232 U	0.0226 U	0.0229 U	<b>0.483</b>	0.0256 U	0.0221 U	NE
Benzo(k)fluoranthene	--	--	--	<b>0.0403</b>	0.0232 U	0.0226 U	0.0229 U	<b>0.856</b>	0.0256 U	0.0221 U	NE
Chrysene	--	--	--	<b>0.0476</b>	0.0464 U	0.0451 U	0.0458 U	<b>1.15</b>	0.0512 U	0.0442 U	NE
Dibenzo(a,h)anthracene	--	--	--	0.0469 U	0.0464 U	0.0451 U	0.0458 U	<b>0.231</b>	0.0512 U	0.0442 U	NE
Fluoranthene	--	--	--	<b>0.0458</b>	0.0464 U	0.0451 U	0.0458 U	<b>2.84</b>	0.0512 U	0.0442 U	3,200
Fluorene	--	--	--	0.0234 U	0.0232 U	0.0226 U	0.0229 U	<b>0.251</b>	0.0256 U	0.0221 U	3,200
Indeno(1,2,3-cd)pyrene	--	--	--	0.0469 U	0.0464 U	0.0451 U	0.0458 U	<b>0.473</b>	0.0512 U	0.0442 U	NE
Naphthalenes	--	--	--	0.0234 U	0.0232 U	0.0226 U	0.0229 U	<b>0.2537</b>	0.0256 U	0.0221 U	5
Phenanthrene	--	--	--	0.0234 U	0.0464 U	0.0451 U	0.0458 U	<b>2.02</b>	0.0512 U	0.0442 U	NE
Pyrene	--	--	--	<b>0.0792</b>	0.0464 U	0.0451 U	0.0458 U	<b>2.65</b>	0.0512 U	0.0442 U	2,400
cPAHs TEQ <sup>6</sup>	--	--	--	0.059 U	0.018 U	0.017 U	0.017 U	<b>0.74</b>	0.018 U	0.017 U	0.1
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>											
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	NA
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	NA
Total PCBs	--	--	--	--	--	--	--	--	--	--	1.0

**Notes:**

- <sup>1</sup> Approximate exploration locations shown on Figure 3.
- <sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.
- <sup>3</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses. MTCA Method B cleanup level used when Method A cleanup level has not been established.
- <sup>4</sup> When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.
- <sup>5</sup> For VOCs, only gasoline-range organic constituent compounds are presented in Table 1. A full list of compounds tested refer to the laboratory reports in Appendix B.
- <sup>6</sup> Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology in WAC 173-340-708(8). Non-detections were assigned half the reporting limit for these calculations.

bgs = below ground surface  
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U = Analyte not detected above the reported sample quantization limit  
**Bold** indicates analyte was detected.  
Shading indicates analyte was detected at a concentration greater than the MTCA cleanup level.

**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	GEI-7		GEI-8		GEI-9		GEI-10		GEI-11		MTCA Cleanup Levels <sup>3</sup>	
	Sample Identification	GEI-7-7.5	GEI-7-14.0	GEI-8-12.5	GEI-8-17.0	GEI-9-12.5	GEI-9-17.5	GEI-10-12.5	GEI-10-17.0	GEI-11-15.0		GEI-11-35.0
Sampled By	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI		GEI
Sample Date	05/19/21	05/19/21	04/04/22	04/04/22	04/04/22	04/04/22	04/04/22	04/04/22	04/04/22	04/04/22		04/04/22
Sample Depth (feet bgs)	7.5	14.0	12.5	17.0	12.5	17.5	12.5	17.0	15.0	35.0		
<b>Petroleum Hydrocarbons by NWPTH-Gx/NWTPH-Dx (mg/kg)</b>												
Gasoline-Range	5.46 U	<b>1,370</b>	9.14 U	5.74 U	6.5 U	6.25 U	5.64 U	5.76 U	<b>41.1</b>	5.88 U	30/100 <sup>4</sup>	
Diesel-Range	64.7 U	58.5 U	--	--	--	--	--	--	--	--	2,000	
Lube Oil-Range	129 U	117 U	--	--	--	--	--	--	--	--	2,000	
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>												
Benzene	0.0218 U	<b>0.15</b>	0.0365 U	0.0230 U	0.0260 U	0.0250 U	0.0228 U	0.0230 U	<b>1.42</b>	0.0235 U	0.03	
Toluene	0.0327 U	<b>0.177</b>	0.0548 U	0.0348 U	0.0390 U	0.0375 U	0.0328 U	0.0346 U	<b>0.418</b>	0.0353 U	7	
Ethylbenzene	0.0273 U	<b>17.1</b>	0.0457 U	0.0287 U	0.0325 U	0.0312 U	0.0282 U	0.0288 U	<b>1.03</b>	0.0294 U	6	
Total Xylenes	0.0546 U	<b>39.08</b>	0.0914 U	0.0574 U	0.0650 U	0.0625 U	0.0564 U	0.0576 U	<b>3.482</b>	0.0588 U	9	
1,2 Dibromoethane (EDB)	0.0109 U	0.0106 U	--	--	--	--	--	--	--	--	0.005	
1,2 Dichloroethane (EDC)	0.0251 U	0.0244 U	--	--	--	--	--	--	--	--	1	
Methyl tertiary-butyl ether (MTBE)	0.0327 U	0.0318 U	--	--	--	--	--	--	--	--	0.1	
other VOCs	ND	<b>Detected</b>	--	--	--	--	--	--	--	--	varies	
<b>Total Metals by EPA 6000 series (mg/kg)</b>												
Arsenic	<b>5.85</b>	<b>7.07</b>	--	--	--	--	--	--	--	--	20	
Barium	<b>134</b>	<b>125</b>	--	--	--	--	--	--	--	--	16,000	
Cadmium	0.203 U	<b>0.189</b>	--	--	--	--	--	--	--	--	2	
Total Chromium	<b>64.1</b>	<b>52.2</b>	--	--	--	--	--	--	--	--	2,000	
Lead	<b>4.82</b>	<b>6.06</b>	--	--	--	--	--	--	--	--	250	
Mercury	<b>0.309</b>	0.294 U	--	--	--	--	--	--	--	--	2	
Selenium	<b>1.62</b>	<b>1.42</b>	--	--	--	--	--	--	--	--	400	
Silver	0.152 U	0.141 U	--	--	--	--	--	--	--	--	400	
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>												
Acenaphthene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	4,800	
Acenaphthylene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	NE	
Anthracene	0.0482 U	0.0498 U	--	--	--	--	--	--	--	--	24,000	
Benzo[a]anthracene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	NE	
Benzo(a)pyrene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	0.1	
Benzo(b)fluoranthene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	NE	
Benzo(g,h,i)perylene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	NE	
Benzo(k)fluoranthene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	NE	
Chrysene	0.0482 U	0.0498 U	--	--	--	--	--	--	--	--	NE	
Dibenzo(a,h)anthracene	0.0482 U	0.0498 U	--	--	--	--	--	--	--	--	NE	
Fluoranthene	0.0482 U	0.0498 U	--	--	--	--	--	--	--	--	3,200	
Fluorene	0.0241 U	0.0249 U	--	--	--	--	--	--	--	--	3,200	
Indeno(1,2,3-cd)pyrene	0.0482 U	0.0498 U	--	--	--	--	--	--	--	--	NE	
Naphthalenes	0.0241 U	<b>0.556</b>	22.1 U	24.5 U	21.2 U	24.8 U	22.3 U	24.1 U	<b>571.6</b>	20.1 U	5	
Phenanthrene	0.0482 U	0.0498 U	--	--	--	--	--	--	--	--	NE	
Pyrene	0.0482 U	0.0498 U	--	--	--	--	--	--	--	--	2,400	
cPAHs TEQ <sup>6</sup>	0.017 U	0.017 U	--	--	--	--	--	--	--	--	0.1	
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>												
Aroclor 1016	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	NA	
Aroclor 1221	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	NA	
Aroclor 1232	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	NA	
Aroclor 1242	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	NA	
Aroclor 1248	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	NA	
Aroclor 1254	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	NA	
Aroclor 1260	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	NA	
Total PCBs	0.0596 U	0.061 U	--	--	--	--	--	--	--	--	1.0	

**Notes:**

- <sup>1</sup> Approximate exploration locations shown on Figure 3.
- <sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.
- <sup>3</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses. MTCA Method B cleanup level used when Method A cleanup level has not been established.
- <sup>4</sup> When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.
- <sup>5</sup> For VOCs, only gasoline-range organic constituent compounds are presented in Table 1. A full list of compounds tested refer to the laboratory reports in Appendix B.
- <sup>6</sup> Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology in WAC 173-340-708(8). Non-detections were assigned half the reporting limit for these calculations.

bgs = below ground surface  
mg/kg = milligram per kilogram  
HVOCs = halogenated VOCs  
Farallon = Farallon Consulting  
Landau = Landau Associates  
EAI = Environmental Associates, Inc.  
GeoGroup = GEO Group Northwest, Inc.  
GEI = GeoEngineers Inc.  
NA = Not Applicable  
NE = Not Established  
"--" = not tested  
ND = Not Detected  
U = Analyte not detected above the reported sample quantization limit  
**Bold** indicates analyte was detected.  
Shading indicates analyte was detected at a concentration greater than the MTCA cleanup level.



**Table 1**  
**Summary of Soil Investigation Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	GEI-12		MTCA Cleanup Levels <sup>3</sup>
	Sample Identification	GEI-12-15.0	
Sampled By	GEI	GEI	
Sample Date	04/04/22	04/04/22	
Sample Depth (feet bgs)	15.0	40.0	
<b>Petroleum Hydrocarbons by NWPTH-Gx/NWTPH-Dx (mg/kg)</b>			
Gasoline-Range	<b>3,220</b>	6.05 U	30/100 <sup>4</sup>
Diesel-Range	--	--	2,000
Lube Oil-Range	--	--	2,000
<b>Volatile Organic Compounds (VOCs) by EPA 8021/8260<sup>5</sup> (mg/kg)</b>			
Benzene	<b>0.739</b>	0.0242 U	0.03
Toluene	0.0403 U	0.0363 U	7
Ethylbenzene	<b>13</b>	0.0303 U	6
Total Xylenes	<b>2.39</b>	0.0605 U	9
1,2 Dibromoethane (EDB)	--	--	0.005
1,2 Dichloroethane (EDC)	--	--	1
Methyl tertiary-butyl ether (MTBE)	--	--	0.1
other VOCs	--	--	varies
<b>Total Metals by EPA 6000 series (mg/kg)</b>			
Arsenic	--	--	20
Barium	--	--	16,000
Cadmium	--	--	2
Total Chromium	--	--	2,000
Lead	--	--	250
Mercury	--	--	2
Selenium	--	--	400
Silver	--	--	400
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270D/SIM (mg/kg)</b>			
Acenaphthene	--	--	4,800
Acenaphthylene	--	--	NE
Anthracene	--	--	24,000
Benzo[a]anthracene	--	--	NE
Benzo(a)pyrene	--	--	0.1
Benzo(b)fluoranthene	--	--	NE
Benzo(g,h,i)perylene	--	--	NE
Benzo(k)fluoranthene	--	--	NE
Chrysene	--	--	NE
Dibenzo(a,h)anthracene	--	--	NE
Fluoranthene	--	--	3,200
Fluorene	--	--	3,200
Indeno(1,2,3-cd)pyrene	--	--	NE
Naphthalenes	<b>4,375</b>	18.9 U	5
Phenanthrene	--	--	NE
Pyrene	--	--	2,400
cPAHs TEQ <sup>6</sup>	--	--	0.1
<b>Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)</b>			
Aroclor 1016	--	--	NA
Aroclor 1221	--	--	NA
Aroclor 1232	--	--	NA
Aroclor 1242	--	--	NA
Aroclor 1248	--	--	NA
Aroclor 1254	--	--	NA
Aroclor 1260	--	--	NA
Total PCBs	--	--	1.0

**Notes:**

<sup>1</sup> Approximate exploration locations shown on Figure 3.

<sup>2</sup> Boring Advanced at an angle of 25 degrees from vertical.

<sup>3</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses. MTCA Method B cleanup level used when Method A cleanup level has not been established.

<sup>4</sup> When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.

<sup>5</sup> For VOCs, only gasoline-range organic constituent compounds are presented in Table 1. A full list of compounds tested refer to the laboratory reports in Appendix B.

<sup>6</sup> Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology in WAC 173-340-708(8). Non-detections were assigned half the reporting limit for these calculations.

bgs = below ground surface

mg/kg = milligram per kilogram

HVOCs = halogenated VOCs

Farallon = Farallon Consulting

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EAI = Environmental Associates, Inc.

GeoGroup = GEO Group Northwest, Inc.

GEI = GeoEngineers Inc.

NA = Not Applicable

NE = Not Established

"-" = not tested

ND = Not Detected

U = Analyte not detected above the reported sample quantization limit

**Bold** indicates analyte was detected.

Shading indicates analyte was detected at a concentration greater than the MTCA cleanup level.

**Table 2**  
**Summary of Groundwater Chemical Analytical Data**  
701 South Jackson Street  
Seattle, Washington

Sample Location <sup>1</sup>	GEI-1	GEI-11	GEI-12	MTCA Cleanup Level <sup>3</sup>
Sample Identification	GEI-1-20210518	GEI-11-W-041122	GEI-12-W-041122	
Sample Date	05/18/21	04/11/22	04/11/22	
Depth To Groundwater (feet bgs)	64.1	57.96	61.56	
Groundwater Elevation <sup>2</sup> (feet NAVD88)	33.9	36.04	36.44	
<b>Field Measured Parameters</b>				
pH	--	7.3	7.09	NE
Conductivity (mS/cm)	--	0.64	0.69	NE
Turbidity (NTU)	--	18.8	21.2	NE
Dissolved Oxygen (mg/L)	--	0.84	1.36	NE
Temperature (°C)	--	15.2	15.1	NE
Total Dissolved Solids (g/L)	--	0.507	0.553	NE
Oxidation Reduction Potential (mV)	--	136.8	144.1	NE
<b>Petroleum Hydrocarbons by NWTPH-G/Dx (µg/L)</b>				
Gasoline-Range Petroleum Hydrocarbons	54.6	694	142	800/1,000 <sup>4</sup>
Diesel-Range Petroleum Hydrocarbons	176	117 U	117 U	500
Heavy Oil-Range Petroleum Hydrocarbons	98.2 U	117 U	117 U	500
<b>Volatile Organic Compounds (VOCs) by EPA 8260D (µg/L)</b>				
Benzene	0.440 U	2.06	0.440 U	5
Toluene	0.750	9.89	0.750 U	100
Ethylbenzene	0.980	8.28	1.06	700
Total Xylenes	3.274	48.9	1.2	1,000
<b>Total Metals by EPA 200.8/245.1 (µg/L)</b>				
Arsenic	6.75	2.94	2.85	8 <sup>5</sup>
Cadmium	0.247	0.200 U	0.200 U	5
Total Chromium	8.39	1.00 U	1.10	50
Lead	4.61	0.500 U	0.500 U	15
Mercury	0.304	0.100 U	0.100 U	2
<b>Dissolved Metals by EPA 200.8/245.1 (µg/L)</b>				
Arsenic	1.23	2.95	2.91	5
Cadmium	0.125 U	0.125 U	0.125 U	5
Total Chromium	0.750 U	0.750 U	0.752	50
Lead	0.500 U	0.500 U	0.500 U	15
Mercury	0.100 U	0.100 U	0.100 U	2
<b>Polycyclic Aromatic Hydrocarbons (PAHs) by EPA 8270 (µg/L)</b>				
1-Methylnaphthalene	0.105	0.156	0.620	1.5
2-Methylnaphthalene	0.170	0.259	0.799	32
Acenaphthene	0.0994 U	0.099 U	0.0997 U	960
Acenaphthylene	0.0994 U	0.099 U	0.0997 U	NE
Anthracene	0.0994 U	0.099 U	0.0997 U	4,800
Benzo[a]anthracene	0.0994 U	0.099 U	0.0997 U	NE
Benzo(a)pyrene	0.0994 U	0.099 U	0.0997 U	NE
Benzo(b)fluoranthene	0.0994 U	0.099 U	0.0997 U	NE
Benzo(g,h,i)perylene	0.0994 U	0.099 U	0.0997 U	NE
Benzo(k)fluoranthene	0.0994 U	0.099 U	0.0997 U	0.1
Chrysene	0.0994 U	0.099 U	0.0997 U	NE
Dibenzo(a,h)anthracene	0.0994 U	0.099 U	0.0997 U	NE
Fluoranthene	0.0994 U	0.099 U	0.0997 U	640
Fluorene	0.0994 U	0.099 U	0.0997 U	640
Indeno(1,2,3-cd)pyrene	0.0994 U	0.099 U	0.0997 U	NE
Naphthalene	0.263	0.759	0.521	160
Phenanthrene	0.0994 U	0.099 U	0.0997 U	NE
Pyrene	0.0994 U	0.099 U	0.0997 U	480
Total cPAHs TEQ <sup>6</sup>	0.0994 U	0.099 U	0.0997 U	0.1

**Notes:**

<sup>1</sup> Approximate sample locations are shown on Figures 1 through 3.

<sup>2</sup> Groundwater elevation referenced to the approximate ground surface elevation (North American Vertical Datum 1988 [NAVD88]).

<sup>3</sup> Washington State Model Toxic Control Act Cleanup Regulation (MTCA) Method A Groundwater Cleanup Levels. MTCA Method B cleanup level used when Method A cleanup level has not been established.

<sup>4</sup> When benzene is present, the gasoline range cleanup level is 800 µg/L. When benzene is not present the gasoline range cleanup level is 1,000 µg/L.

<sup>5</sup> Natural background concentration for Puget Sound groundwater (Ecology 2021).

<sup>6</sup> Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology in WAC 173-340-708(8). Non-detections were assigned half the reporting limit for these calculations.

bgs = below ground surface

µg/L = micrograms per liter

MTCA = Model Toxics Cleanup Act

EPA = United States Environmental Protection Agency

U = chemical of concern not detected greater than the laboratory reporting limit shown

-- = not analyzed

NE = not established

NA = not applicable

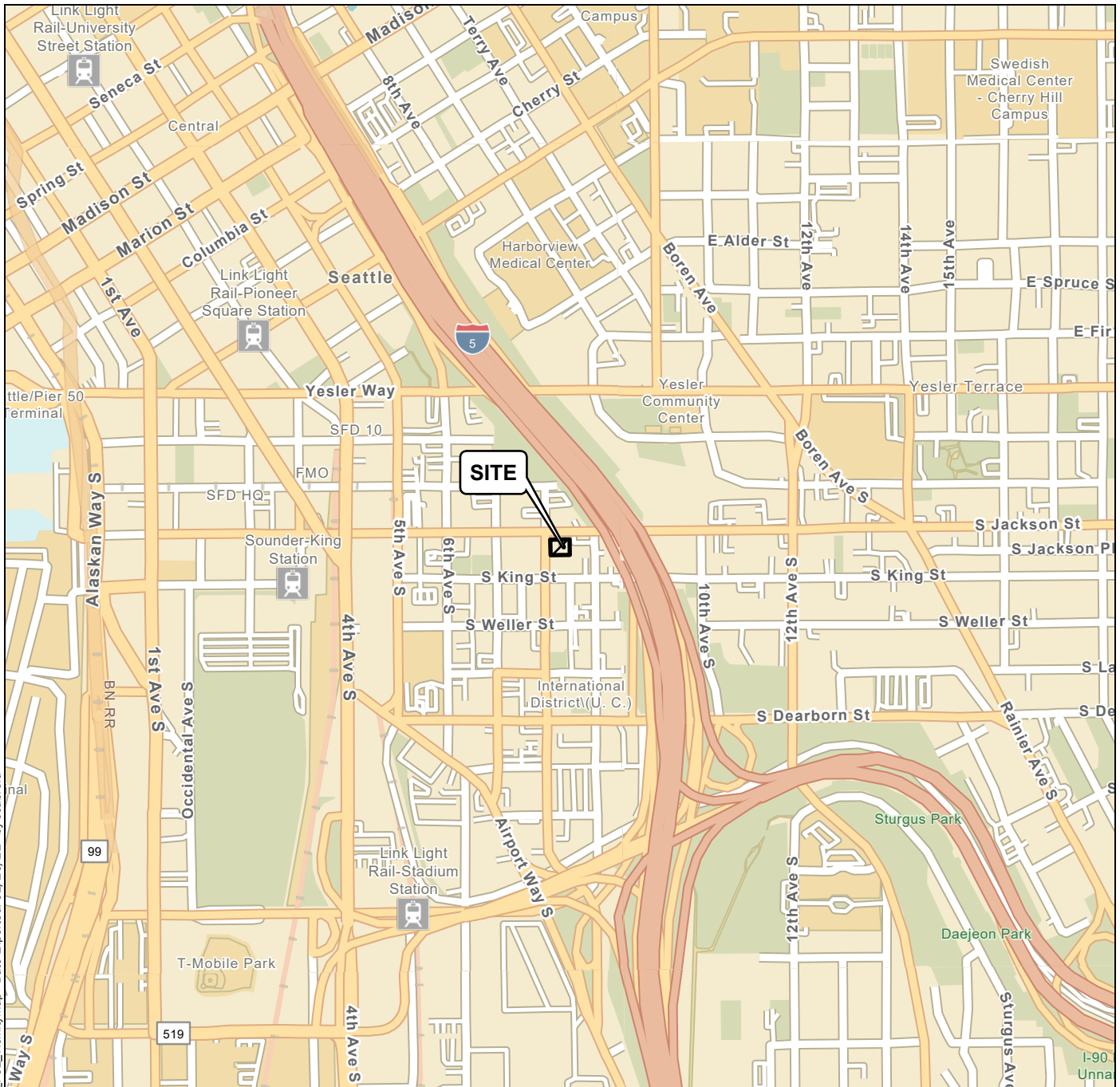
**Bold** font type indicates the chemical of concern was detected.

Yellow shading indicates analyte was detected at a concentration greater than the MTCA cleanup level.

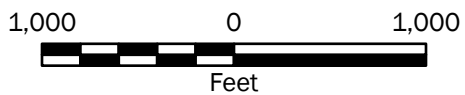
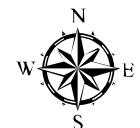
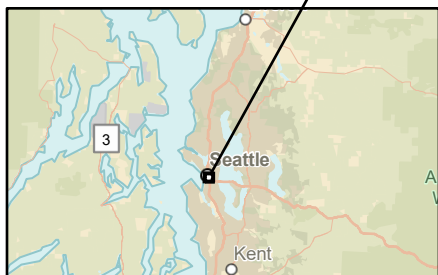
Chemical analytical testing by Fremont Analytical of Seattle, Washington.







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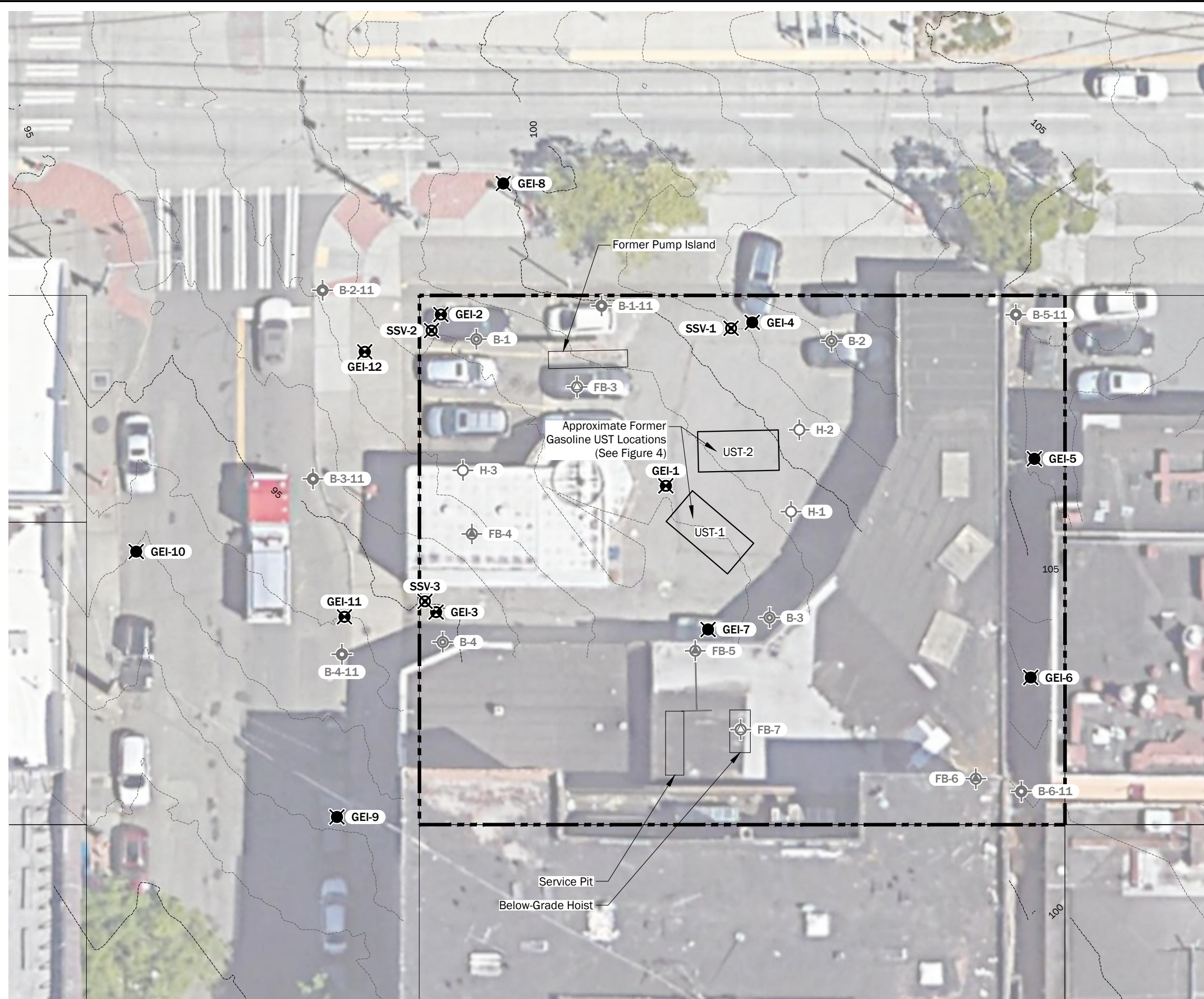
**Notes:**

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: ESRI  
 Projection: NAD 1983 UTM Zone 10N

<b>Vicinity Map</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 1</b>

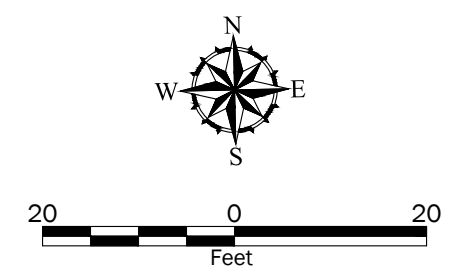




- Legend**
- FB-3 Hollow Stem Auger Boring by Farallon Consulting, 2019
  - FB-4 Direct Push Boring by Farallon Consulting, 2019
  - FB-5 Direct Push Boring by Farallon Consulting, 2019 Completed at 25 degrees to horizontal
  - B-1-11 Hollow Stem Auger Boring by Landau Associates, 2011
  - B-1 Hollow Stem Auger Boring by GEO Group Northwest, 2006
  - H-1 Hollow Stem Auger Boring by GEO Group Northwest, 1992
  - GEI-1 Hollow Stem Auger Boring by GeoEngineers, 2021/2022
  - GEI-4 Direct Push Boring by GeoEngineers, 2021/2022
  - SSV-1 Soil Vapor Boring by GeoEngineers, 2021

- Notes:**
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  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.

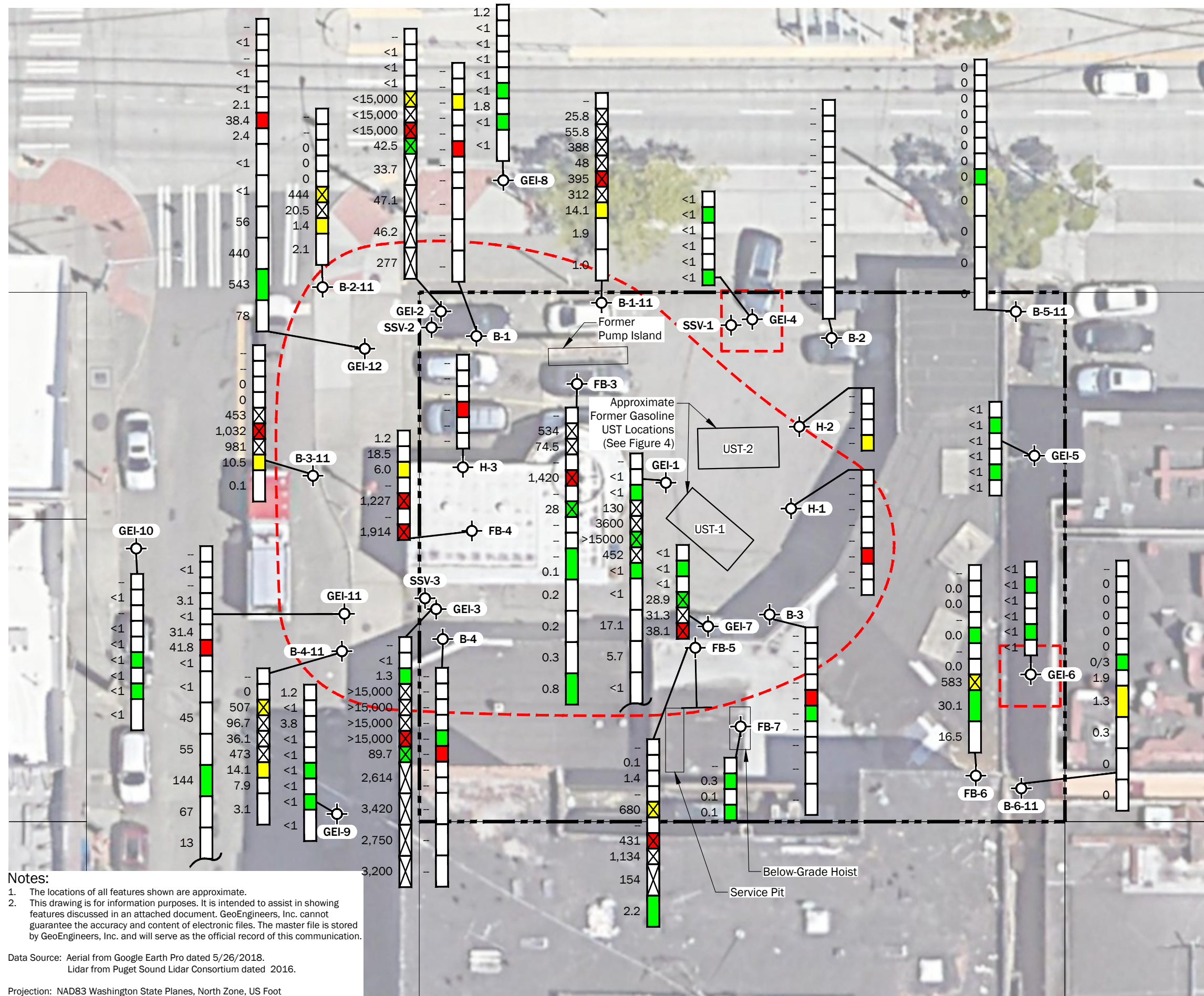
Data Source: Aerial from Google Earth Pro dated 5/26/2018.  
 Lidar from Puget Sound Lidar Consortium dated 2016.  
 Projection: NAD83 Washington State Planes, North Zone, US Foot



<b>Environmental Investigation Sampling Locations</b>	
701 South Jackson Street Seattle, Washington	
	<b>Figure 2</b>

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**Legend**

- FB-4 Investigation Sampling Location
- FB-5 Investigation sampling location completed at 25 degrees to horizontal

**Depth Interval of Soil Samples (bgs)**

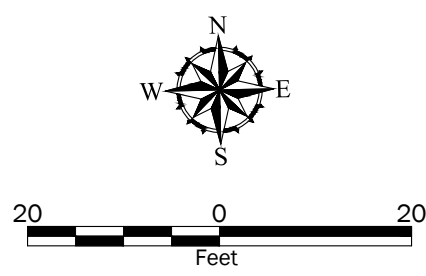
25.8	0-2.5 Feet
55.8	2.5-5.0 Feet
388	5.0-7.5 Feet
48	7.5-10.0 Feet
395	10.0-12.5 Feet
312	12.5-15.0 Feet
14.1	15.0-17.5 Feet
2.8	17.5-20 Feet
1.9	20-25 Feet
1.0	25-30 Feet
0.1	30-35 Feet
0.1	35-40 Feet

Photoionization detector (PID) Field Screening Results in parts per million (ppm)

**Gasoline-Range Total Petroleum Soil Chemical Analytical Results (mg/kg)**

- Not Tested
- Not Detected
- Detected Less than MTCA Method A/B
- Detected Greater than MTCA Method A/B Cleanup Levels
- Elevated Field Screening Indicative of Petroleum Contamination

Estimated Lateral Extent of Soil with Contaminant Concentrations Greater Than the MTCA Method A/B Cleanup Levels.



**Notes:**

- The locations of all features shown are approximate.
- 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: Aerial from Google Earth Pro dated 5/26/2018.  
 Lidar from Puget Sound Lidar Consortium dated 2016.  
 Projection: NAD83 Washington State Planes, North Zone, US Foot

**Soil Analytical Results - Gasoline Petroleum**

701 South Jackson Street  
 Seattle, Washington

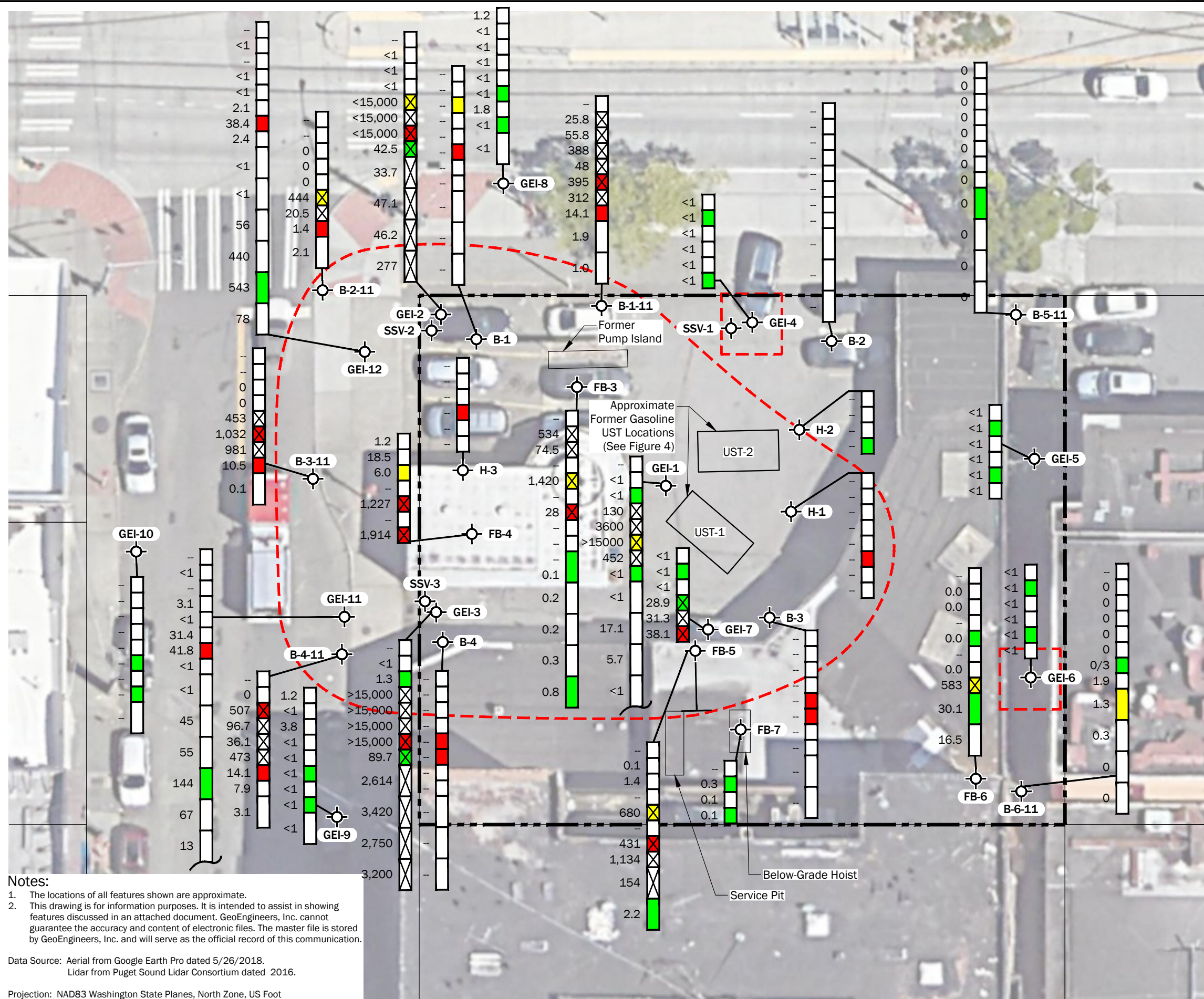
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Figure 3

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**Legend**

- FB-4 Investigation Sampling Location
- FB-5 Investigation sampling location completed at 25 degrees to horizontal

**Depth Interval of Soil Samples (bgs)**

25.8	0-2.5 Feet
55.8	2.5-5.0 Feet
388	5.0-7.5 Feet
48	7.5-10.0 Feet
395	10.0-12.5 Feet
312	12.5-15.0 Feet
14.1	15.0-17.5 Feet
2.8	17.5-20 Feet
1.9	20-25 Feet
1.0	25-30 Feet
0.1	30-35 Feet
0.1	35-40 Feet

**Benzene Soil Chemical Analytical Results (mg/kg)**

- Not Tested
- Not Detected
- Detected Less than MTCA Method A/B
- Detected Greater than MTCA Method A/B Cleanup Levels
- Elevated Field Screening Indicative of Petroleum Contamination

Estimated Lateral Extent of Soil with Contaminant Concentrations Greater Than the MTCA Method A/B Cleanup Levels.

**Notes:**

- The locations of all features shown are approximate.
- 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: Aerial from Google Earth Pro dated 5/26/2018.  
 Lidar from Puget Sound Lidar Consortium dated 2016.  
 Projection: NAD83 Washington State Planes, North Zone, US Foot

**Soil Analytical Results - BTEX**

701 South Jackson Street  
 Seattle, Washington

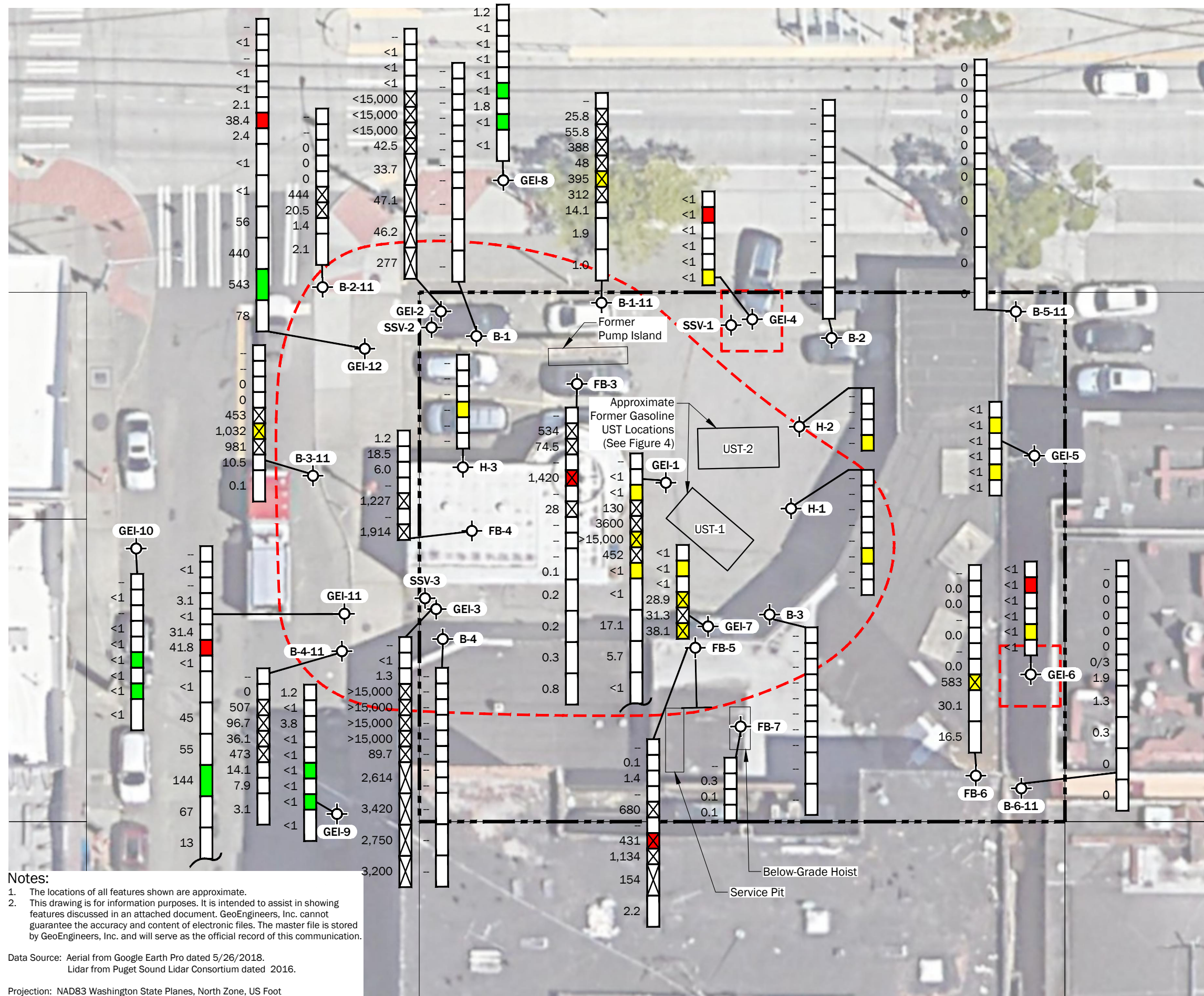
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Figure 4

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**Legend**

- FB-4 Investigation Sampling Location
- FB-5 Investigation sampling location completed at 25 degrees to horizontal

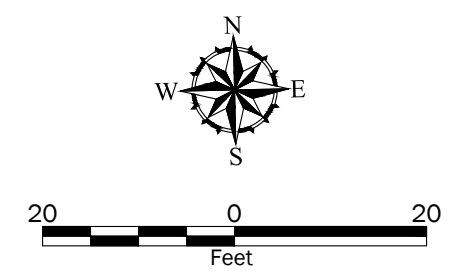
**Depth Interval of Soil Samples (bgs)**

25.8	0-2.5 Feet
55.8	2.5-5.0 Feet
388	5.0-7.5 Feet
48	7.5-10.0 Feet
395	10.0-12.5 Feet
312	12.5-15.0 Feet
14.1	15.0-17.5 Feet
2.8	17.5-20 Feet
1.9	20-25 Feet
1.0	25-30 Feet
0.1	30-35 Feet
0.1	35-40 Feet

**Naphthalene Soil Chemical Analytical Results (mg/kg)**

- Not Tested
- Not Detected
- Detected Less than MTCA Method A/B
- Detected Greater than MTCA Method A/B Cleanup Levels
- Elevated Field Screening Indicative of Petroleum Contamination

Estimated Lateral Extent of Soil with Contaminant Concentrations Greater Than the MTCA Method A/B Cleanup Levels.



**Notes:**

- The locations of all features shown are approximate.
- 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: Aerial from Google Earth Pro dated 5/26/2018.  
 Lidar from Puget Sound Lidar Consortium dated 2016.  
 Projection: NAD83 Washington State Planes, North Zone, US Foot

**Soil Analytical Results - PAHs and Metals**

701 South Jackson Street  
 Seattle, Washington

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Figure 5

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## **APPENDIX A**

### **Field Program**

## **APPENDIX A FIELD PROGRAM**

### **Underground Utility Locate**

Prior to drilling activities, an underground utility locate was conducted in the area of the proposed boring locations to identify any subsurface utilities and/or potential underground physical hazards. An underground utility check consisting of contacting a local utility alert service and a private utility locating service was also performed.

### **Soil Sampling**

Subsurface conditions at the Site were evaluated by completing three direct-push (GEI-8 through GEI-10) and two hollow-stem auger (GEI-11 and GEI-12) soil borings using equipment owned and operated by Cascade Drilling of Woodinville, a Washington state-licensed drilling company. The borings extended to depths ranging from approximately 25 to 75 feet below the ground surface (bgs). A representative from our staff classified the soil encountered in each of the borings. Soil in the explorations was visually classified in general accordance with ASTM International (ASTM) D 2488-00. The boring logs are presented on Figures A-2 through A-6. The key for boring log symbols and terminology is presented on Figure A-1.

The sampling equipment was decontaminated before each sampling attempt with a Liqui-Nox® solution wash and a distilled water rinse. Soil samples were obtained for field screening and possible chemical analysis. Soil samples obtained during the exploration activities were collected from the sampler with a decontaminated stainless-steel knife or new nitrile gloves. A portion of each sample was placed in laboratory-prepared sample jars for possible chemical analysis. The remaining portion of each sample was used for field screening. Samples for volatile organic compound and/or gasoline-range petroleum hydrocarbon analysis were collected using Ecology's 5035A sampling methodology.

The soil samples were placed in a cooler with ice for transport to Fremont Analytical of Seattle, Washington. Standard chain-of-custody procedures were followed in transporting the soil samples to the laboratory.

### **Field Screening of Soil Samples**

Soil samples obtained from the borings were screened in the field for evidence of contamination using: (1) visual examination; (2) sheen screening; and/or (3) photoionization detector (PID). The results of headspace and sheen screening are included on the attached boring logs.

Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons, such as motor oil or hydraulic oil, or when hydrocarbon concentrations are high. Sheen screening and headspace vapor screening are more sensitive methods that have been effective in detecting contamination at concentrations less than regulatory cleanup guidelines. Sheen screening involves placing soil in a pan of water and observing the water surface for signs of sheen. Sheen classifications are as follows:

- No Sheen (NS) No visible sheen on water surface.
- Slight Sheen (SS) Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
- Moderate Sheen (MS) Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on water surface.
- Heavy Sheen (HS) Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening involves placing a soil sample in a plastic sample bag. Air is captured in the bag and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a PID is inserted in the bag and the instrument measures the concentration of combustible vapor in the air removed from the sample headspace. The PID measures concentrations in ppm (parts per million) and is calibrated to isobutylene. The PID is designed to quantify combustible gas and organic vapor concentrations up to 2,500 ppm. Field screening results are site-specific and vary with soil type, soil moisture content, temperature and type of contaminant.

## **Groundwater Monitoring**

### **Depth to Groundwater**

The depths to the groundwater table relative to ground surface were measured using an electric water level indicator (e-tape) and based on observations from soil samples in borings that were not sampled for groundwater. The e-tape was decontaminated with a Liqui-Nox® solution wash and a distilled water rinse prior to use at each location.

### **Groundwater Sampling**

Groundwater samples were obtained using a bladder pump and new dedicated plastic tubing. The water samples were transferred in the field to laboratory-prepared sample containers and kept cool during transport to Fremont Analytical. The sample containers were filled completely to eliminate headspace in the container. Chain-of-custody procedures were followed in transporting the water samples to the testing laboratory.

### **Investigative Waste Disposal**

Drill cuttings and decontamination/purge water generated during drilling activities were temporarily stored on Site in labeled 35- and/or 55-gallon drums pending off-site disposal to a permitted facility.

## 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>		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		<b>ML</b>	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
		LIQUID LIMIT LESS THAN 50		<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
		LIQUID LIMIT LESS THAN 50		<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
		LIQUID LIMIT GREATER THAN 50		<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY
		LIQUID LIMIT GREATER THAN 50		<b>OH</b>	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				<b>PT</b>	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	
	<b>AC</b>	Asphalt Concrete
	<b>CC</b>	Cement Concrete
	<b>CR</b>	Crushed Rock/ Quarry Spalls
	<b>SOD</b>	Sod/Forest Duff
	<b>TS</b>	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



Figure A-1

Drilled	Start 4/4/2022	End 4/4/2022	Total Depth (ft)	25	Logged By Checked By	NRS RST	Driller	Cascade Drilling LP	Drilling Method	Direct Push
Surface Elevation (ft) Vertical Datum	99.5 NAVD88				Hammer Data	Pneumatic			Drilling Equipment	Track-mounted probe
Latitude Longitude	47.59912 -122.323548				System Datum	Decimal Degrees WGS84			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	28					CC	Approximately 6 inches of concrete cement				
						GP	Approximately 6 inches crushed asphalt cement with gravel and sand	SS	1.2		
						GP	Approximately 6 inches crushed concrete cement				
						SM	Brown silty fine to coarse sand with occasional gravel (moist)	NS	<1		
						ML	Gray silt (moist)	NS	<1		
						SM	Gray silty fine to coarse sand (moist)	NS	<1		
						ML	Gray silt (moist)				
5	40										
						SM	Gray-brown silty fine to coarse sand (moist)	NS	<1		
						SM	Brown silty fine to coarse sand (moist)	NS	<1		
10	39					ML	Gray silt with sand lenses (moist)	NS	<1		
						SM	Brown silty fine to coarse sand (moist)	NS	<1		
						SM	Gray silty fine to coarse sand (moist)	NS	<1		
15						ML	Brown silt (moist)	NS	<1		
						SM	Gray silty fine to coarse sand (moist)	SS	1.8		
						ML	Brown silt with sand lenses (moist)	NS	<1		
						ML	Gray silt (moist)	NS	<1		
						SM	Brown silty fine to medium sand (moist)	NS	<1		
20	49										
						ML	Gray silt (moist)	NS	<1		
25											

Note: See Figure C-1 for explanation of symbols.  
Coordinates Data Source: Horizontal approximated based on North American Datum 1983 (NAD83). Vertical approximated based on LiDAR from Puget Sound LiDAR Consortium dated 2016.

### Log of Boring GEI-8



Project: 701 South Jackson Street  
Project Location: Seattle, Washington  
Project Number: 24504-001-01

Figure A-2  
Sheet 1 of 1

Date: 5/22 Path: P:\24\24504\001\GINT\24504\001\01.GPJ DBL\Library\Library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\GEB\_ENVIRONMENTAL\_STANDARD\_NO\_GW

Drilled	Start 4/4/2022	End 4/4/2022	Total Depth (ft)	25	Logged By Checked By	NRS RST	Driller	Cascade Drilling LP	Drilling Method	Direct Push
Surface Elevation (ft) Vertical Datum	92.5 NAVD88			Hammer Data	Pneumatic			Drilling Equipment	Track-mounted probe	
Latitude Longitude	47.598778 -122.322714			System Datum	Decimal Degrees WGS84			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	39					AC	Approximately 4 inches of asphalt concrete cement				
						Brick	Approximately 2 inches brick		SS	1.2	
						GP	Approximately 2 inches crushed concrete cement and gravel				
5	41					SM	Brown silty fine to coarse sand (moist)				
						ML	Light brown-brown silt with sand lenses (moist)		SS	3.8	
						SM	Brown silty fine to coarse sand with trace gravel (moist)		NS	<1	
10	50			GEI-9-7.5		ML	Brown-tan silt with sand lenses (moist)		NS	<1	
						ML	Gray silty (moist)		NS	<1	
						SM	Brown silty fine to coarse sand (moist)		NS	<1	
				GEI-9-12.5 CA			Becomes wet				
15	46					ML	Brown-tan silt with sand lenses (moist)		NS	<1	
						ML	Gray silt (moist)		NS	<1	
						MI	Brown silt (moist)		NS	<1	
				GEI-9-17.5 CA		ML	Gray silt with sand lenses (moist)		NS	<1	
20	48					ML	Light brown-gray silt (moist)		NS	<1	
				GEI-9-22.5							

Note: See Figure C-1 for explanation of symbols.  
Coordinates Data Source: Horizontal approximated based on North American Datum 1983 (NAD83). Vertical approximated based on LiDAR from Puget Sound LiDAR Consortium dated 2016.

### Log of Boring GEI-9



Project: 701 South Jackson Street  
Project Location: Seattle, Washington  
Project Number: 24504-001-01

Figure A-3  
Sheet 1 of 1

Date: 5/22 Path: P:\24\24504\001\GINT\24504\001\01.GPJ DBL\library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\ENVIRONMENTAL\_STANDARD\_NO\_GW

Drilled	Start 4/4/2022	End 4/4/2022	Total Depth (ft)	25	Logged By Checked By	NRS RST	Driller	Cascade Drilling LP	Drilling Method	Direct Push
Surface Elevation (ft) Vertical Datum	92.5 NAVD88				Hammer Data	Pneumatic			Drilling Equipment	Track-mounted probe
Latitude Longitude	47.598907 -122.323848				System Datum	Decimal Degrees WGS84			Groundwater not observed at time of exploration	
Notes: Boring cleared from the ground surface to approximately 7 feet below ground surface (bgs) using an air knife.										

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						AC	Approximately 4 inches of asphalt concrete pavement				
						Brick	Approximately 2 inches of brick				
						CC	Approximately 12 inches of concrete cement				
90		12				NR	No recovery				
						SM	Brown silty fine to coarse sand (moist)	NS	<1		
						NR	No recovery				
85		36			GEI-10-7.5	SM	Brown silty fine to coarse sand (moist)	NS	<1		
						SM	Gray silty fine to coarse sand (moist)	NS	<1		
10		45				ML	Gray silt (moist)	NS	<1		
80					GEI-10-12.5 CA	SM	Brown silty fine to coarse sand with silt lenses (moist)	NS	<1		
						ML	Gray silt (moist)	NS	<1		
						SM	Brown silty fine to medium sand (moist)	NS	<1		
15		60				ML	Gray-brown silt (moist)	NS	<1		
75					GEI-10-17.5 CA	SM	Brown silty fine to coarse sand (moist)	NS	<1		
						SM	Brown silty fine to coarse sand with silt lenses (moist)	NS	<1		
20					GEI-10-22.5	SM	Brown silty fine to coarse sand with silt lenses (moist)	NS	<1		
25											

Note: See Figure C-1 for explanation of symbols.  
Coordinates Data Source: Horizontal approximated based on North American Datum 1983 (NAD83). Vertical approximated based on LiDAR from Puget Sound LiDAR Consortium dated 2016.

### Log of Boring GEI-10

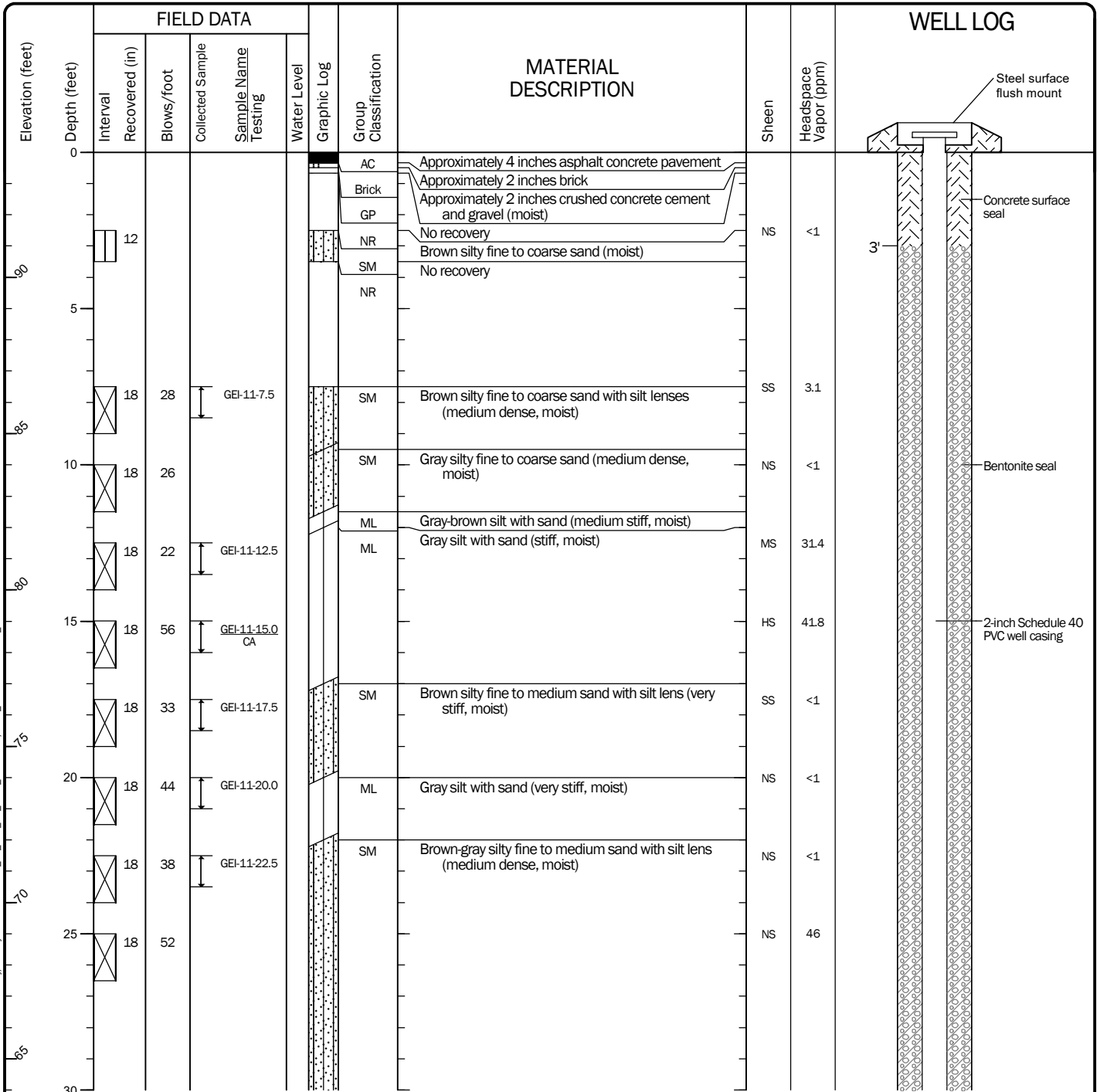


Project: 701 South Jackson Street  
Project Location: Seattle, Washington  
Project Number: 24504-001-01

Date: 5/22 Path: P:\24\24504\001\GINT\24504\001\01.GPJ DBL:library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\GEB\_ENVIRONMENTAL\_STANDARD\_NO\_GW



Start Drilled 4/5/2022	End 4/5/2022	Total Depth (ft) 71.5	Logged By Checked By NRS RST	Driller Cascade Drilling LP	Drilling Method Hollow-stem Auger
Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment Truck-mounted drill rig	DOE Well I.D.: BNC 885 A 2-in well was installed on 4/5/2022 to a depth of 70 ft.		
Surface Elevation (ft) Vertical Datum	94 NAVD88	Top of Casing Elevation (ft)	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
Latitude Longitude	47.598851 -122.323695	Horizontal Datum	Decimal Degrees WGS84	4/5/2022	61.34 32.66
Notes: Boring cleared from the ground surface to approximately 7 feet below ground surface (bgs) using an air knife.					



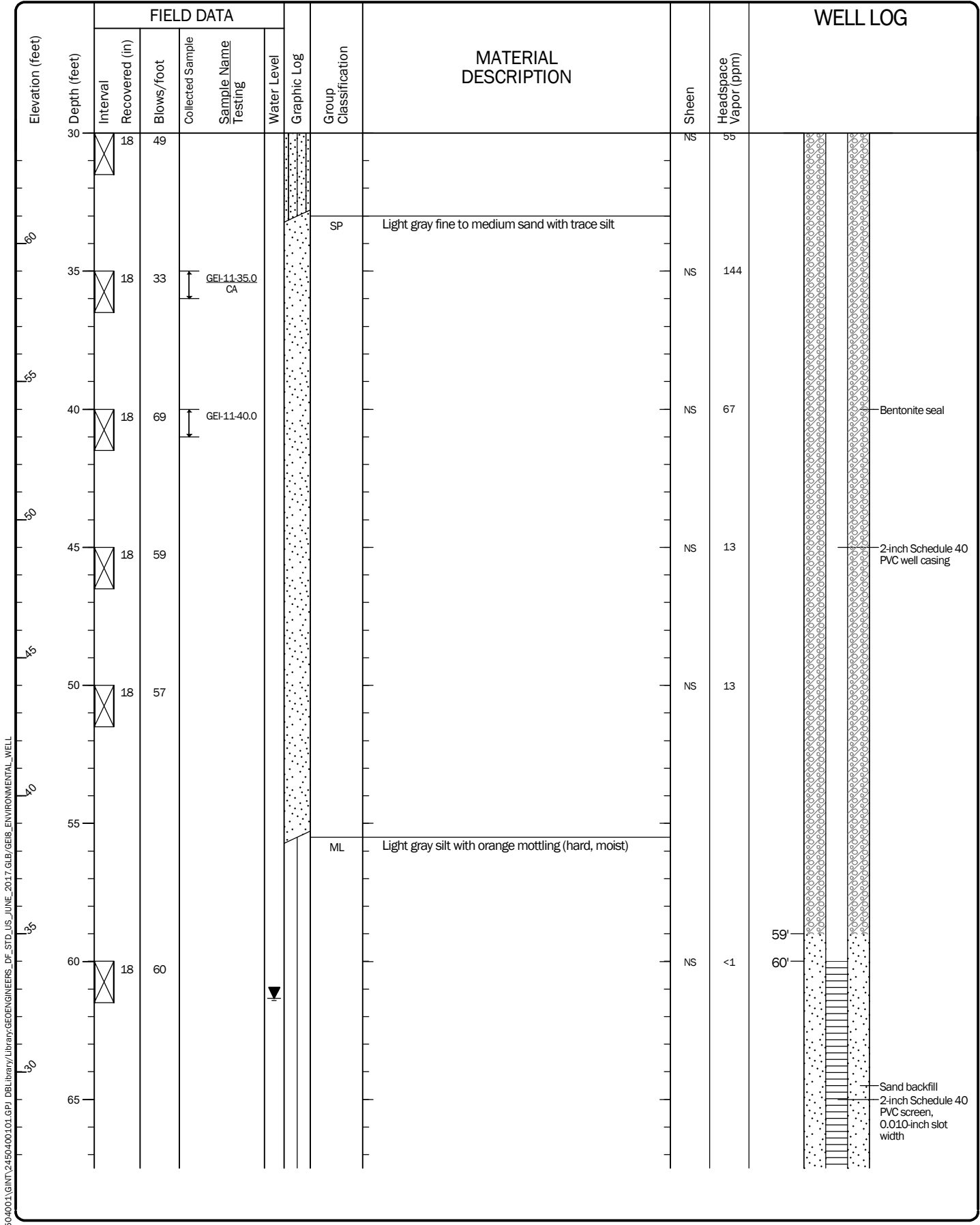
Note: See Figure C-1 for explanation of symbols.  
Coordinates Data Source: Horizontal approximated based on North American Datum 1983 (NAD83). Vertical approximated based on LiDAR from Puget Sound LiDAR Consortium dated 2016.

### Log of Boring with Monitoring Well GEI-11



Project: 701 South Jackson Street  
Project Location: Seattle, Washington  
Project Number: 24504-001-01

Date: 5/22/22 Path: P:\24\24504-001\GINT\24504-001-01.GPJ DBL:library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\GEB\_ENVIRONMENTAL\_WELL



Date: 5/22 Path: P:\24\24504001\GINT\24504001.GPJ DBL\library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\GEBL\_ENVIRONMENTAL\_WELL

**Log of Boring with Monitoring Well GEI-11 (continued)**



Project: 701 South Jackson Street  
 Project Location: Seattle, Washington  
 Project Number: 24504-001-01

Figure A-5  
Sheet 2 of 3

Date: 5/22 Path: P:\24\24504001\GINT\24504001.GPJ DBL\library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\GEIS\_ENVIRONMENTAL\_WELL

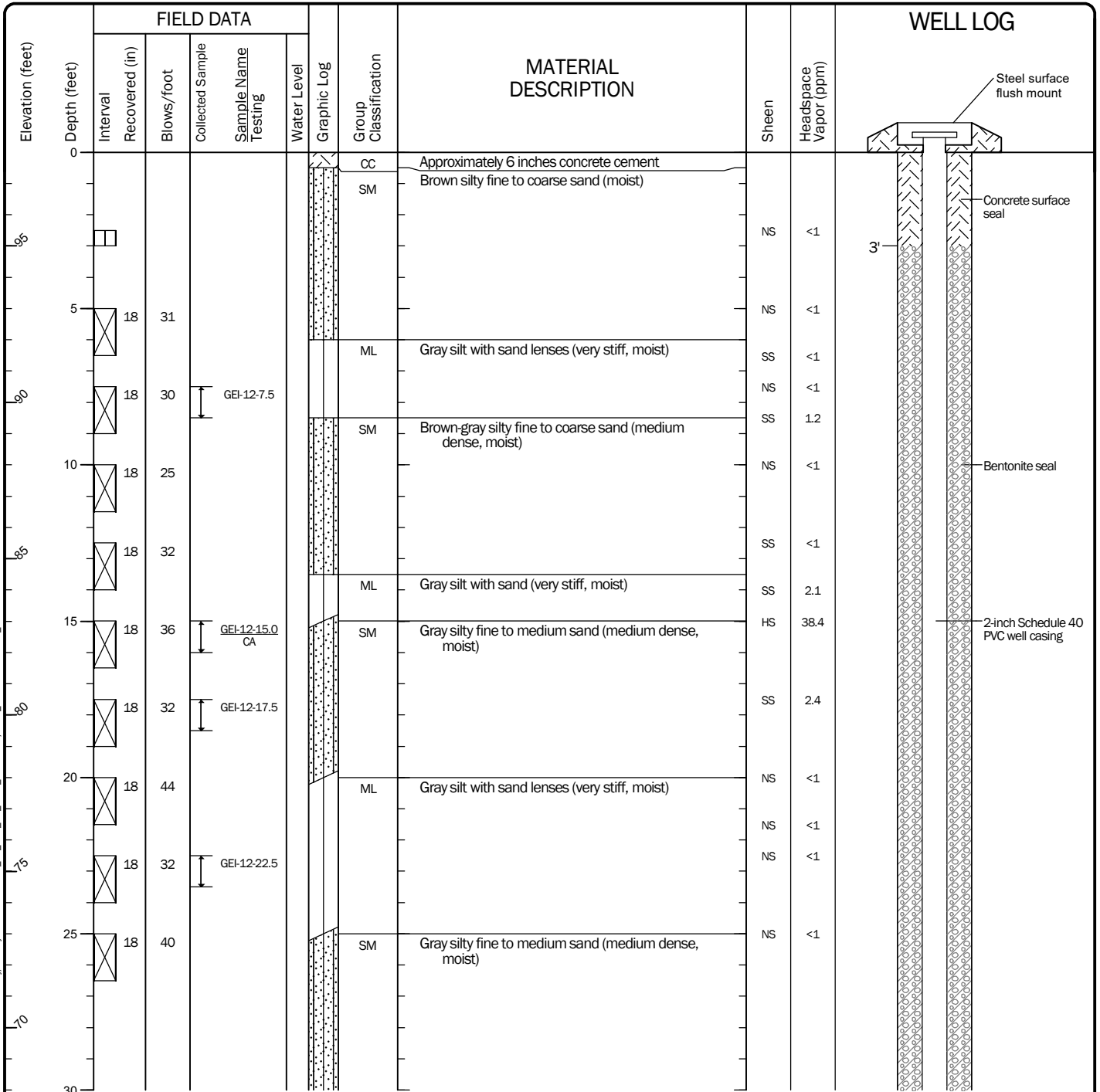
Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	WELL LOG	
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level					Graphic Log
70		18	61						NS	<1	

**Log of Boring with Monitoring Well GEI-11 (continued)**



Project: 701 South Jackson Street  
 Project Location: Seattle, Washington  
 Project Number: 24504-001-01

Start Drilled 4/6/2022	End 4/6/2022	Total Depth (ft) 75	Logged By Checked By NRS RST	Driller Cascade Drilling LP	Drilling Method Hollow-stem Auger
Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment Truck-mounted drill rig	DOE Well I.D.: BNC 886 A 2-in well was installed on 4/6/2022 to a depth of 75 ft.		
Surface Elevation (ft) Vertical Datum	98 NAVD88	Top of Casing Elevation (ft)	Groundwater Date Measured 4/6/2022		
Latitude Longitude	47.599017 -122.323695	Horizontal Datum WGS84	Decimal Degrees	Depth to Water (ft) 66.78	Elevation (ft) 31.22
Notes: Boring cleared from the ground surface to approximately 4 feet below ground surface (bgs) using hand tools.					



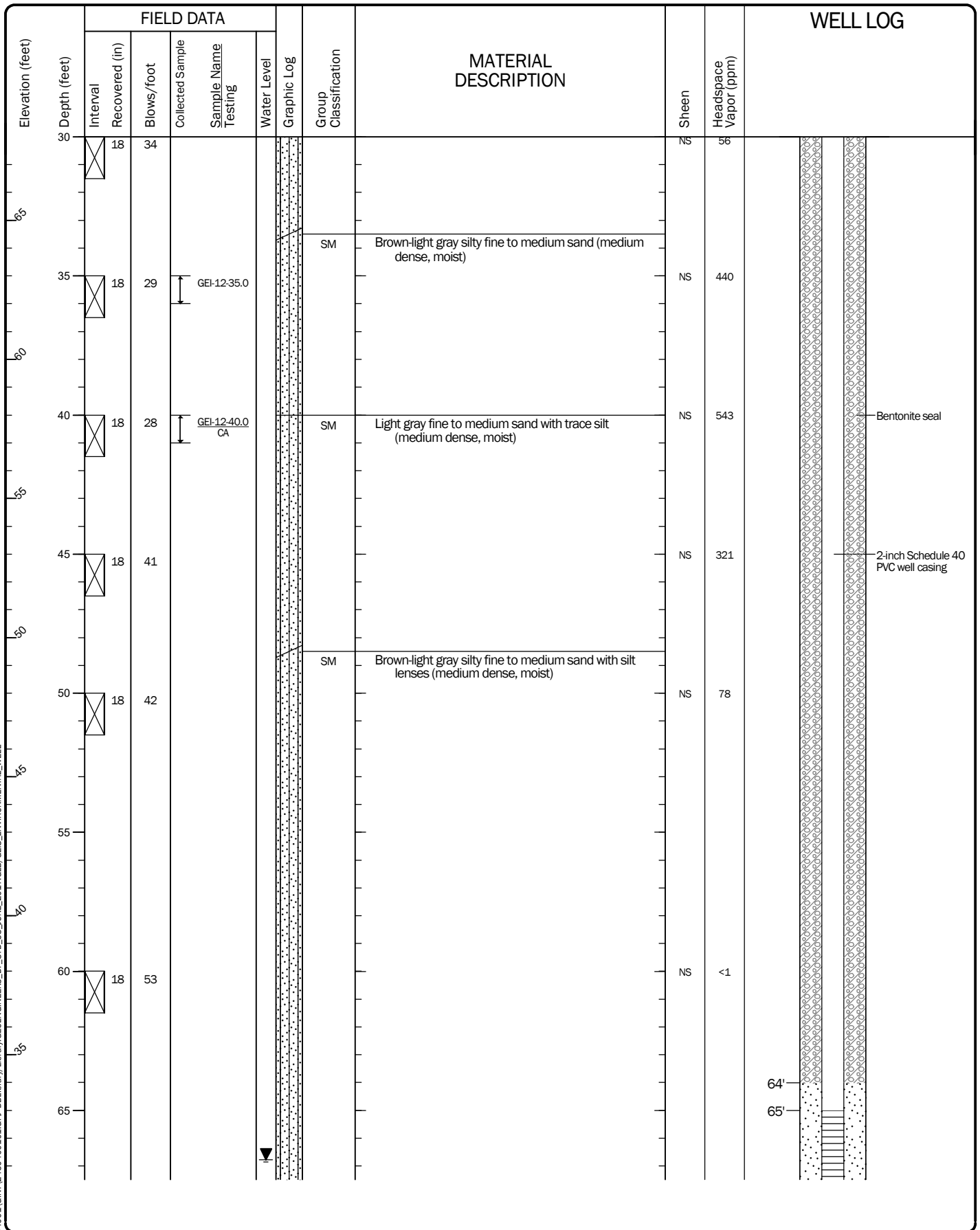
Note: See Figure C-1 for explanation of symbols.  
Coordinates Data Source: Horizontal approximated based on North American Datum 1983 (NAD83). Vertical approximated based on LiDAR from Puget Sound LiDAR Consortium dated 2016.

### Log of Boring with Monitoring Well GEI-12



Project: 701 South Jackson Street  
Project Location: Seattle, Washington  
Project Number: 24504-001-01

Date: 5/22 Path: P:\24\24504-001\GINT\24504-001-01.GPJ DBL\library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\GEB\_ENVIRONMENTAL\_WELL



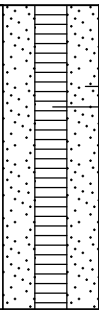
Date: 5/22 Path: P:\24\24504001\GINT\24504001.GPJ DBL\library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017\GLB\GEI6\_ENVIRONMENTAL\_WELL

**Log of Boring with Monitoring Well GEI-12 (continued)**



Project: 701 South Jackson Street  
 Project Location: Seattle, Washington  
 Project Number: 24504-001-01

Date: 5/22 Path: P:\24\24504001\GINT\24504001.GPJ DBL\library\library\GEOENGINEERS\_DF\_STD\_US\_JUNE\_2017.GLB\GEBL\_ENVIRONMENTAL\_WELL

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	WELL LOG	
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level					Graphic Log
70	18	42					SM	Gray silty fine to coarse sand (medium dense, wet)	NS	<1	 <p>Sand backfill 2-inch Schedule 40 PVC screen, 0.010-inch slot width</p>
75											

**Log of Boring with Monitoring Well GEI-12 (continued)**



Project: 701 South Jackson Street  
 Project Location: Seattle, Washington  
 Project Number: 24504-001-01

**APPENDIX B**  
**Chemical Analytical Program**

## **APPENDIX B**

### **CHEMICAL ANALYTICAL PROGRAM**

#### **Analytical Methods**

Chain-of-custody procedures were followed during the transport of the field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical method reference and laboratory quality control (QC) records are included in this appendix. The analytical results are also summarized in the text and tables of this report.

#### **Analytical Data Review**

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. Data quality exceptions documented by the accredited laboratory were reviewed by GeoEngineers and are addressed in the data quality exception section of this appendix.

#### **Analytical Data Review Summary**

Laboratory surrogate recovery limits, matrix spikes, batch QC precision and/or assurance were within control limits based on our review of the laboratory data package. Therefore, in our opinion the data presented in this report are of acceptable quality for their intended use.





**GeoEngineers**

Robert Trahan  
2101 4th Ave, Suite 950  
Seattle, WA 98121

**RE: 701 South Jackson**  
**Work Order Number: 2204073**

April 13, 2022

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 19 sample(s) on 4/5/2022 for the analyses presented in the following report.

***Gasoline by NWTPH-Gx***  
***Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)***  
***Sample Moisture (Percent Moisture)***  
***Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager



**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson  
**Work Order:** 2204073

**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2204073-001	GEI-8-7.5	04/04/2022 10:45 AM	04/05/2022 2:59 PM
2204073-002	GEI-8-12.5	04/04/2022 10:55 AM	04/05/2022 2:59 PM
2204073-003	GEI-8-17.0	04/04/2022 11:05 AM	04/05/2022 2:59 PM
2204073-004	GEI-8-22.5	04/04/2022 11:15 AM	04/05/2022 2:59 PM
2204073-005	GEI-9-7.5	04/04/2022 9:40 AM	04/05/2022 2:59 PM
2204073-006	GEI-9-12.5	04/04/2022 10:05 AM	04/05/2022 2:59 PM
2204073-007	GEI-9-17.5	04/04/2022 10:15 AM	04/05/2022 2:59 PM
2204073-008	GEI-9-22.5	04/04/2022 10:20 AM	04/05/2022 2:59 PM
2204073-009	GEI-10-7.5	04/04/2022 1:35 PM	04/05/2022 2:59 PM
2204073-010	GEI-10-12.5	04/04/2022 1:45 PM	04/05/2022 2:59 PM
2204073-011	GEI-10-17.5	04/04/2022 1:55 PM	04/05/2022 2:59 PM
2204073-012	GEI-10-22.5	04/04/2022 2:05 PM	04/05/2022 2:59 PM
2204073-013	GEI-11-2.5	04/05/2022 9:00 AM	04/05/2022 2:59 PM
2204073-014	GEI-11-12.5	04/05/2022 9:15 AM	04/05/2022 2:59 PM
2204073-015	GEI-11-15.0	04/05/2022 9:20 AM	04/05/2022 2:59 PM
2204073-016	GEI-11-17.5	04/05/2022 9:25 AM	04/05/2022 2:59 PM
2204073-017	GEI-11-22.5	04/05/2022 9:35 AM	04/05/2022 2:59 PM
2204073-018	GEI-11-35.0	04/05/2022 9:50 AM	04/05/2022 2:59 PM
2204073-019	GEI-11-40.0	04/05/2022 10:05 AM	04/05/2022 2:59 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

---

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** GeoEngineers

**Collection Date:** 4/4/2022 10:55:00 AM

**Project:** 701 South Jackson

**Lab ID:** 2204073-002

**Matrix:** Soil

**Client Sample ID:** GEI-8-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	22.1		µg/Kg-dry	1	4/13/2022 4:23:53 AM
2-Methylnaphthalene	ND	22.1		µg/Kg-dry	1	4/13/2022 4:23:53 AM
1-Methylnaphthalene	ND	22.1		µg/Kg-dry	1	4/13/2022 4:23:53 AM
Surr: 2-Fluorobiphenyl	91.9	29.6 - 130		%Rec	1	4/13/2022 4:23:53 AM
Surr: Terphenyl-d14 (surr)	111	38 - 145		%Rec	1	4/13/2022 4:23:53 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	ND	9.14		mg/Kg-dry	1	4/7/2022 6:31:46 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	4/7/2022 6:31:46 PM
Surr: 4-Bromofluorobenzene	100	65 - 135		%Rec	1	4/7/2022 6:31:46 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	ND	0.0365		mg/Kg-dry	1	4/7/2022 6:31:46 PM
Toluene	ND	0.0548		mg/Kg-dry	1	4/7/2022 6:31:46 PM
Ethylbenzene	ND	0.0457		mg/Kg-dry	1	4/7/2022 6:31:46 PM
m,p-Xylene	ND	0.0914		mg/Kg-dry	1	4/7/2022 6:31:46 PM
o-Xylene	ND	0.0457		mg/Kg-dry	1	4/7/2022 6:31:46 PM
Surr: Dibromofluoromethane	86.3	80 - 120		%Rec	1	4/7/2022 6:31:46 PM
Surr: Toluene-d8	98.0	80 - 120		%Rec	1	4/7/2022 6:31:46 PM
Surr: 1-Bromo-4-fluorobenzene	97.0	80 - 120		%Rec	1	4/7/2022 6:31:46 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	12.7	0.500		wt%	1	4/11/2022 10:57:50 AM
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# Analytical Report

Work Order: 2204073  
Date Reported: 4/13/2022

**Client:** GeoEngineers  
**Project:** 701 South Jackson  
**Lab ID:** 2204073-003  
**Client Sample ID:** GEI-8-17.0

**Collection Date:** 4/4/2022 11:05:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	24.5		µg/Kg-dry	1	4/13/2022 4:51:51 AM
2-Methylnaphthalene	ND	24.5		µg/Kg-dry	1	4/13/2022 4:51:51 AM
1-Methylnaphthalene	ND	24.5		µg/Kg-dry	1	4/13/2022 4:51:51 AM
Surr: 2-Fluorobiphenyl	87.9	29.6 - 130		%Rec	1	4/13/2022 4:51:51 AM
Surr: Terphenyl-d14 (surr)	104	38 - 145		%Rec	1	4/13/2022 4:51:51 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	ND	5.74		mg/Kg-dry	1	4/7/2022 7:35:46 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	4/7/2022 7:35:46 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	4/7/2022 7:35:46 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	ND	0.0230		mg/Kg-dry	1	4/7/2022 7:35:46 PM
Toluene	ND	0.0345		mg/Kg-dry	1	4/7/2022 7:35:46 PM
Ethylbenzene	ND	0.0287		mg/Kg-dry	1	4/7/2022 7:35:46 PM
m,p-Xylene	ND	0.0574		mg/Kg-dry	1	4/7/2022 7:35:46 PM
o-Xylene	ND	0.0287		mg/Kg-dry	1	4/7/2022 7:35:46 PM
Surr: Dibromofluoromethane	93.7	80 - 120		%Rec	1	4/7/2022 7:35:46 PM
Surr: Toluene-d8	99.3	80 - 120		%Rec	1	4/7/2022 7:35:46 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	80 - 120		%Rec	1	4/7/2022 7:35:46 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	22.8	0.500		wt%	1	4/11/2022 10:57:50 AM
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**Client:** GeoEngineers

**Collection Date:** 4/4/2022 10:05:00 AM

**Project:** 701 South Jackson

**Lab ID:** 2204073-006

**Matrix:** Soil

**Client Sample ID:** GEI-9-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	21.2		µg/Kg-dry	1	4/13/2022 5:19:50 AM
2-Methylnaphthalene	ND	21.2		µg/Kg-dry	1	4/13/2022 5:19:50 AM
1-Methylnaphthalene	ND	21.2		µg/Kg-dry	1	4/13/2022 5:19:50 AM
Surr: 2-Fluorobiphenyl	85.7	29.6 - 130		%Rec	1	4/13/2022 5:19:50 AM
Surr: Terphenyl-d14 (surr)	111	38 - 145		%Rec	1	4/13/2022 5:19:50 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	ND	6.50		mg/Kg-dry	1	4/7/2022 8:39:24 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	4/7/2022 8:39:24 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	4/7/2022 8:39:24 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	ND	0.0260		mg/Kg-dry	1	4/7/2022 8:39:24 PM
Toluene	ND	0.0390		mg/Kg-dry	1	4/7/2022 8:39:24 PM
Ethylbenzene	ND	0.0325		mg/Kg-dry	1	4/7/2022 8:39:24 PM
m,p-Xylene	ND	0.0650		mg/Kg-dry	1	4/7/2022 8:39:24 PM
o-Xylene	ND	0.0325		mg/Kg-dry	1	4/7/2022 8:39:24 PM
Surr: Dibromofluoromethane	94.6	80 - 120		%Rec	1	4/7/2022 8:39:24 PM
Surr: Toluene-d8	99.4	80 - 120		%Rec	1	4/7/2022 8:39:24 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	80 - 120		%Rec	1	4/7/2022 8:39:24 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	21.4	0.500		wt%	1	4/11/2022 10:57:50 AM
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**Client:** GeoEngineers

**Collection Date:** 4/4/2022 10:15:00 AM

**Project:** 701 South Jackson

**Lab ID:** 2204073-007

**Matrix:** Soil

**Client Sample ID:** GEI-9-17.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	24.8		µg/Kg-dry	1	4/13/2022 5:47:53 AM
2-Methylnaphthalene	ND	24.8		µg/Kg-dry	1	4/13/2022 5:47:53 AM
1-Methylnaphthalene	ND	24.8		µg/Kg-dry	1	4/13/2022 5:47:53 AM
Surr: 2-Fluorobiphenyl	81.7	29.6 - 130		%Rec	1	4/13/2022 5:47:53 AM
Surr: Terphenyl-d14 (surr)	109	38 - 145		%Rec	1	4/13/2022 5:47:53 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	ND	6.25		mg/Kg-dry	1	4/7/2022 9:11:16 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	4/7/2022 9:11:16 PM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	4/7/2022 9:11:16 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	ND	0.0250		mg/Kg-dry	1	4/7/2022 9:11:16 PM
Toluene	ND	0.0375		mg/Kg-dry	1	4/7/2022 9:11:16 PM
Ethylbenzene	ND	0.0312		mg/Kg-dry	1	4/7/2022 9:11:16 PM
m,p-Xylene	ND	0.0625		mg/Kg-dry	1	4/7/2022 9:11:16 PM
o-Xylene	ND	0.0312		mg/Kg-dry	1	4/7/2022 9:11:16 PM
Surr: Dibromofluoromethane	96.0	80 - 120		%Rec	1	4/7/2022 9:11:16 PM
Surr: Toluene-d8	100	80 - 120		%Rec	1	4/7/2022 9:11:16 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	80 - 120		%Rec	1	4/7/2022 9:11:16 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	21.7	0.500		wt%	1	4/11/2022 10:57:50 AM
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**Client:** GeoEngineers  
**Project:** 701 South Jackson  
**Lab ID:** 2204073-010  
**Client Sample ID:** GEI-10-12.5

**Collection Date:** 4/4/2022 1:45:00 PM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	22.3		µg/Kg-dry	1	4/13/2022 6:15:51 AM
2-Methylnaphthalene	ND	22.3		µg/Kg-dry	1	4/13/2022 6:15:51 AM
1-Methylnaphthalene	ND	22.3		µg/Kg-dry	1	4/13/2022 6:15:51 AM
Surr: 2-Fluorobiphenyl	94.6	29.6 - 130		%Rec	1	4/13/2022 6:15:51 AM
Surr: Terphenyl-d14 (surr)	113	38 - 145		%Rec	1	4/13/2022 6:15:51 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	ND	5.64		mg/Kg-dry	1	4/7/2022 9:43:02 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	4/7/2022 9:43:02 PM
Surr: 4-Bromofluorobenzene	99.7	65 - 135		%Rec	1	4/7/2022 9:43:02 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	ND	0.0226		mg/Kg-dry	1	4/7/2022 9:43:02 PM
Toluene	ND	0.0338		mg/Kg-dry	1	4/7/2022 9:43:02 PM
Ethylbenzene	ND	0.0282		mg/Kg-dry	1	4/7/2022 9:43:02 PM
m,p-Xylene	ND	0.0564		mg/Kg-dry	1	4/7/2022 9:43:02 PM
o-Xylene	ND	0.0282		mg/Kg-dry	1	4/7/2022 9:43:02 PM
Surr: Dibromofluoromethane	92.6	80 - 120		%Rec	1	4/7/2022 9:43:02 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	4/7/2022 9:43:02 PM
Surr: 1-Bromo-4-fluorobenzene	96.5	80 - 120		%Rec	1	4/7/2022 9:43:02 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	16.5	0.500		wt%	1	4/11/2022 10:57:50 AM
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# Analytical Report

Work Order: 2204073  
Date Reported: 4/13/2022

**Client:** GeoEngineers  
**Project:** 701 South Jackson  
**Lab ID:** 2204073-011  
**Client Sample ID:** GEI-10-17.5

**Collection Date:** 4/4/2022 1:55:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	24.1		µg/Kg-dry	1	4/13/2022 6:43:50 AM
2-Methylnaphthalene	ND	24.1		µg/Kg-dry	1	4/13/2022 6:43:50 AM
1-Methylnaphthalene	ND	24.1		µg/Kg-dry	1	4/13/2022 6:43:50 AM
Surr: 2-Fluorobiphenyl	89.4	29.6 - 130		%Rec	1	4/13/2022 6:43:50 AM
Surr: Terphenyl-d14 (surr)	108	38 - 145		%Rec	1	4/13/2022 6:43:50 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	ND	5.76		mg/Kg-dry	1	4/7/2022 10:14:45 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	4/7/2022 10:14:45 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	4/7/2022 10:14:45 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	ND	0.0230		mg/Kg-dry	1	4/7/2022 10:14:45 PM
Toluene	ND	0.0346		mg/Kg-dry	1	4/7/2022 10:14:45 PM
Ethylbenzene	ND	0.0288		mg/Kg-dry	1	4/7/2022 10:14:45 PM
m,p-Xylene	ND	0.0576		mg/Kg-dry	1	4/7/2022 10:14:45 PM
o-Xylene	ND	0.0288		mg/Kg-dry	1	4/7/2022 10:14:45 PM
Surr: Dibromofluoromethane	95.8	80 - 120		%Rec	1	4/7/2022 10:14:45 PM
Surr: Toluene-d8	100	80 - 120		%Rec	1	4/7/2022 10:14:45 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	80 - 120		%Rec	1	4/7/2022 10:14:45 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	18.7	0.500		wt%	1	4/11/2022 10:57:50 AM
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**Client:** GeoEngineers  
**Project:** 701 South Jackson  
**Lab ID:** 2204073-015  
**Client Sample ID:** GEI-11-15.0

**Collection Date:** 4/5/2022 9:20:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	308	23.7		µg/Kg-dry	1	4/13/2022 8:08:00 AM
2-Methylnaphthalene	184	23.7		µg/Kg-dry	1	4/13/2022 8:08:00 AM
1-Methylnaphthalene	79.6	23.7		µg/Kg-dry	1	4/13/2022 8:08:00 AM
Surr: 2-Fluorobiphenyl	90.0	29.6 - 130		%Rec	1	4/13/2022 8:08:00 AM
Surr: Terphenyl-d14 (surr)	109	38 - 145		%Rec	1	4/13/2022 8:08:00 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	41.4	4.70		mg/Kg-dry	1	4/7/2022 11:18:14 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	4/7/2022 11:18:14 PM
Surr: 4-Bromofluorobenzene	103	65 - 135		%Rec	1	4/7/2022 11:18:14 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	1.42	0.0188		mg/Kg-dry	1	4/7/2022 11:18:14 PM
Toluene	0.418	0.0282		mg/Kg-dry	1	4/7/2022 11:18:14 PM
Ethylbenzene	1.03	0.0235		mg/Kg-dry	1	4/7/2022 11:18:14 PM
m,p-Xylene	2.99	0.0470		mg/Kg-dry	1	4/7/2022 11:18:14 PM
o-Xylene	0.492	0.0235		mg/Kg-dry	1	4/7/2022 11:18:14 PM
Surr: Dibromofluoromethane	94.5	80 - 120		%Rec	1	4/7/2022 11:18:14 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	4/7/2022 11:18:14 PM
Surr: 1-Bromo-4-fluorobenzene	99.3	80 - 120		%Rec	1	4/7/2022 11:18:14 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	17.0	0.500		wt%	1	4/11/2022 10:57:50 AM
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**Client:** GeoEngineers  
**Project:** 701 South Jackson  
**Lab ID:** 2204073-018  
**Client Sample ID:** GEI-11-35.0

**Collection Date:** 4/5/2022 9:50:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	20.1		µg/Kg-dry	1	4/13/2022 8:36:18 AM
2-Methylnaphthalene	ND	20.1		µg/Kg-dry	1	4/13/2022 8:36:18 AM
1-Methylnaphthalene	ND	20.1		µg/Kg-dry	1	4/13/2022 8:36:18 AM
Surr: 2-Fluorobiphenyl	94.5	29.6 - 130		%Rec	1	4/13/2022 8:36:18 AM
Surr: Terphenyl-d14 (surr)	118	38 - 145		%Rec	1	4/13/2022 8:36:18 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36034 Analyst: TN

Gasoline	ND	5.88		mg/Kg-dry	1	4/7/2022 10:46:31 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	4/7/2022 10:46:31 PM
Surr: 4-Bromofluorobenzene	99.3	65 - 135		%Rec	1	4/7/2022 10:46:31 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36034 Analyst: TN

Benzene	ND	0.0235		mg/Kg-dry	1	4/7/2022 10:46:31 PM
Toluene	ND	0.0353		mg/Kg-dry	1	4/7/2022 10:46:31 PM
Ethylbenzene	ND	0.0294		mg/Kg-dry	1	4/7/2022 10:46:31 PM
m,p-Xylene	ND	0.0588		mg/Kg-dry	1	4/7/2022 10:46:31 PM
o-Xylene	ND	0.0294		mg/Kg-dry	1	4/7/2022 10:46:31 PM
Surr: Dibromofluoromethane	97.7	80 - 120		%Rec	1	4/7/2022 10:46:31 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	4/7/2022 10:46:31 PM
Surr: 1-Bromo-4-fluorobenzene	96.1	80 - 120		%Rec	1	4/7/2022 10:46:31 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	3.11	0.500		wt%	1	4/11/2022 10:57:50 AM
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Work Order: 2204073  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>MB-36062</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>36062</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533082</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Surr: 2-Fluorobiphenyl	1,070		1,000		107	29.6	130				
Surr: Terphenyl-d14 (surr)	1,280		1,000		128	38	145				

Sample ID: <b>LCS-36062</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>36062</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533083</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,060	20.0	2,000	0	103	60.2	119				
2-Methylnaphthalene	1,960	20.0	2,000	0	98.0	60.4	121				
1-Methylnaphthalene	1,930	20.0	2,000	0	96.3	62	119				
Surr: 2-Fluorobiphenyl	1,150		1,000		115	29.6	130				
Surr: Terphenyl-d14 (surr)	1,280		1,000		128	38	145				

Sample ID: <b>2204108-021AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36062</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533085</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,690	22.4	2,241	0	75.5	30.2	123				
2-Methylnaphthalene	1,580	22.4	2,241	0	70.5	40.9	115				
1-Methylnaphthalene	1,550	22.4	2,241	0	69.3	35.6	121				
Surr: 2-Fluorobiphenyl	935		1,120		83.4	29.6	130				
Surr: Terphenyl-d14 (surr)	1,040		1,120		93.3	38	145				

**Work Order:** 2204073  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>2204108-021AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/Kg-dry</b>		Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>						
Client ID: <b>BATCH</b>	Batch ID: <b>36062</b>			Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533086</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,450	22.1	2,206	0	65.8	30.2	123	1,692	15.3	30	
2-Methylnaphthalene	1,340	22.1	2,206	0	60.9	40.9	115	1,581	16.2	30	
1-Methylnaphthalene	1,320	22.1	2,206	0	59.9	35.6	121	1,553	16.1	30	
Surr: 2-Fluorobiphenyl	754		1,103		68.3	29.6	130		0		
Surr: Terphenyl-d14 (surr)	856		1,103		77.6	38	145		0		

**Work Order:** 2204073  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>LCS-36034</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>				Prep Date: <b>4/7/2022</b>	RunNo: <b>74627</b>				
Client ID: <b>LCSS</b>	Batch ID: <b>36034</b>					Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531060</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	23.0	5.00	25.00	0	92.2	65	135				
Surr: Toluene-d8	1.25		1.250		100	65	135				
Surr: 4-Bromofluorobenzene	1.29		1.250		103	65	135				

Sample ID: <b>MB-36034</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>				Prep Date: <b>4/7/2022</b>	RunNo: <b>74627</b>				
Client ID: <b>MBLKS</b>	Batch ID: <b>36034</b>					Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531061</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.26		1.250		101	65	135				

Sample ID: <b>2204073-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>4/7/2022</b>	RunNo: <b>74627</b>				
Client ID: <b>GEI-8-12.5</b>	Batch ID: <b>36034</b>					Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531064</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	9.14						0		30	
Surr: Toluene-d8	2.32		2.284		102	65	135		0		
Surr: 4-Bromofluorobenzene	2.29		2.284		100	65	135		0		

Sample ID: <b>2204073-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>4/7/2022</b>	RunNo: <b>74627</b>				
Client ID: <b>GEI-8-17.0</b>	Batch ID: <b>36034</b>					Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531066</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.74						0		30	
Surr: Toluene-d8	1.45		1.435		101	65	135		0		
Surr: 4-Bromofluorobenzene	1.43		1.435		99.8	65	135		0		



**Work Order:** 2204073  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>2204125-001BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/7/2022</b>	RunNo: <b>74627</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36034</b>	Analysis Date: <b>4/8/2022</b>	SeqNo: <b>1531073</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	31.2	5.65	28.23	0	110	65	135				
Surr: Toluene-d8	1.46		1.412		103	65	135				
Surr: 4-Bromofluorobenzene	1.47		1.412		104	65	135				

Work Order: 2204073  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>LCS-36034</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/7/2022</b>	RunNo: <b>74626</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>36034</b>		Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531057</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.04	0.0200	1.000	0	104	80	120				
Toluene	1.02	0.0300	1.000	0	102	80	120				
Ethylbenzene	1.16	0.0250	1.000	0	116	80	120				
m,p-Xylene	2.18	0.0500	2.000	0	109	80	120				
o-Xylene	1.02	0.0250	1.000	0	102	80	120				
Surr: Dibromofluoromethane	1.36		1.250		109	80	120				
Surr: Toluene-d8	1.23		1.250		98.6	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	80	120				

Sample ID: <b>MB-36034</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/7/2022</b>	RunNo: <b>74626</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>36034</b>		Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531036</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0300									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.23		1.250		98.1	80	120				
Surr: Toluene-d8	1.25		1.250		99.8	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.3	80	120				

Sample ID: <b>2204073-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/7/2022</b>	RunNo: <b>74626</b>							
Client ID: <b>GEI-8-12.5</b>	Batch ID: <b>36034</b>		Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531039</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0365						0		30	
Toluene	ND	0.0548						0		30	
Ethylbenzene	ND	0.0457						0		30	

**Work Order:** 2204073  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2204073-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/7/2022</b>	RunNo: <b>74626</b>					
Client ID: <b>GEI-8-12.5</b>	Batch ID: <b>36034</b>				Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531039</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	0.0914						0		30	
o-Xylene	ND	0.0457						0		30	
Surr: Dibromofluoromethane	2.18		2.284		95.4	80	120		0		
Surr: Toluene-d8	2.29		2.284		100	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	2.21		2.284		96.9	80	120		0		

Sample ID: <b>2204073-003BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/7/2022</b>	RunNo: <b>74626</b>					
Client ID: <b>GEI-8-17.0</b>	Batch ID: <b>36034</b>				Analysis Date: <b>4/7/2022</b>	SeqNo: <b>1531041</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0230						0		30	
Toluene	ND	0.0345						0		30	
Ethylbenzene	ND	0.0287						0		30	
m,p-Xylene	ND	0.0574						0		30	
o-Xylene	ND	0.0287						0		30	
Surr: Dibromofluoromethane	1.27		1.435		88.7	80	120		0		
Surr: Toluene-d8	1.42		1.435		99.0	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.39		1.435		96.6	80	120		0		

Sample ID: <b>2204116-007BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>			Prep Date: <b>4/7/2022</b>	RunNo: <b>74626</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36034</b>				Analysis Date: <b>4/8/2022</b>	SeqNo: <b>1531051</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.40	0.0246	1.230	0	113	76.9	128				
Toluene	1.35	0.0369	1.230	0	110	79.5	127				
Ethylbenzene	1.48	0.0307	1.230	0	121	81.6	130				
m,p-Xylene	2.76	0.0615	2.460	0	112	80.6	128				
o-Xylene	1.32	0.0307	1.230	0	107	80.1	126				
Surr: Dibromofluoromethane	1.67		1.537		109	80	120				

**Work Order:** 2204073  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2204116-007BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/7/2022</b>	RunNo: <b>74626</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36034</b>		Analysis Date: <b>4/8/2022</b>	SeqNo: <b>1531051</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	1.56		1.537		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.58		1.537		103	80	120				

Client Name: **GEI**  
 Logged by: **Brianna Barnes**

Work Order Number: **2204073**  
 Date Received: **4/5/2022 2:59:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes  No  Not Present   
 6. Was an attempt made to cool the samples? Yes  No  NA   
 7. Were all items received at a temperature of >2°C to 6°C \* Yes  No  NA   
 8. Sample(s) in proper container(s)? Yes  No   
 9. Sufficient sample volume for indicated test(s)? Yes  No   
 10. Are samples properly preserved? Yes  No   
 11. Was preservative added to bottles? Yes  No  NA   
 12. Is there headspace in the VOA vials? Yes  No  NA   
 13. Did all samples containers arrive in good condition(unbroken)? Yes  No   
 14. Does paperwork match bottle labels? Yes  No   
 15. Are matrices correctly identified on Chain of Custody? Yes  No   
 16. Is it clear what analyses were requested? Yes  No   
 17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Sample	0.8

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 4/5/2022 Page: 1 of 2

Laboratory Project No (Internal): **2204673**  
Special Remarks: **HOLD SAMPLES PM WILL REQUEST ANALYTICAL**

Client: **GEOENGINEERS INC.**

Project Name: **101 SOUTH JACKSON**

Project No: **24504-001-01**

Address: **SEATTLE WA**

Collected by: **NATHAN SORAN**

City, State, Zip: **SEATTLE WA**

Location: **SEATTLE WA**

Telephone:

Report To (PM): **ROBERT TRAVIN**

Fax:

PM Email:

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCS (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)**	EDB (8011)	Comments
1 GEL-8-7.5	4/4/22	1045	Soil	3													
2 GEL-8-12.5		1055		3													
3 GEL-8-17.0		1105		3													
4 GEL-8-22.5		1115		3													
5 GEL-9-7.5		0940		3													
6 GEL-9-12.5		1005		3													
7 GEL-9-17.5		1015		3													
8 GEL-9-22.5		1020		3													
9 GEL-10-7.5		1035		3													
10 GEL-10-12.5		1045		3													

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-around Time:  Standard  Next Day  3 Day  Same Day  2 Day (specify) \_\_\_\_\_

Relinquished (Signature) *Nathan Soran* Print Name **Nathan Soran** Date/Time **4/5/22 14:08**

Relinquished (Signature) *Robert Travin* Print Name **Robert Travin** Date/Time **4/5/22 14:59**













3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 4.5.2022 Page: 2 of: 2

Laboratory Project No (Internal): 2204673

Project Name: 701 SOUTH JACKSON

Special Remarks:  
HOLD SAMPLES PM WILL  
REQUEST ANALYTICAL

Project No: 24504-001-01

Collected by: NATHAN SOLOMON

Location: SEATTLE WA.

Report To (PM): ROBERT TRAHAN

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

PM Email:

Client: GEOENGINEERS INC.

Address:

City, State, Zip: SEATTLE WA.

Telephone:

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	Analytical Parameters													Comments		
					VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 - SIM)	Metals** (EPA 8082 / 608)	Total (T) (EPA 6020 / 200.8)	Anions (IC)***	EDB (9011)	HOLD * SEE ABOVE			
1 GEI-10-17.5	4.4.22	1355	SOIL	3	X	X												X	X	
2 GEI-10-22.5	↓	1405		3														X		
3 GEI-11-7.5	4.5.22	0900		3														X		
4 GEI-11-12.5		0915		3														X		
5 GEI-11-15.0		0920		3	X	X												X	X	
6 GEI-11-17.5		0925		3														X		
7 GEI-11-22.5		0935		3														X		
8 GEI-11-35.0		0950		3	X	X												X	X	
9 GEI-11-40.0	↓	1005	↓	3														X		
10																				

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

- Standard
- Next Day
- 3 Day
- Same Day
- 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_

Received (Signature) *Elisabeth Samoy* Print Name *Elisabeth Samoy* Date/Time *4/5/22 14:59*

Relinquished (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_

Received (Signature) \_\_\_\_\_ Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**GeoEngineers**

Robert Trahan  
2101 4th Ave, Suite 950  
Seattle, WA 98121

**RE: 701 South Jackson**  
**Work Order Number: 2204105**

April 13, 2022

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 6 sample(s) on 4/6/2022 for the analyses presented in the following report.

***Gasoline by NWTPH-Gx***  
***Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)***  
***Sample Moisture (Percent Moisture)***  
***Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing*  
*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*  
*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original



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**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson  
**Work Order:** 2204105

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**Work Order Sample Summary**

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2204105-001	GEI-12-7.5	04/06/2022 9:15 AM	04/06/2022 1:04 PM
2204105-002	GEI-12-15.0	04/06/2022 9:20 AM	04/06/2022 1:04 PM
2204105-003	GEI-12-17.5	04/06/2022 9:30 AM	04/06/2022 1:04 PM
2204105-004	GEI-12-22.5	04/06/2022 9:40 AM	04/06/2022 1:04 PM
2204105-005	GEI-12-35.0	04/06/2022 9:55 AM	04/06/2022 1:04 PM
2204105-006	GEI-12-40.0	04/06/2022 10:00 AM	04/06/2022 1:04 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

---

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





**Client:** GeoEngineers  
**Project:** 701 South Jackson  
**Lab ID:** 2204105-002  
**Client Sample ID:** GEI-12-15.0

**Collection Date:** 4/6/2022 9:20:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	855	22.3		µg/Kg-dry	1	4/13/2022 9:04:25 AM
2-Methylnaphthalene	2,390	22.3		µg/Kg-dry	1	4/13/2022 9:04:25 AM
1-Methylnaphthalene	1,130	22.3		µg/Kg-dry	1	4/13/2022 9:04:25 AM
Surr: 2-Fluorobiphenyl	103	29.6 - 130		%Rec	1	4/13/2022 9:04:25 AM
Surr: Terphenyl-d14 (surr)	118	38 - 145		%Rec	1	4/13/2022 9:04:25 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36064 Analyst: MVB

Gasoline	3,220	672	D	mg/Kg-dry	100	4/12/2022 9:22:12 AM
Surr: Toluene-d8	103	65 - 135	D	%Rec	100	4/12/2022 9:22:12 AM
Surr: 4-Bromofluorobenzene	103	65 - 135	D	%Rec	100	4/12/2022 9:22:12 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36064 Analyst: MVB

Benzene	0.739	0.269	D	mg/Kg-dry	10	4/11/2022 8:42:28 PM
Toluene	ND	0.403	D	mg/Kg-dry	10	4/11/2022 8:42:28 PM
Ethylbenzene	13.0	0.336	D	mg/Kg-dry	10	4/11/2022 8:42:28 PM
m,p-Xylene	2.39	0.672	D	mg/Kg-dry	10	4/11/2022 8:42:28 PM
o-Xylene	ND	0.336	D	mg/Kg-dry	10	4/11/2022 8:42:28 PM
Surr: Dibromofluoromethane	92.1	80 - 120	D	%Rec	10	4/11/2022 8:42:28 PM
Surr: Toluene-d8	104	80 - 120	D	%Rec	10	4/11/2022 8:42:28 PM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120	D	%Rec	10	4/11/2022 8:42:28 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	16.5	0.500		wt%	1	4/11/2022 10:57:50 AM
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# Analytical Report

Work Order: 2204105  
Date Reported: 4/13/2022

**Client:** GeoEngineers  
**Project:** 701 South Jackson  
**Lab ID:** 2204105-006  
**Client Sample ID:** GEI-12-40.0

**Collection Date:** 4/6/2022 10:00:00 AM  
**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36062 Analyst: OK

Naphthalene	ND	18.9		µg/Kg-dry	1	4/13/2022 9:32:34 AM
2-Methylnaphthalene	ND	18.9		µg/Kg-dry	1	4/13/2022 9:32:34 AM
1-Methylnaphthalene	ND	18.9		µg/Kg-dry	1	4/13/2022 9:32:34 AM
Surr: 2-Fluorobiphenyl	96.9	29.6 - 130		%Rec	1	4/13/2022 9:32:34 AM
Surr: Terphenyl-d14 (surr)	101	38 - 145		%Rec	1	4/13/2022 9:32:34 AM

**Gasoline by NWTPH-Gx**

Batch ID: 36064 Analyst: MVB

Gasoline	ND	6.05		mg/Kg-dry	1	4/11/2022 4:59:44 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	4/11/2022 4:59:44 PM
Surr: 4-Bromofluorobenzene	99.1	65 - 135		%Rec	1	4/11/2022 4:59:44 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36064 Analyst: MVB

Benzene	ND	0.0242		mg/Kg-dry	1	4/11/2022 4:59:44 PM
Toluene	ND	0.0363		mg/Kg-dry	1	4/11/2022 4:59:44 PM
Ethylbenzene	ND	0.0303		mg/Kg-dry	1	4/11/2022 4:59:44 PM
m,p-Xylene	ND	0.0605		mg/Kg-dry	1	4/11/2022 4:59:44 PM
o-Xylene	ND	0.0303		mg/Kg-dry	1	4/11/2022 4:59:44 PM
Surr: Dibromofluoromethane	75.8	80 - 120	S	%Rec	1	4/11/2022 4:59:44 PM
Surr: Toluene-d8	98.6	80 - 120		%Rec	1	4/11/2022 4:59:44 PM
Surr: 1-Bromo-4-fluorobenzene	95.9	80 - 120		%Rec	1	4/11/2022 4:59:44 PM

**NOTES:**

S - Outlying surrogate recovery(ies) observed.

**Sample Moisture (Percent Moisture)**

Batch ID: R74648 Analyst: ALB

Percent Moisture	2.66	0.500		wt%	1	4/11/2022 10:57:50 AM
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**Work Order:** 2204105  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>MB-36062</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>36062</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533082</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Surr: 2-Fluorobiphenyl	1,070		1,000		107	29.6	130				
Surr: Terphenyl-d14 (surr)	1,280		1,000		128	38	145				

Sample ID: <b>LCS-36062</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>36062</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533083</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,060	20.0	2,000	0	103	60.2	119				
2-Methylnaphthalene	1,960	20.0	2,000	0	98.0	60.4	121				
1-Methylnaphthalene	1,930	20.0	2,000	0	96.3	62	119				
Surr: 2-Fluorobiphenyl	1,150		1,000		115	29.6	130				
Surr: Terphenyl-d14 (surr)	1,280		1,000		128	38	145				

Sample ID: <b>2204108-021AMS</b>	SampType: <b>MS</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36062</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533085</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,690	22.4	2,241	0	75.5	30.2	123				
2-Methylnaphthalene	1,580	22.4	2,241	0	70.5	40.9	115				
1-Methylnaphthalene	1,550	22.4	2,241	0	69.3	35.6	121				
Surr: 2-Fluorobiphenyl	935		1,120		83.4	29.6	130				
Surr: Terphenyl-d14 (surr)	1,040		1,120		93.3	38	145				



**Work Order:** 2204105  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>2204108-021AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/Kg-dry</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74713</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>36062</b>					Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533086</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,450	22.1	2,206	0	65.8	30.2	123	1,692	15.3	30	
2-Methylnaphthalene	1,340	22.1	2,206	0	60.9	40.9	115	1,581	16.2	30	
1-Methylnaphthalene	1,320	22.1	2,206	0	59.9	35.6	121	1,553	16.1	30	
Surr: 2-Fluorobiphenyl	754		1,103		68.3	29.6	130		0		
Surr: Terphenyl-d14 (surr)	856		1,103		77.6	38	145		0		

**Work Order:** 2204105  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>LCS-36064</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74687</b>				
Client ID: <b>LCSS</b>	Batch ID: <b>36064</b>					Analysis Date: <b>4/11/2022</b>	SeqNo: <b>1532471</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	25.7	5.00	25.00	0	103	65	135				
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		101	65	135				

Sample ID: <b>MB-36064</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74687</b>				
Client ID: <b>MBLKS</b>	Batch ID: <b>36064</b>					Analysis Date: <b>4/11/2022</b>	SeqNo: <b>1532472</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.25		1.250		100	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.4	65	135				

Sample ID: <b>2204105-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74687</b>				
Client ID: <b>GEI-12-15.0</b>	Batch ID: <b>36064</b>					Analysis Date: <b>4/11/2022</b>	SeqNo: <b>1532459</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	3,780	67.2						3,766	0.313	30	DE
Surr: Toluene-d8	17.3		16.80		103	65	135		0		D
Surr: 4-Bromofluorobenzene	18.0		16.80		107	65	135		0		D

Sample ID: <b>2204144-003BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74687</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>36064</b>					Analysis Date: <b>4/11/2022</b>	SeqNo: <b>1532464</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	31.5	6.59	32.95	0	95.5	65	135				
Surr: Toluene-d8	1.69		1.648		103	65	135				
Surr: 4-Bromofluorobenzene	1.71		1.648		104	65	135				

Work Order: 2204105  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>LCS-36064</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74684</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>36064</b>		Analysis Date: <b>4/11/2022</b>	SeqNo: <b>1532364</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.09	0.0200	1.000	0	109	80	120				
Toluene	1.07	0.0300	1.000	0	107	80	120				
Ethylbenzene	1.19	0.0250	1.000	0	119	80	120				
m,p-Xylene	2.24	0.0500	2.000	0	112	80	120				
o-Xylene	1.07	0.0250	1.000	0	107	80	120				
Surr: Dibromofluoromethane	1.36		1.250		109	80	120				
Surr: Toluene-d8	1.25		1.250		100	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.250		104	80	120				

Sample ID: <b>MB-36064</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74684</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>36064</b>		Analysis Date: <b>4/11/2022</b>	SeqNo: <b>1532363</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0300									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.10		1.250		88.1	80	120				
Surr: Toluene-d8	1.24		1.250		99.0	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		96.1	80	120				

Sample ID: <b>2204105-002BDUP</b>	SampType: <b>DUP</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74684</b>							
Client ID: <b>GEI-12-15.0</b>	Batch ID: <b>36064</b>		Analysis Date: <b>4/11/2022</b>	SeqNo: <b>1532351</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.761	0.269						0.7393	2.94	30	D
Toluene	ND	0.403						0		30	D
Ethylbenzene	13.2	0.336						13.02	1.67	30	D

**Work Order:** 2204105  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2204105-002BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>4/11/2022</b>		RunNo: <b>74684</b>			
Client ID: <b>GEI-12-15.0</b>		Batch ID: <b>36064</b>				Analysis Date: <b>4/11/2022</b>		SeqNo: <b>1532351</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	2.45	0.672						2.393	2.21	30	D
o-Xylene	ND	0.336						0		30	D
Surr: Dibromofluoromethane	16.1		16.80		95.6	80	120		0		D
Surr: Toluene-d8	17.5		16.80		104	80	120		0		D
Surr: 1-Bromo-4-fluorobenzene	17.1		16.80		102	80	120		0		D

Sample ID: <b>2204144-003BMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>4/11/2022</b>		RunNo: <b>74684</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>36064</b>				Analysis Date: <b>4/11/2022</b>		SeqNo: <b>1532359</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.31	0.0264	1.318	0	99.3	76.9	128				
Toluene	1.29	0.0395	1.318	0	98.1	79.5	127				
Ethylbenzene	1.45	0.0330	1.318	0	110	81.6	130				
m,p-Xylene	2.70	0.0659	2.636	0	103	80.6	128				
o-Xylene	1.31	0.0330	1.318	0	99.2	80.1	126				
Surr: Dibromofluoromethane	1.75		1.648		106	80	120				
Surr: Toluene-d8	1.62		1.648		98.2	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.69		1.648		103	80	120				

Client Name: GEI	Work Order Number: 2204105
Logged by: Brianna Barnes	Date Received: 4/6/2022 1:04:00 PM

**Chain of Custody**

1. Is Chain of Custody complete?      Yes       No       Not Present
2. How was the sample delivered?      Client

**Log In**

3. Coolers are present?      Yes       No       NA
4. Shipping container/cooler in good condition?      Yes       No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact)      Yes       No       Not Present
6. Was an attempt made to cool the samples?      Yes       No       NA
7. Were all items received at a temperature of >2°C to 6°C \*      Yes       No       NA
8. Sample(s) in proper container(s)?      Yes       No
9. Sufficient sample volume for indicated test(s)?      Yes       No
10. Are samples properly preserved?      Yes       No
11. Was preservative added to bottles?      Yes       No       NA
12. Is there headspace in the VOA vials?      Yes       No       NA
13. Did all samples containers arrive in good condition(unbroken)?      Yes       No
14. Does paperwork match bottle labels?      Yes       No
15. Are matrices correctly identified on Chain of Custody?      Yes       No
16. Is it clear what analyses were requested?      Yes       No
17. Were all holding times able to be met?      Yes       No

**Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

**Item Information**

Item #	Temp °C
Sample	4.2

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 4.6.2022

Page: 1 of 1

Project Name: 701 SOUTH JACKSON

Project No: 24504 - 001 - 01

Laboratory Project No (Internal): 2204105

Collected by: NATHAN SACRONI

Location: SEATTLE, WA.

Special Remarks:  
PM WILL CONTACT W/ ANALYTICAL TO PSD

Report To (PM): ROBERT TRAYN

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

PM Email:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (GX)	Diesel/Heavy Oil Range Organics (HX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8270 - SIM)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)**	EDB (8011)	Comments
1 GE1-12-7.5	4.6.22	0915	Soil	3													
2 GE1-12-15.0		0920		3													
3 GE1-12-17.5		0930		3													
4 GE1-12-22.5		0940		3													
5 GE1-12-35.0		0955		3													
6 GE1-12-40.0		10:00		3													
7 GE1-12-APC				3													
8																	
9																	
10																	

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
 Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti V Zn  
 Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) [Signature] Print Name NATHAN SACRONI Date/Time 4.6.22 / 12:05

Received (Signature) [Signature] Print Name Erickson Saucy Date/Time 4/6/22 13:04

Relinquished (Signature) [Signature] Print Name \_\_\_\_\_ Date/Time \_\_\_\_\_

Turn-around Time:  
 Standard  Next Day  
 3 Day  Same Day  
 2 Day (specify) \_\_\_\_\_





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Chain of Custody Record & Laboratory Services Agreement

Date: 4.6.2022 Page: 1 of 1

Laboratory Project No (internal): 2204105

Project Name: 701 South Jackson

Special Remarks:  
PM WILL CONTACT W/ ANalytical TO RUN

Project No: 24504-001-01

Edits per R.T. 4/7/2022 -BB

Collected by: NATHAN SALOMON

Location: SEATTLE, WA.

Sample Disposal:  Return to client  Disposal by lab (after 30 days)

Report To (PM): ROBERT TRAHAN

PM Email:

Client: GEOENGINEERS INC.

Address:

City, State, Zip: SEATTLE WA

Telephone:

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	Analytical Methods													Comments	
					VOCS (EPA 8260 / 824)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)	Dissolved (D)	Anions (IC)***	EDB (8011)		HOLD *SEE ABOVE
1 GEI-12-7.5	4.6.22	0915	Soil	3														X	
2 GEI-12-15.0		0920		3	X	X												X	
3 GEI-12-17.5		0930		3														X	
4 GEI-12-22.5		0940		3														X	
5 GEI-12-35.0		0955		3														X	
6 GEI-12-40.0		10:00		3	X	X												X	
7 GEI-12- <sup>NPC</sup>				3 <sup>NPC</sup>													X <sup>NPC</sup>		
8																			
9																			
10																			

*Handwritten red text:* No. 24504-001-01

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

- Standard  Next Day
- 3 Day  Same Day
- 2 Day \_\_\_\_\_ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) \_\_\_\_\_  
 Print Name: NATHAN SALOMON  
 Date/Time: 4.6.22 / 1207

Received (Signature) \_\_\_\_\_  
 Print Name: Erisabehn Samoy  
 Date/Time: 4/6/22 13:04

Relinquished (Signature) \_\_\_\_\_

Received (Signature) \_\_\_\_\_



**GeoEngineers**

Robert Trahan  
2101 4th Ave, Suite 950  
Seattle, WA 98121

**RE: 701 South Jackson**  
**Work Order Number: 2204167**

April 18, 2022

**Attention Robert Trahan:**

Fremont Analytical, Inc. received 3 sample(s) on 4/11/2022 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Dissolved Mercury by EPA Method 245.1***  
***Dissolved Metals by EPA Method 200.8***  
***Gasoline by NWTPH-Gx***  
***Mercury by EPA Method 245.1***  
***Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)***  
***Total Metals by EPA Method 200.8***  
***Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing*  
*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*  
*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original



Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)



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**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson  
**Work Order:** 2204167

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**Work Order Sample Summary**

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2204167-001	GEI-11-W-041122	04/11/2022 1:10 PM	04/11/2022 4:21 PM
2204167-002	GEI-12-W-041122	04/11/2022 12:00 PM	04/11/2022 4:21 PM
2204167-003	Trip Blank		04/11/2022 4:21 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

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### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** GeoEngineers

**Collection Date:** 4/11/2022 1:10:00 PM

**Project:** 701 South Jackson

**Lab ID:** 2204167-001

**Matrix:** Water

**Client Sample ID:** GEI-11-W-041122

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 36079 Analyst: MM

Diesel (Fuel Oil)	ND	117		µg/L	1	4/13/2022 4:04:37 PM
Heavy Oil	ND	117		µg/L	1	4/13/2022 4:04:37 PM
Total Petroleum Hydrocarbons	ND	233		µg/L	1	4/13/2022 4:04:37 PM
Surr: 2-Fluorobiphenyl	80.9	50 - 150		%Rec	1	4/13/2022 4:04:37 PM
Surr: o-Terphenyl	79.8	50 - 150		%Rec	1	4/13/2022 4:04:37 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36096 Analyst: OK

Naphthalene	0.759	0.0990		µg/L	1	4/14/2022 12:53:30 PM
2-Methylnaphthalene	0.259	0.0990		µg/L	1	4/14/2022 12:53:30 PM
1-Methylnaphthalene	0.156	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Acenaphthylene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Acenaphthene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Fluorene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Phenanthrene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Anthracene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Fluoranthene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Pyrene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Benz(a)anthracene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Chrysene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Benzo(b)fluoranthene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Benzo(k)fluoranthene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Benzo(a)pyrene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Indeno(1,2,3-cd)pyrene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Dibenz(a,h)anthracene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Benzo(g,h,i)perylene	ND	0.0990		µg/L	1	4/14/2022 12:53:30 PM
Surr: 2-Fluorobiphenyl	68.9	38.8 - 131		%Rec	1	4/14/2022 12:53:30 PM
Surr: Terphenyl-d14	69.7	46 - 144		%Rec	1	4/14/2022 12:53:30 PM

**Gasoline by NWTPH-Gx**

Batch ID: 36063 Analyst: MVB

Gasoline	694	50.0		µg/L	1	4/13/2022 12:33:40 AM
Surr: Toluene-d8	104	65 - 135		%Rec	1	4/13/2022 12:33:40 AM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	4/13/2022 12:33:40 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36063 Analyst: MVB

Benzene	2.06	0.440		µg/L	1	4/13/2022 12:33:40 AM
Toluene	9.86	0.750		µg/L	1	4/13/2022 12:33:40 AM



**Client:** GeoEngineers

**Collection Date:** 4/11/2022 1:10:00 PM

**Project:** 701 South Jackson

**Lab ID:** 2204167-001

**Matrix:** Water

**Client Sample ID:** GEI-11-W-041122

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36063 Analyst: MVB

Ethylbenzene	8.28	0.400		µg/L	1	4/13/2022 12:33:40 AM
m,p-Xylene	33.8	1.00		µg/L	1	4/13/2022 12:33:40 AM
o-Xylene	15.1	0.500		µg/L	1	4/13/2022 12:33:40 AM
Surr: Dibromofluoromethane	98.0	80 - 120		%Rec	1	4/13/2022 12:33:40 AM
Surr: Toluene-d8	98.5	80 - 120		%Rec	1	4/13/2022 12:33:40 AM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	4/13/2022 12:33:40 AM

**Mercury by EPA Method 245.1**

Batch ID: 36086 Analyst: CH

Mercury	ND	0.100		µg/L	1	4/14/2022 10:20:31 AM
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**Dissolved Mercury by EPA Method 245.1**

Batch ID: 36132 Analyst: CH

Mercury	ND	0.100		µg/L	1	4/18/2022 4:48:26 PM
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 36082 Analyst: EH

Arsenic	2.95	1.00		µg/L	1	4/14/2022 12:00:10 AM
Cadmium	ND	0.125		µg/L	1	4/14/2022 12:00:10 AM
Chromium	ND	0.750		µg/L	1	4/14/2022 12:00:10 AM
Lead	ND	0.500		µg/L	1	4/14/2022 12:00:10 AM

**Total Metals by EPA Method 200.8**

Batch ID: 36081 Analyst: EH

Arsenic	2.94	1.00		µg/L	1	4/14/2022 11:42:44 AM
Cadmium	ND	0.200		µg/L	1	4/13/2022 3:31:48 PM
Chromium	ND	1.00		µg/L	1	4/13/2022 3:31:48 PM
Lead	ND	0.500		µg/L	1	4/13/2022 3:31:48 PM





**Client:** GeoEngineers

**Collection Date:** 4/11/2022 12:00:00 PM

**Project:** 701 South Jackson

**Lab ID:** 2204167-002

**Matrix:** Water

**Client Sample ID:** GEI-12-W-041122

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 36079 Analyst: MM

Diesel (Fuel Oil)	ND	117		µg/L	1	4/13/2022 4:15:39 PM
Heavy Oil	ND	117		µg/L	1	4/13/2022 4:15:39 PM
Total Petroleum Hydrocarbons	ND	234		µg/L	1	4/13/2022 4:15:39 PM
Surr: 2-Fluorobiphenyl	80.2	50 - 150		%Rec	1	4/13/2022 4:15:39 PM
Surr: o-Terphenyl	86.5	50 - 150		%Rec	1	4/13/2022 4:15:39 PM

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Batch ID: 36096 Analyst: OK

Naphthalene	0.521	0.0997		µg/L	1	4/14/2022 1:22:02 PM
2-Methylnaphthalene	0.799	0.0997		µg/L	1	4/14/2022 1:22:02 PM
1-Methylnaphthalene	0.620	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Acenaphthylene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Acenaphthene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Fluorene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Phenanthrene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Anthracene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Fluoranthene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Pyrene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Benz(a)anthracene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Chrysene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Benzo(b)fluoranthene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Benzo(k)fluoranthene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Benzo(a)pyrene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Indeno(1,2,3-cd)pyrene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Dibenz(a,h)anthracene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Benzo(g,h,i)perylene	ND	0.0997		µg/L	1	4/14/2022 1:22:02 PM
Surr: 2-Fluorobiphenyl	58.5	38.8 - 131		%Rec	1	4/14/2022 1:22:02 PM
Surr: Terphenyl-d14	79.0	46 - 144		%Rec	1	4/14/2022 1:22:02 PM

**Gasoline by NWTPH-Gx**

Batch ID: 36063 Analyst: MVB

Gasoline	ND	50.0		µg/L	1	4/13/2022 1:03:49 AM
Gasoline Range Organics (C6-C12)	142	50.0		µg/L	1	4/13/2022 1:03:49 AM
Surr: Toluene-d8	100	65 - 135		%Rec	1	4/13/2022 1:03:49 AM
Surr: 4-Bromofluorobenzene	95.4	65 - 135		%Rec	1	4/13/2022 1:03:49 AM

**NOTES:**

GRO - Indicates the presence of unresolved compounds in the gasoline range.



**Client:** GeoEngineers

**Collection Date:** 4/11/2022 12:00:00 PM

**Project:** 701 South Jackson

**Lab ID:** 2204167-002

**Matrix:** Water

**Client Sample ID:** GEI-12-W-041122

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 36063

Analyst: MVB

Benzene	ND	0.440		µg/L	1	4/13/2022 1:03:49 AM
Toluene	ND	0.750		µg/L	1	4/13/2022 1:03:49 AM
Ethylbenzene	1.06	0.400		µg/L	1	4/13/2022 1:03:49 AM
m,p-Xylene	1.20	1.00		µg/L	1	4/13/2022 1:03:49 AM
o-Xylene	ND	0.500		µg/L	1	4/13/2022 1:03:49 AM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	4/13/2022 1:03:49 AM
Surr: Toluene-d8	101	80 - 120		%Rec	1	4/13/2022 1:03:49 AM
Surr: 1-Bromo-4-fluorobenzene	93.6	80 - 120		%Rec	1	4/13/2022 1:03:49 AM

**Mercury by EPA Method 245.1**

Batch ID: 36086

Analyst: CH

Mercury	ND	0.100		µg/L	1	4/14/2022 10:22:12 AM
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**Dissolved Mercury by EPA Method 245.1**

Batch ID: 36132

Analyst: CH

Mercury	ND	0.100		µg/L	1	4/18/2022 4:50:07 PM
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**Dissolved Metals by EPA Method 200.8**

Batch ID: 36082

Analyst: EH

Arsenic	2.91	1.00		µg/L	1	4/14/2022 12:05:44 AM
Cadmium	ND	0.125		µg/L	1	4/14/2022 12:05:44 AM
Chromium	0.752	0.750		µg/L	1	4/14/2022 12:05:44 AM
Lead	ND	0.500		µg/L	1	4/14/2022 12:05:44 AM

**Total Metals by EPA Method 200.8**

Batch ID: 36081

Analyst: EH

Arsenic	2.85	1.00		µg/L	1	4/14/2022 11:45:28 AM
Cadmium	ND	0.200		µg/L	1	4/13/2022 3:34:32 PM
Chromium	1.10	1.00		µg/L	1	4/13/2022 3:34:32 PM
Lead	ND	0.500		µg/L	1	4/13/2022 3:34:32 PM

Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID: <b>MB-36083FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74736</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>36082</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533576</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.00									
Cadmium	ND	0.125									
Chromium	ND	0.750									
Lead	ND	0.500									

Sample ID: <b>MB-36082</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74736</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>36082</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533577</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.00									
Cadmium	ND	0.125									
Chromium	ND	0.750									
Lead	ND	0.500									

Sample ID: <b>LCS-36082</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74736</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>36082</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533578</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	478	1.00	500.0	0	95.6	85	115				
Cadmium	22.8	0.125	25.00	0	91.0	85	115				
Chromium	494	0.750	500.0	0	98.8	85	115				
Lead	250	0.500	250.0	0	99.9	85	115				

Sample ID: <b>2204132-001CDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74736</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36082</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533580</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.00						0		30	
Cadmium	ND	0.125						0		30	

Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Dissolved Metals by EPA Method 200.8**

Sample ID: <b>2204132-001CDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74736</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36082</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533580</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium	ND	0.750						0		30	
Lead	ND	0.500						0		30	

Sample ID: <b>2204132-001CMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74736</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36082</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533581</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	489	1.00	500.0	0	97.9	70	130				
Cadmium	23.6	0.125	25.00	0	94.4	70	130				
Chromium	488	0.750	500.0	0	97.7	70	130				
Lead	243	0.500	250.0	0	97.1	70	130				

Sample ID: <b>2204185-003CMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74736</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36082</b>				Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1533596</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	500	1.00	500.0	1.004	99.8	70	130				
Cadmium	24.3	0.125	25.00	0	97.2	70	130				
Chromium	478	0.750	500.0	0	95.7	70	130				
Lead	239	0.500	250.0	0	95.6	70	130				

Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID: <b>2204172-001AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74721</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36081</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533265</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	98.8	1.00	100.0	0.7811	98.0	70	130				
Cadmium	5.01	0.200	5.000	0.01490	99.8	70	130				
Chromium	98.0	1.00	100.0	0.2558	97.7	70	130				
Lead	45.1	0.500	50.00	0.1962	89.8	70	130				

Sample ID: <b>MB-36081</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74721</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>36081</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533282</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	1.00									
Cadmium	ND	0.200									
Chromium	ND	1.00									
Lead	ND	0.500									

Sample ID: <b>LCS-36081</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74721</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>36081</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533283</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	103	1.00	100.0	0	103	85	115				
Cadmium	4.95	0.200	5.000	0	99.0	85	115				
Chromium	96.3	1.00	100.0	0	96.3	85	115				
Lead	49.0	0.500	50.00	0	98.1	85	115				

Sample ID: <b>2204172-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74721</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36081</b>		Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533285</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	1.00						0		30	
Cadmium	ND	0.200						0		30	

**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID: <b>2204172-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74721</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36081</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533285</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium	ND	1.00						0		30	
Lead	ND	0.500						0		30	

Sample ID: <b>2204175-005AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74721</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36081</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533375</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	85.0	1.00	100.0	0.8354	84.2	70	130				
Cadmium	4.97	0.200	5.000	0.2590	94.2	70	130				
Chromium	87.6	1.00	100.0	7.082	80.5	70	130				
Lead	61.7	0.500	50.00	16.78	89.7	70	130				



**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Mercury by EPA Method 245.1**

Sample ID: <b>MB-36086</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74723</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>36086</b>		Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1533661</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.100

Sample ID: <b>LCS-36086</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74723</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>36086</b>		Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1533662</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 2.54 0.100 2.500 0 102 85 115

Sample ID: <b>2204180-004ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74723</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36086</b>		Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1533664</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.100 0 20

Sample ID: <b>2204180-004AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74723</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36086</b>		Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1533665</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 2.92 0.100 2.500 0 117 70 130

Sample ID: <b>2204180-004AMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74723</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36086</b>		Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1533666</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 2.73 0.100 2.500 0 109 70 130 2.920 6.73 20

Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Dissolved Mercury by EPA Method 245.1**

Sample ID: <b>MB-36132</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2022</b>	RunNo: <b>74819</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>36132</b>	Analysis Date: <b>4/18/2022</b>	SeqNo: <b>1535280</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.100

Sample ID: <b>LCS-36132</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2022</b>	RunNo: <b>74819</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>36132</b>	Analysis Date: <b>4/18/2022</b>	SeqNo: <b>1535281</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 2.31 0.100 2.500 0 92.4 85 115

Sample ID: <b>2204167-002EDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2022</b>	RunNo: <b>74819</b>							
Client ID: <b>GEI-12-W-041122</b>	Batch ID: <b>36132</b>	Analysis Date: <b>4/18/2022</b>	SeqNo: <b>1535284</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.100 0 20

Sample ID: <b>2204167-002EMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2022</b>	RunNo: <b>74819</b>							
Client ID: <b>GEI-12-W-041122</b>	Batch ID: <b>36132</b>	Analysis Date: <b>4/18/2022</b>	SeqNo: <b>1535285</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 2.58 0.100 2.500 0 103 70 130

Sample ID: <b>2204167-002EMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2022</b>	RunNo: <b>74819</b>							
Client ID: <b>GEI-12-W-041122</b>	Batch ID: <b>36132</b>	Analysis Date: <b>4/18/2022</b>	SeqNo: <b>1535286</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 2.42 0.100 2.500 0 96.8 70 130 2.580 6.40 20



Date: 4/18/2022

**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Dissolved Mercury by EPA Method 245.1**

Sample ID: <b>MB-36136-FB</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/18/2022</b>	RunNo: <b>74819</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>36132</b>		Analysis Date: <b>4/18/2022</b>	SeqNo: <b>1535287</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.100									

Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID: <b>MB-36079</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/12/2022</b>	RunNo: <b>74743</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>36079</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533857</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	119									
Heavy Oil	ND	119									
Total Petroleum Hydrocarbons	ND	238									
Surr: 2-Fluorobiphenyl	22.5		23.81		94.7	50	150				
Surr: o-Terphenyl	22.5		23.81		94.5	50	150				

Sample ID: <b>LCS-36079</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/12/2022</b>	RunNo: <b>74743</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>36079</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533858</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,140	235	1,176	0	97.3	57.2	125				
Surr: 2-Fluorobiphenyl	16.3		23.52		69.5	50	150				
Surr: o-Terphenyl	27.5		23.52		117	50	150				

Sample ID: <b>2204169-001BMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/12/2022</b>	RunNo: <b>74743</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36079</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533863</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,120	238	1,192	0	94.3	40.5	128				
Surr: 2-Fluorobiphenyl	17.1		23.83		71.9	50	150				
Surr: o-Terphenyl	24.2		23.83		102	50	150				

Sample ID: <b>2204169-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>			Prep Date: <b>4/12/2022</b>	RunNo: <b>74743</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36079</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533864</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,060	235	1,175	0	90.3	40.5	128	1,124	5.68	30	
Surr: 2-Fluorobiphenyl	20.6		23.51		87.7	50	150		0		
Surr: o-Terphenyl	28.5		23.51		121	50	150		0		



Date: 4/18/2022

**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID: <b>2204169-001BMSD</b>	SampType: <b>MSD</b>	Units: <b>µg/L</b>	Prep Date: <b>4/12/2022</b>	RunNo: <b>74743</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36079</b>	Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1533864</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>MB-36096</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74762</b>							
Client ID: <b>MBLKW</b>	Batch ID: <b>36096</b>		Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1534161</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Naphthalene	ND	0.100									
2-Methylnaphthalene	ND	0.100									
1-Methylnaphthalene	ND	0.100									
Acenaphthylene	ND	0.100									
Acenaphthene	ND	0.100									
Fluorene	ND	0.100									
Phenanthrene	ND	0.100									
Anthracene	ND	0.100									
Fluoranthene	ND	0.100									
Pyrene	ND	0.100									
Benz(a)anthracene	ND	0.100									
Chrysene	ND	0.100									
Benzo(b)fluoranthene	ND	0.100									
Benzo(k)fluoranthene	ND	0.100									
Benzo(a)pyrene	ND	0.100									
Indeno(1,2,3-cd)pyrene	ND	0.100									
Dibenz(a,h)anthracene	ND	0.100									
Benzo(g,h,i)perylene	ND	0.100									
Surr: 2-Fluorobiphenyl	1.45		2.000		72.5	38.8	131				
Surr: Terphenyl-d14	1.63		2.000		81.7	46	144				

Sample ID: <b>LCS-36096</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/13/2022</b>	RunNo: <b>74762</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>36096</b>		Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1534162</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Naphthalene	3.25	0.100	4.000	0	81.3	49.4	107				
2-Methylnaphthalene	3.22	0.100	4.000	0	80.5	50.9	107				
1-Methylnaphthalene	3.17	0.100	4.000	0	79.3	51.1	106				
Acenaphthylene	3.22	0.100	4.000	0	80.6	53.5	107				
Acenaphthene	3.26	0.100	4.000	0	81.5	51.2	105				



Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>LCS-36096</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/13/2022</b>	RunNo: <b>74762</b>				
Client ID: <b>LCSW</b>	Batch ID: <b>36096</b>					Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1534162</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	3.36	0.100	4.000	0	84.0	56	114				
Phenanthrene	3.27	0.100	4.000	0	81.9	56.4	110				
Anthracene	3.13	0.100	4.000	0	78.3	53.2	107				
Fluoranthene	3.34	0.100	4.000	0	83.6	60	115				
Pyrene	3.30	0.100	4.000	0	82.4	59	115				
Benzo(a)anthracene	3.37	0.100	4.000	0	84.3	56.5	119				
Chrysene	3.25	0.100	4.000	0	81.3	56.7	108				
Benzo(b)fluoranthene	3.72	0.100	4.000	0	93.1	51.6	115				
Benzo(k)fluoranthene	3.38	0.100	4.000	0	84.5	52.1	125				
Benzo(a)pyrene	3.28	0.100	4.000	0	81.9	51.6	120				
Indeno(1,2,3-cd)pyrene	3.70	0.100	4.000	0	92.4	46.4	111				
Dibenz(a,h)anthracene	3.76	0.100	4.000	0	94.1	47.7	116				
Benzo(g,h,i)perylene	3.38	0.100	4.000	0	84.6	46.1	117				
Surr: 2-Fluorobiphenyl	1.46		2.000		72.9	38.8	131				
Surr: Terphenyl-d14	1.61		2.000		80.6	46	144				

Sample ID: <b>2204167-002CDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>				Prep Date: <b>4/13/2022</b>	RunNo: <b>74762</b>				
Client ID: <b>GEI-12-W-041122</b>	Batch ID: <b>36096</b>					Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1534165</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	0.591	0.0996						0.5210	12.5	30	
2-Methylnaphthalene	0.987	0.0996						0.7992	21.0	30	
1-Methylnaphthalene	0.765	0.0996						0.6196	21.0	30	
Acenaphthylene	ND	0.0996						0		30	
Acenaphthene	ND	0.0996						0		30	
Fluorene	ND	0.0996						0		30	
Phenanthrene	ND	0.0996						0		30	
Anthracene	ND	0.0996						0		30	
Fluoranthene	ND	0.0996						0		30	
Pyrene	ND	0.0996						0		30	

Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>2204167-002CDUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74762</b>					
Client ID: <b>GEI-12-W-041122</b>	Batch ID: <b>36096</b>				Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1534165</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	0.0996						0		30	
Chrysene	ND	0.0996						0		30	
Benzo(b)fluoranthene	ND	0.0996						0		30	
Benzo(k)fluoranthene	ND	0.0996						0		30	
Benzo(a)pyrene	ND	0.0996						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0996						0		30	
Dibenz(a,h)anthracene	ND	0.0996						0		30	
Benzo(g,h,i)perylene	ND	0.0996						0		30	
Surr: 2-Fluorobiphenyl	1.38		1.992		69.2	38.8	131		0		
Surr: Terphenyl-d14	1.54		1.992		77.5	46	144		0		

Sample ID: <b>2204169-001CMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74762</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36096</b>				Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1534167</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	3.36	0.0994	3.976	0	84.4	56.4	103				
2-Methylnaphthalene	3.30	0.0994	3.976	0	83.0	55.9	104				
1-Methylnaphthalene	3.25	0.0994	3.976	0	81.7	57.4	102				
Acenaphthylene	3.27	0.0994	3.976	0	82.1	54.6	106				
Acenaphthene	3.37	0.0994	3.976	0	84.7	53.3	105				
Fluorene	3.48	0.0994	3.976	0	87.5	58.3	112				
Phenanthrene	3.38	0.0994	3.976	0	85.1	58	107				
Anthracene	3.11	0.0994	3.976	0	78.2	51.6	108				
Fluoranthene	3.45	0.0994	3.976	0	86.8	57.2	115				
Pyrene	3.40	0.0994	3.976	0	85.5	53.9	115				
Benz(a)anthracene	3.46	0.0994	3.976	0	87.1	49.4	120				
Chrysene	3.37	0.0994	3.976	0	84.7	51.9	106				
Benzo(b)fluoranthene	3.86	0.0994	3.976	0	97.1	44.4	114				
Benzo(k)fluoranthene	3.44	0.0994	3.976	0	86.5	41.8	121				
Benzo(a)pyrene	3.26	0.0994	3.976	0	81.9	37.2	123				

**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**

**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: <b>2204169-001CMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/13/2022</b>	RunNo: <b>74762</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36096</b>				Analysis Date: <b>4/14/2022</b>	SeqNo: <b>1534167</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Indeno(1,2,3-cd)pyrene	3.59	0.0994	3.976	0	90.2	28.9	112				
Dibenz(a,h)anthracene	3.62	0.0994	3.976	0	91.1	31.1	116				
Benzo(g,h,i)perylene	3.25	0.0994	3.976	0	81.8	29.3	116				
Surr: 2-Fluorobiphenyl	1.44		1.988		72.4	38.8	131				
Surr: Terphenyl-d14	1.59		1.988		80.1	46	144				

**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>LCS-36063</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/11/2022</b>	RunNo: <b>74707</b>					
Client ID: <b>LCSW</b>	Batch ID: <b>36063</b>				Analysis Date: <b>4/12/2022</b>	SeqNo: <b>1532940</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	452	50.0	500.0	0	90.4	65	135				
Surr: Toluene-d8	25.2		25.00		101	65	135				
Surr: 4-Bromofluorobenzene	25.7		25.00		103	65	135				

Sample ID: <b>MB-36063</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>4/11/2022</b>	RunNo: <b>74707</b>					
Client ID: <b>MBLKW</b>	Batch ID: <b>36063</b>				Analysis Date: <b>4/12/2022</b>	SeqNo: <b>1532929</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0									
Surr: Toluene-d8	24.6		25.00		98.3	65	135				
Surr: 4-Bromofluorobenzene	23.0		25.00		92.0	65	135				

Sample ID: <b>2204121-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/11/2022</b>	RunNo: <b>74707</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36063</b>				Analysis Date: <b>4/12/2022</b>	SeqNo: <b>1532914</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	24.5		25.00		97.9	65	135		0		
Surr: 4-Bromofluorobenzene	22.7		25.00		90.8	65	135		0		

Sample ID: <b>2204161-024ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L</b>			Prep Date: <b>4/11/2022</b>	RunNo: <b>74707</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36063</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1532923</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics (C6-C12)	69.7	50.0						103.0	38.6	30	
Surr: Toluene-d8	24.4		25.00		97.5	65	135		0		
Surr: 4-Bromofluorobenzene	23.1		25.00		92.5	65	135		0		

**NOTES:**

GRO - Indicates the presence of unresolved compounds in the gasoline range.

**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID: <b>2204132-003AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>			Prep Date: <b>4/11/2022</b>	RunNo: <b>74707</b>					
Client ID: <b>BATCH</b>	Batch ID: <b>36063</b>				Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1532918</b>					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2,100	50.0	500.0	1,435	133	65	135				
Surr: Toluene-d8	26.1		25.00		104	65	135				
Surr: 4-Bromofluorobenzene	29.0		25.00		116	65	135				



**Work Order:** 2204167  
**CLIENT:** GeoEngineers  
**Project:** 701 South Jackson

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>LCS-36063</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74709</b>				
Client ID: <b>LCSW</b>	Batch ID: <b>36063</b>					Analysis Date: <b>4/12/2022</b>	SeqNo: <b>1533002</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.6	0.440	20.00	0	98.1	80	120				
Toluene	20.1	0.750	20.00	0	100	80	120				
Ethylbenzene	20.1	0.400	20.00	0	101	80	120				
m,p-Xylene	39.0	1.00	40.00	0	97.5	80	120				
o-Xylene	19.3	0.500	20.00	0	96.4	80	120				
Surr: Dibromofluoromethane	22.1		25.00		88.4	80	120				
Surr: Toluene-d8	25.6		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	26.7		25.00		107	80	120				

Sample ID: <b>MB-36063</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74709</b>				
Client ID: <b>MBLKW</b>	Batch ID: <b>36063</b>					Analysis Date: <b>4/12/2022</b>	SeqNo: <b>1533001</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440									
Toluene	ND	0.750									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Surr: Dibromofluoromethane	25.0		25.00		100	80	120				
Surr: Toluene-d8	25.0		25.00		99.8	80	120				
Surr: 1-Bromo-4-fluorobenzene	23.1		25.00		92.5	80	120				

Sample ID: <b>2204121-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L-dry</b>				Prep Date: <b>4/11/2022</b>	RunNo: <b>74709</b>				
Client ID: <b>BATCH</b>	Batch ID: <b>36063</b>					Analysis Date: <b>4/12/2022</b>	SeqNo: <b>1532987</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440						0		30	
Toluene	ND	0.750						0		30	
Ethylbenzene	ND	0.400						0		30	



Work Order: 2204167  
 CLIENT: GeoEngineers  
 Project: 701 South Jackson

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>2204121-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/L-dry</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74709</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36063</b>	Analysis Date: <b>4/12/2022</b>	SeqNo: <b>1532987</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
Surr: Dibromofluoromethane	28.5		25.00		114	80	120		0		
Surr: Toluene-d8	25.3		25.00		101	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	22.7		25.00		91.0	80	120		0		

Sample ID: <b>2204132-002AMS</b>	SampType: <b>MS</b>	Units: <b>µg/L</b>	Prep Date: <b>4/11/2022</b>	RunNo: <b>74709</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>36063</b>	Analysis Date: <b>4/13/2022</b>	SeqNo: <b>1532990</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	24.0	0.440	20.00	0	120	78.5	133				
Toluene	24.6	0.750	20.00	0	123	77	133				
Ethylbenzene	25.5	0.400	20.00	0	128	77.9	133				
m,p-Xylene	48.7	1.00	40.00	0	122	74.8	133				
o-Xylene	24.2	0.500	20.00	0	121	81.2	126				
Surr: Dibromofluoromethane	23.3		25.00		93.2	80	120				
Surr: Toluene-d8	25.8		25.00		103	80	120				
Surr: 1-Bromo-4-fluorobenzene	27.8		25.00		111	80	120				

Client Name: GEI	Work Order Number: 2204167
Logged by: Gabrielle Coeuille	Date Received: 4/11/2022 4:21:00 PM

### **Chain of Custody**

1. Is Chain of Custody complete?      Yes       No       Not Present
2. How was the sample delivered?      Client

### **Log In**

3. Coolers are present?      Yes       No       NA
4. Shipping container/cooler in good condition?      Yes       No
5. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact)      Yes       No       Not Present
6. Was an attempt made to cool the samples?      Yes       No       NA
7. Were all items received at a temperature of >2°C to 6°C \*      Yes       No       NA
8. Sample(s) in proper container(s)?      Yes       No
9. Sufficient sample volume for indicated test(s)?      Yes       No
10. Are samples properly preserved?      Yes       No
11. Was preservative added to bottles?      Yes       No       NA
12. Is there headspace in the VOA vials?      Yes       No       NA
13. Did all samples containers arrive in good condition(unbroken)?      Yes       No
14. Does paperwork match bottle labels?      Yes       No
15. Are matrices correctly identified on Chain of Custody?      Yes       No
16. Is it clear what analyses were requested?      Yes       No
17. Were all holding times able to be met?      Yes       No

### **Special Handling (if applicable)**

18. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:  
 Client did not relinquish chain of custody

### **Item Information**

Item #	Temp °C
Sample 1	3.2

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C







**APPENDIX C**  
**Report Limitations and Guidelines for Use**

## **APPENDIX C**

### **REPORT LIMITATIONS AND GUIDELINES FOR USE<sup>1</sup>**

This Appendix provides information to help you manage your risks with respect to the use of this report.

#### **Read These Provisions Closely**

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations” provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these “Report Limitations and Guidelines for Use” apply to your project or site.

#### **Environmental Services Are Performed for Specific Purposes, Persons and Projects**

This report has been prepared for 701 South Jackson Partners, LLC. 701 South Jackson Partners, LLC may distribute copies of this report to 701 South Jackson Partners, LLC authorized agents and regulatory agencies as may be required for the project. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment or remedial action study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except 701 South Jackson Partners, LLC should rely on this report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

#### **This Environmental Report Is Based on a Unique Set of Project-Specific Factors**

This report applies to the property at 701 South Jackson Street in Seattle, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important project changes were made.

If important changes are made after the date of this remedial action plan, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

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<sup>1</sup> Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; [www.asfe.org](http://www.asfe.org).



### **Reliance Conditions for Third Parties**

No third party may rely on the product of our services unless GeoEngineers agrees in advance, and in writing to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

### **Environmental Regulations Are Always Evolving**

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

### **Subsurface Conditions Can Change**

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

### **Soil and Groundwater End Use**

The CULs referenced in this report are site- and situation-specific. The CULs may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced CULs. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

### **Most Environmental Findings Are Professional Opinions**

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. It is always possible that contamination exists in areas that were not explored, sampled or analyzed. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

### **Geotechnical, Geologic and Geoenvironmental Reports Should Not Be Interchanged**

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

## **Biological Pollutants**

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If the client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

