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October 1, 2021

Bucklin Place, LLC
8192 NE Hidden Cover Road
Bainbridge Island, Washington 98110

Attention: Bill Matthews

Subject: Focused Soil and Groundwater Investigation
Ultra Custom Cleaners Site
2222 NW Bucklin Hill Road
Silverdale, Washington
File No. 22828-001-04

INTRODUCTION

This report presents the results of GeoEngineers, Inc.'s (GeoEngineers) focused soil and groundwater sampling investigation at the former Ultra Custom Cleaners (UCC) tenant space at the Bucklin Place retail center located at 2222 NW Bucklin Hill Road in Silverdale, Washington (Property, Figure 1) that is owned by Bucklin Place, LLC. The Property is a commercial/retail development located within Kitsap County tax parcel 162501-4-111-2006. The UCC tenant space, located in Suite 105 of Bucklin Place operated formerly as a dry cleaning facility (herein referred to as the Site) from 1999 to March 2021 when Ultra Custom Cleaners ceased operations at the Property. The Site and surrounding physical features are shown on Figure 2.

Environmental investigations conducted to date at the Property have identified volatile organic compound (VOC) contamination, including the chlorinated solvents tetrachloroethylene (PCE) in soil and groundwater, and PCE and trichloroethylene (TCE) in indoor air or sub-slab soil vapor at, or adjacent to, Suite 105. Based on the findings of GeoEngineers' most recent investigation, the PCE impacts to soil and perched groundwater appear to be limited in lateral extent to approximately within or just beyond the footprint of the Suite 105 tenant space, and there is no evidence to indicate that the VOCs detected at the Property have affected the deeper area-wide groundwater aquifer. The discovery of a release of VOCs to soil, groundwater, and air at the UCC Site was reported to the Washington State Department of Ecology (Ecology) Northwest Regional Office (NWRO) in August 2016, and Ecology's current listed status for the Site is "Awaiting Cleanup."

A cleanup action is planned for the Property to meet the requirements of the Ecology Model Toxics Control Act (MTCA) cleanup regulation (Washington Administrative Code [WAC] 173-340). The current planning anticipates that the cleanup action will be initiated while Suite 105 is vacant to allow for focused source

area soil excavation to remove the soil with the highest contaminant concentrations followed by direct application of an amendment to facilitate the bioremediation of the contaminants in shallow soil and groundwater beneath the Suite 105 footprint. The focused soil and groundwater sampling and analysis outlined below was conducted to address data gaps regarding the lateral and vertical extent of the chlorinated solvent-containing soil beneath the Suite 105 footprint, and provide the information to further evaluate the costs of expanded soil excavation and disposal.

The findings of previous soil and groundwater investigations conducted in 2016 by other consultants (Landau Associates 2016) and in 2017 and 2018 by GeoEngineers (GeoEngineers 2018) indicate the following:

- A release of chlorinated solvents to Site soil has occurred within the former dry cleaner located in Suite 105 (Figures 2 and 3, Tables 1 and 2). The concentrations of PCE in soil sampled at boring B3 at depths of 3.5 and 5.5 feet below ground surface (bgs) were greater than the MTCA Method A cleanup level of 0.05 mg/kg for unrestricted land uses.
- Soil and groundwater analytical results for samples collected from borings located to the north and east of Suite 105 (SB-1 and SB-2) bound the extent of the PCE concentrations in these directions.
- Soil and groundwater analytical results for samples collected from borings SB-3 and SB-5 have identified PCE in soil and perched groundwater approximately 15 feet south of the southwest corner of Suite 105.
- Analytical results for the samples collected during the drilling of MW1 (Figure 2) indicate that VOCs were not detected at concentrations greater than the laboratory reporting limits in shallow soil or the perched groundwater approximately 50 feet to the south and hydraulically downgradient of the southwest corner of Suite 105.
- Analytical results for the groundwater sample collected from MW1, which is screened within the deeper aquifer beneath a confining till layer downgradient from the former dry cleaner, indicates that VOCs were not detected at concentrations greater than the laboratory reporting limits.

The data gaps based on the previously collected information are:

- The vertical and lateral extent of the PCE in perched groundwater beneath Suite 105 and to the west (i.e., beneath the west-adjoining tenant space, Suite 104); and
- The vertical extent of the PCE-impacted soil beneath Suite 105.

FOCUSED SOIL AND GROUNDWATER INVESTIGATION – FORMER UCC TENANT SPACE

To further evaluate and document the nature and extent of the VOC contamination at the Site, GeoEngineers conducted additional focused investigation of the soil and groundwater beneath the Suite 105 tenant space.

Soil Sampling

The objective of the focused investigation was to address data gaps regarding sub-slab soil conditions within the footprint of the former dry cleaner tenant space and the potential for historical property uses to have impacted Site soil and/or groundwater. Boring locations were chosen to correspond to former dry

cleaning equipment locations and locations where higher concentrations of VOCs were detected in soil sampled during previous investigations.

Field Exploration and Sampling

Figure 2 shows the approximate exploration locations. On July 23, 2021, following pre-field coordination by a private utility locator to mark and clear the proposed boring locations for underground utilities and magnetic anomalies, GeoEngineers completed the following:

- Monitored the drilling of seven (7) soil borings using direct-push equipment operated by Cascade Drilling of Woodinville, Washington. Limited access drilling equipment was used to accommodate operation within Suite 105. Exploration depths ranged from 1.5 to 6 feet bgs; the maximum drilling depth at each location was dictated by refusal encountered during drilling.
- Explorations B7 through B15 were located on the concrete floor slab within Suite 105. A coring drill was used to penetrate the slab before proceeding with the direct-push drilling. The slab was approximately 3 inches in thickness at all locations and was underlain by a subgrade base of approximately 3 inches of coarse gray sand and gravel and a layer of black plastic assumed to be a moisture vapor barrier. Soil encountered below the subgrade base and plastic was generally characterized as very dense brown silty fine sand to silt with fine sand. Refusal was encountered at all borings at depths ranging from 1.5 to 6 feet bgs. Perched groundwater was not encountered in any borings at the explored depths.

  The presence of utilities required the final locations of several borings to be adjusted; borings B13 and B14 could not be completed due to the risk of encountering buried utilities during drilling.
- Soil samples were collected continuously for field-screening to evaluate whether VOCs were present and for visual soil classification. Selected soil samples were submitted for laboratory chemical analysis for PCE, TCE, and their breakdown products by United States Environmental Protection Agency (EPA) Method 8260.

  The scope of services included the collection and analysis of perched groundwater if encountered; no free perched groundwater was encountered during drilling within the tenant space, so no groundwater grab samples were collected.

Chemical analytical data for the samples obtained during the investigation were compared to the respective MTCA Method A cleanup levels (Ecology 2013). MTCA Method B cleanup levels were used for analytes where MTCA Method A cleanup levels are not established. Field methods and completed boring logs are included in Appendix A.

Utility Excavation Soil Sampling

During construction excavation to extend additional water utilities to the southeast corner of Suite 105, grab soil samples were collected for field screening and chemical analysis from soil exposed during trenching. On August 5, 2021, grab soil samples were collected from two locations (UT1 and UT2, Figures 2 and 3) along the sidewalls of the utility trench excavation that extended south across the parking lot from the southeast corner of Suite 105 and to a depth of 4 feet bgs.

No field screening evidence of the presence of VOCs was noted. Soil exposed in the utility trench excavation was characterized as very dense brown silty fine sand with gravel to silt with fine sand. Selected soil

samples were submitted for laboratory chemical analysis for PCE, TCE, and their breakdown products by EPA Method 8260.

Analytical Results

Soil chemical analytical results from the recent direct-push investigation and trench sampling are summarized in Table 1 with the sample analytical results from the previous investigations. Although no perched groundwater was encountered during the recent direct-push investigation, the groundwater analytical results for samples collected during previous investigations are summarized for reference in Table 2. Thea analytical results for contaminants detected in soil to date are shown on Figure 3. Laboratory analytical data reports are included in Appendix B.

Eleven soil samples collected from the seven direct-push borings (B7 through B12 and B15) and three soil samples collected from the two utility trench excavation locations (UT1 and UT2) were submitted for chemical analysis for VOCs.

PCE was detected at concentrations greater than the laboratory reporting limits in soil samples GEI-B7-2-3 collected at 2 feet bgs and GEI-B7-4-5 collected at 4 feet bgs, at concentrations of 0.0322 milligrams per kilogram (mg/kg) and 0.0903 mg/kg, respectively. PCE was also detected in sample GEI-B9-1.5-2.5 at a concentration of 0.0378 mg/kg and in sample GEI-B10-1.5-2.5 at a concentration of 0.0356 mg/kg. The concentration of PCE in soil sample GEI-B7-4-5 was greater than the MTCA Method A cleanup level of 0.05 mg/kg for unrestricted land uses; all other detected concentrations were less than the Method A cleanup level. All of these samples were collected from the soil interval at the depth of refusal in each of the three borings, and deeper samples could not be collected.

PCE and other VOCs were not detected at concentrations greater than the laboratory reporting limits in the remaining samples analyzed, including those collected from the direct-push drilling and utility trench excavation.

SUMMARY

The analytical results for PCE in soil are shown relative to the MTCA Method A cleanup level on Figure 4 and in cross sections in Figures 5 and 6, and are summarized below along with the available groundwater data.

- Chemical analytical results for the soil samples collected to date from the shallow borings within Suite 105 and from deeper direct-push borings located around the exterior of the tenant space indicate that the extent of PCE in shallow soil is limited to the approximate footprint of the front (south) 10 feet of the Suite 105 tenant space (Figures 2 and 3, borings B3, B7, B9 and B10).
- Concentrations of PCE in soil at B3 and B7 were greater than the MTCA Method A cleanup level in samples collected at explored depths of 5 to 6 feet bgs.
- Concentrations of PCE less than the MTCA Method A cleanup level were also present in borings B5 and B6 located in the central portion of Suite 105, but unlike borings B3, B7, B9 and B10, PCE was not detected at B5 and B6 in the overlying shallow soil.
- Borings B5 and B6 were both located near underground utilities. These utilities (water and sewer) extend roughly north-south through the front area of Suite 105 where PCE was observed in Site

soil. The utility lines and any associated backfill could potentially be conduits for the lateral migration of contaminants.

- Due to refusal during drilling, perched groundwater could not be collected from the borings advanced within the footprint of Suite 105.
- Outside the tenant space footprint, PCE was detected in soil at concentrations less than the MTCA Method A cleanup level in an area extending approximately 15 feet south of the southwest corner of Suite 105 at depths up to 8 to 9 feet bgs (borings SB-3 and SB-5). PCE was not detected in soil collected from depths up to 4 feet bgs at the southeast corner of Suite 105 (locations UT1 and UT2).
- Perched groundwater collected in borings SB-3 and SB-5 at a depth of approximately 7 feet bgs indicated concentrations of PCE greater than the MTCA Method A cleanup level.
- The chemical analytical results for soil and groundwater from the perched groundwater zone, and from the deeper area aquifer, collected about 50 feet downgradient (south-southwest) from the UCC tenant space did not indicate VOCs at concentrations greater than the laboratory reporting limits. The data indicate that that the VOCs detected in soil and groundwater at and immediately south of the tenant space do not extend to perched groundwater in the downgradient southern portion of the Property, or within the deeper area-wide aquifer.

The investigations to date indicate the following:

- The extent of the PCE in soil and perched groundwater appears to be limited in lateral extent to approximately within or just beyond the footprint of the UCC tenant space.
- Evidence to date indicates that the VOCs detected at the Site have not affected the deeper area-wide artesian aquifer that is present at about 45 feet bgs at downgradient well MW1. The deeper aquifer in this location is present beneath a confining till layer that was about 18 feet in thickness where encountered during drilling.
- Removal of contaminated soil with the highest identified concentrations of PCE within the Suite 105 tenant space will require excavation to a depth of approximately 7 to 8 feet bgs in the front 10 feet of the building.
- Following remedial soil removal, a bioremediation amendment applied in the excavation backfill would facilitate the natural degradation of the residual concentrations of contaminants in shallow soil and perched groundwater beneath the Suite 105 footprint and the area extending to the southeast of Suite 105.
- Follow up groundwater monitoring and sampling will provide the data needed to document the post remedial action perched groundwater conditions in the vicinity of Suite 105 and assess the effectiveness of the focused soil removal and the bioremediation treatment in reducing the PCE concentrations in groundwater.

REFERENCES

GeoEngineers, Inc., 2018. Focused Soil and Groundwater Investigation, Ultra Custom Cleaners, 2222 NW Bucklin Hill Road, Silverdale, Washington. GEI File No 22828-001-01. April 10, 2018.

Landau Associates, Inc., 2016. Technical Memorandum, Air, Sub-Slab Soil Vapor, Soil, and Groundwater Sampling and Analysis Results, Ultra Custom Cleaners Tenant Space – Bucklin Place, Silverdale, Washington. Landau Associates Project No 1595001.020.025. June 29, 2016.

Washington State Department of Ecology (Ecology), 2013. Model Toxics Control Act Regulation and Statute. Publication No. 94-06. Revised 2013.

LIMITATIONS

We have prepared this letter report for use by Bucklin Place, LLC and their authorized agents as part of their evaluation of and planning for environmental conditions at the properties located at 2222 NW Bucklin Hill Road in Silverdale, Washington. Our work was completed in accordance with our signed agreement executed June 27, 2021. No other party may rely on the product of our services unless we agree 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.

We relied on information obtained from others in the preparation of this report. It is always possible that environmental conditions exist that were not identified or investigated thoroughly. 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.

We appreciate the opportunity to work with you on this project. If you have any questions please contact us.

Sincerely,
GeoEngineers, Inc.

Ian D. Young, LG
Senior Geologist

Tim L. Syverson, LHG
Associate

IDY:TLS:ch

Attachments:
Table 1. Site Characterization, Soil Field Screening and Chemical Analytical Data (VOCs)
Table 2. Site Characterization, Groundwater Chemical Analytical Data (VOCs)
Figure 1. Vicinity Map
Figure 2. Site Plan
Figure 3. Soil Analytical Results
Figure 4. Summary of Soil Analytical Results
Figure 5. Cross Section A-A'
Figure 6. Cross Section B-B'
Appendix A. Field Methods and Boring Logs
Appendix B. Laboratory Analytical Data Reports

Table 1

Site Characterization, Soil Field Screening and Chemical Analytical Data (VOCs)

Ultra Custom Cleaners

2222 NW Bucklin Hill Road

Silverdale, Washington

Exploration Location[1]	Sample ID	Sample Date	Depth (feet bgs)	Field Screening[2]		VOCs[3] (mg/kg)				
				Sheen	Headspace (ppm)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs[4]
Direct-push borings sampled by Landau Associates May 11, 2016										
SB-1	SB-1-(2.5-3.5)	5/11/2016	2.5	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND
	SB-1-(6-7)	5/11/2016	6.0	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND
SB-2	SB-2-(1.5-2.5)	5/11/2016	1.5	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND
	SB-2-(10-11)	5/11/2016	10.0	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND
SB-3	SB-3-(8-9)	5/11/2016	8.0	--	--	**0.029**	< 0.01	< 0.01	< 0.01	ND
	SB-3-(12.5-13)	5/11/2016	12.5	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND
SB-4	SB-4-(1-2)	5/11/2016	1.0	--	--	< 0.01	< 0.01	< 0.01	< 0.01	ND
SB-5	SB-5-(3-4)	5/11/2016	3.0	--	--	**0.020**	< 0.01	< 0.01	< 0.01	ND
	SB-5-(8-9)	5/11/2016	8.0	--	--	**0.031**	< 0.01	< 0.01	< 0.01	ND
Direct-push borings sampled by GeoEngineers February 8, 2018										
B1	GEI-B1-1.5-2	2/8/2018	1.5	NS	6.5	< 0.0241	< 0.0193	< 0.0193	< 0.0241	ND
	GEI-B1-3.5-4	2/8/2018	3.5	NS	8.2	< 0.0267	< 0.0214	< 0.0214	< 0.0267	ND
B2	GEI-B2-1.5-2	2/8/2018	1.5	NS	8.7	< 0.0253	< 0.0202	< 0.0202	< 0.0253	ND
	GEI-B2-3.5-4	2/8/2018	3.5	NS	5.3	< 0.0272	< 0.0218	< 0.0218	< 0.0272	ND
B3	GEI-B3-3.5-4	2/8/2018	3.5	NS	7.5	**0.0905**	< 0.0200	< 0.0200	< 0.0249	ND
	GEI-B3-5.5-6	2/8/2018	5.5	NS	2.4	**0.0653**	< 0.0232	< 0.0232	< 0.0290	ND
B4	GEI-B4-1.5-2	2/8/2018	1.5	NS	4.6	< 0.0268	< 0.0215	< 0.0215	< 0.0268	ND
B5	GEI-B5-3.5-4	2/8/2018	3.5	NS	4.8	< 0.0220	< 0.0176	< 0.0176	< 0.0220	ND
	GEI-B5-5.5-6	2/8/2018	5.5	NS	3.6	**0.0373**	< 0.0214	< 0.0214	< 0.0267	ND
B6	GEI-B6-1.5-2	2/8/2018	1.5	NS	2.6	< 0.0216	< 0.0173	< 0.0173	< 0.0216	ND
	GEI-B6-3.5-4	2/8/2018	3.5	NS	12.2	**0.0475**	< 0.0208	< 0.0208	< 0.0260	ND
	GEI-B6-5.5-6	2/8/2018	5.5	NS	6.4	< 0.0258	< 0.0207	< 0.0207	< 0.0258	ND
Sonic boring sampled by GeoEngineers March 1, 2018										
MW1	GEI-MW1-14.5-15	3/1/2018	14.5	NS	< 1	< 0.0274	< 0.0219	< 0.0219	< 0.0274	ND
Direct-push borings sampled by GeoEngineers July 23, 2021										
B7	GEI-B7-2-3	7/23/2021	2.0	NS	1.2	**0.0322**	< 0.0113	< 0.0141	< 0.0141	ND
	GEI-B7-4-5	7/23/2021	4.0	NS	< 1	**0.0903**	< 0.0123	< 0.0154	< 0.0154	ND
B8	GEI-B8-2-3	7/23/2021	2.0	NS	1.4	< 0.0234	< 0.0117	< 0.0146	< 0.0146	ND
	GEI-B8-3-4	7/23/2021	3.0	NS	1.1	< 0.0285	< 0.0143	< 0.0178	< 0.0178	ND
B9	GEI-B9-1.5-2.5	7/23/2021	1.5	NS	1.0	**0.0378**	< 0.0139	< 0.0174	< 0.0174	ND
B10	GEI-B10-1.5-2.5	7/23/2021	1.5	NS	< 1	**0.0356**	< 0.0114	< 0.0143	< 0.0143	ND
B11	GEI-B11-1.5-2.5	7/23/2021	1.5	NS	2.8	< 0.0278	< 0.0138	< 0.0172	< 0.0172	ND
	GEI-B11-4-5	7/23/2021	4.0	NS	2.4	< 0.0287	< 0.0133	< 0.0167	< 0.0167	ND
B12	GEI-B12-0-1	7/23/2021	0.0	NS	1.1	< 0.0245	< 0.0123	< 0.0153	< 0.0153	ND
B15	GEI-B15-0.5-1.5	7/23/2021	0.5	NS	1.3	< 0.0223	< 0.0112	< 0.0140	< 0.0140	ND
	GEI-B15-4-5	7/23/2021	4.0	NS	1.3	< 0.0237	< 0.0118	< 0.0148	< 0.0148	ND
Grab soil sampled during utility excavation by GeoEngineers August 5, 2021										
UT1	EX-UT1-3-4	8/5/2021	3.0	NS	< 1	< 0.0365	< 0.0182	< 0.0228	< 0.0228	ND
UT2	EX-UT2-1.5-2	8/5/2021	1.5	NS	< 1	< 0.0377	< 0.0189	< 0.0236	< 0.0236	ND
	EX-UT2-3-4	8/5/2021	3.0	NS	< 1	< 0.0399	< 0.0200	< 0.0249	< 0.0249	ND
MTCA Method A or Method B Cleanup Levels for Unrestricted Land Use						0.05	0.03	160[5]	240[5]	NA

Notes:

[1]Approximate exploration locations shown on Figure 2.

[2]Field screening methods are described in Appendix A.

[3]Volatile organic compounds (VOCs) analyzed by U.S. Environmental Protection Agency (EPA) Method 8260.

[4]Only selected chlorinated solvents are shown; refer to laboratory reports in Appendix C for complete list of method analytes and detection limits.

[5]Model Toxics Cleanup Act (MTCA) Method B cleanup level for direct contact derived from Ecology's "CLARC Master Spreadsheet.xlsx" updated January 2020.

bgs = below pre-construction ground surface.

mg/kg = milligrams per kilogram

-- = not tested

ppm = parts per million

NA = No listed value

ND = Analytes not detected at laboratory reporting limits.

NS = no sheen

SS = slight sheen

Bolding indicates analyte was detected.

Shading indicates that concentration exceeded Model Toxics Control Act (MTCA) cleanup level.

GeoEngineers' chemical analytical testing by Fremont Analytical in Seattle, Washington. Laboratory analytical reports in Appendix B.

Table 2

Site Characterization, Groundwater Chemical Analytical Data (VOCs)

Ultra Custom Cleaners

2222 NW Bucklin Hill Road

Silverdale, Washington

Sample ID[1]	Depth to Groundwater (from TOC)	Groundwater Elevation (Feet NAVD88)	Sample Date	VOCs[2] (µg/L)				
				Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,2-Dichloroethane	Vinyl Chloride	Other VOCs[3]
Grab groundwater sampled by Landau Associates May 11, 2016								
SB-1	--	--	5/11/2016	< 2.0	< 2.0	< 2.0	< 0.20	ND
SB-3	--	--	5/11/2016	**210**	< 2.0	< 2.0	< 0.20	ND
SB-5	--	--	5/11/2016	**170**	< 2.0	< 2.0	< 0.20	ND
Grab groundwater sampled by GeoEngineers March 1, 2018								
GEI-MW1-180301[4]	--	--	3/1/2018	< 1.00	< 0.500	< 1.00	< 0.200	ND
Monitoring well sampled by GeoEngineers March 7, 2018								
GEI-MW1-180307			3/7/2018	< 1.00	< 0.500	< 1.00	< 0.200	ND
MTCA Method A or B Cleanup Level for Unrestricted Land Use				5	5	5	0.2	--

Notes:

[1]Sampling locations shown on Figure 3.

[2]Volatile Organic Compounds (VOCs) analyzed by U.S. Environmental Protection Agency (EPA) Method 8260C. Refer to laboratory report for individual analytes and detection limits.

[3]Only selected chlorinated solvents are shown; refer to laboratory reports in Appendix C for complete list of method analytes and detection limits.

[4]Sample collected from perched groundwater zone during drilling at approximately 14 feet below ground surface.

µg/L = micrograms per liter

ND = Not Detected

TOC = top of casing

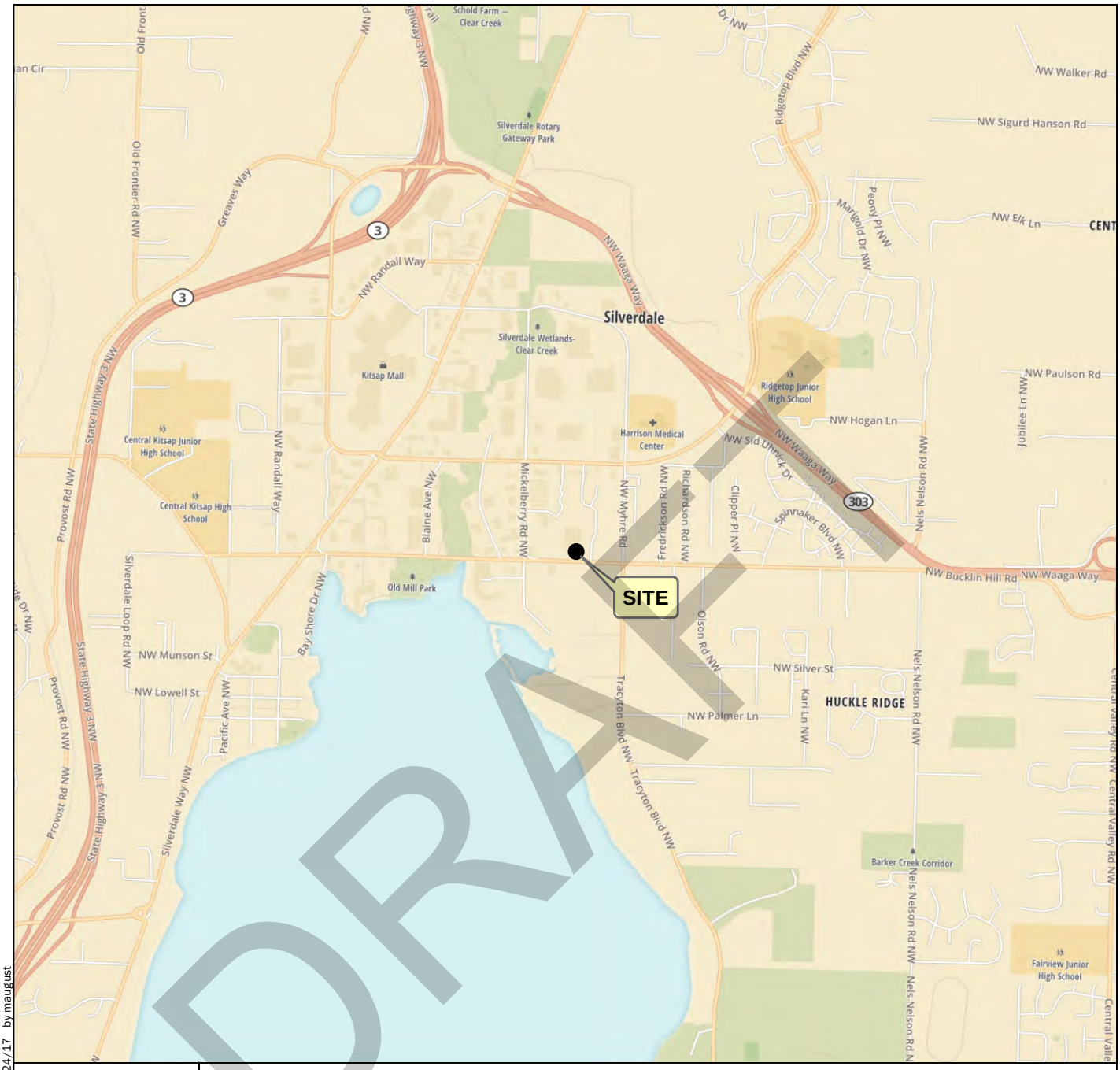
NAVD88 = North American Vertical Datum of 1988

µg/L = microgram per liter

Bolding indicates analyte was detected.

Shading indicates exceedance of Model Toxics Control Act (MTCA) cleanup level.

GeoEngineers' chemical analytical testing by Fremont Analytical in Seattle, Washington. Laboratory analytical reports in Appendix B.



N
W E
S

2,000 0 2,000

Feet

Vicinity Map

Ultra Custom Cleaners
2222 NW Buckling Hill Road
Silverdale, Washington

GeoEngineers

Figure 1

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: Mapbox Open Street Map, 2017

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

P:\22\22828001\GIS\MXD\22828001_F01_VicinityMap.mxd Date Exported: 07/24/17 by maugust

Legend

- Study Area
- B1 — Boring Location (GeoEngineers, Inc., 2018, 2021)
- MW-1 — Monitoring Well Location (GeoEngineers, Inc., 2018)
- UT2 — Grab Sample Location (GeoEngineers, Inc., 2021)
- SB-4 — Boring Location (Landau 2016)

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: Aerial from Google Earth Pro., Dated May 2019..

Projection: Washington State Plane, North Zone, NAD83, US Foot

N W E S

20 0 20
Feet

Site Plan

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 2

Tractor Supply Company

B6	1.5 - 2 ft	3.5 - 4 ft	5.5 - 6 ft
PCE	ND	**0.0475**	ND
TCE	ND	ND	ND

SB-1	2.5 - 3.5 ft	6 - 7 ft
PCE	ND	ND
TCE	ND	ND

SB-4	2.5 - 3.5 ft
PCE	ND
TCE	ND

B15	0.5 - 1.5 ft	4 - 5 ft
PCE	ND	ND
TCE	ND	ND

SB-1

Alley

B4	1.5 - 2 ft	3.5 - 4 ft
PCE	ND	ND
TCE	ND	ND

B15

B12	0 - 1 ft
PCE	ND
TCE	ND

B4

B2	1.5 - 2 ft	3.5 - 4 ft
PCE	ND	ND
TCE	ND	ND

B6

Suite 105

SB-2	1.5 - 2.5 ft	10 - 11 ft
PCE	ND	ND
TCE	ND	ND

SB-4

B12

SB-2

B1	1.5 - 2 ft	3.5 - 4 ft
PCE	ND	ND
TCE	ND	ND

B2

B5

B11

B1

B11	1.5 - 2.5 ft	4 - 5 ft
PCE	ND	ND
TCE	ND	ND

B8	2 - 3 ft	4 - 5 ft
PCE	ND	ND
TCE	ND	ND

B

B8

B'

B3

B7	2 - 3 ft	4 - 5 ft
PCE	**0.0322**	**0.0903**
TCE	ND	ND

B7

B9

B10

B3	3.5 - 4 ft	5.5 - 6 ft
PCE	**0.0905**	**0.0653**
TCE	ND	ND

B10	1.5 - 2.5 ft
PCE	**0.0356**
TCE	ND

B9	1.5 - 2.5 ft
PCE	**0.0378**
TCE	ND

Sidewalk

UT1

B5	3.5 - 4 ft	5.5 - 6 ft
PCE	ND	**0.0373**
TCE	ND	ND

UT1	3 - 4 ft
PCE	ND
TCE	ND

SB-5

SB-3

UT2

SB-5	3 - 4 ft	8 - 9 ft
PCE	**0.02**	**0.031**
TCE	ND	ND

A

A'

Parking

SB-3	8 - 9 ft	12.5 - 13 ft
PCE	**0.029**	ND
TCE	ND	ND

UT2	1.5 - 2 ft	3 - 4 ft
PCE	ND	ND
TCE	ND	ND

Legend

- Study Area
- B1 — Boring Location (GeoEngineers, Inc., 2018, 2021)
- UT2 — Grab Sample Location (GeoEngineers, Inc., 2021)
- SB-4 — Boring Location (Landau 2016)
- Approximate Former Location of Dry Cleaning Machine

Data Box Explanation:

B3	3.5 - 4 ft	5.5 - 6 ft	← Exploration Location; Sample Depth
PCE	**0.0905**	**0.0653**	← Analytical Result
TCE	ND	ND	

PCE — Tetrochloroethene

TCE — Trichloroethene

ND — Analyte Not Detected at Laboratory Detection Limit

Bolding indicates analyte was detected

Shading indicates Concentration Exceeds Model Toxics Control Act (MTCA) cleanup level

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: Background data received 09/08/21.

Projection: Washington State Plane, North Zone, NAD83, US Foot

N W E S

10 0 10
Feet

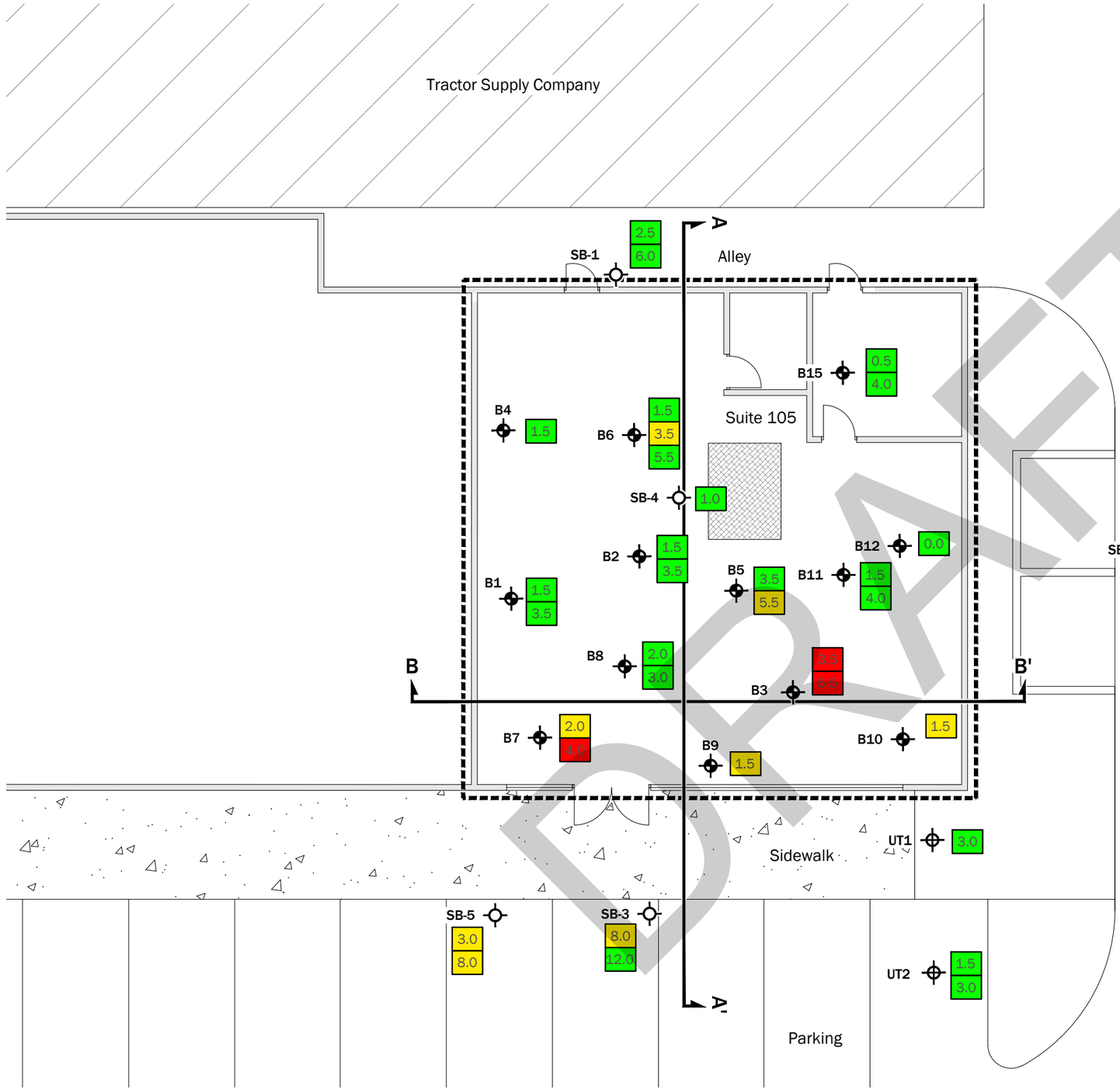
Soil Analytical Results

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 3

P:\22\22828001\CAD\04\Environmental Report\228280104_F03-F06_Plans and Sections.dwg TAB:F03 Date Exported: 09/30/21 - 13:23 by dlandi



Legend

- Study Area
- B1 — Boring Location (GeoEngineers, Inc., 2018, 2021)
- UT2 — Grab Sample Location (GeoEngineers, Inc., 2021)
- SB-4 — Boring Location (Landau 2016)

Contaminant Concentration in Soil

- 1.5 / 4.0 — Sample Depth in feet (Indicates Top of Sample in Depth Below Ground Surface)
- PCE was not detected
- PCE was detected at a concentration less than the MTCA MEthod A Cleanup Level of 0.05 mg/kg
- PCE was detected at a concentration greater than the MTCA Method A Cleanup Level of 0.05 mg/kg
- Approximate Former Location of Dry Cleaning Machine

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: Background data received 09/08/21.

Projection: Washington State Plane, North Zone, NAD83, US Foot

N W E S

10 0 10
Feet

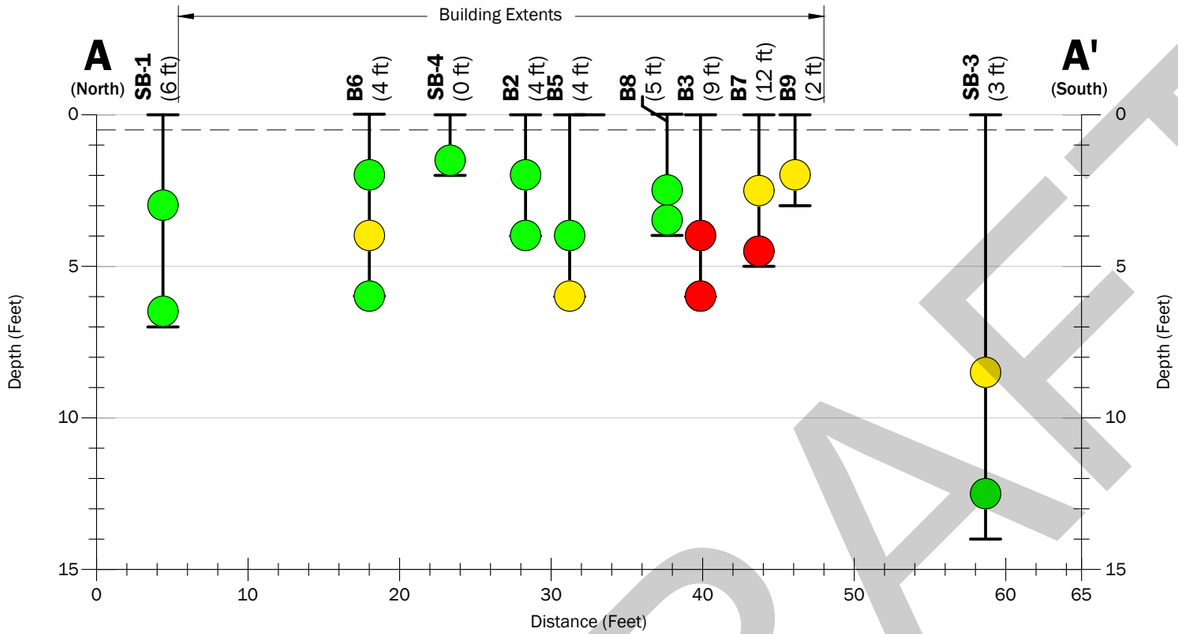
Summary of Soil Analytical Results

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 4

P:\22\22828001\CAD\04\Environmental Report\22828001104_F02-F04_Site Plan and Sections.dwg TAB:F04 Date Exported: 09/30/21 - 9:06 by dlandi



Legend

Boring ID (Offset)

Exploration

Inferred Soil Contact

PCE was not detected

PCE was detected at a concentration less than the MTCA MEthod A Cleanup Level of 0.05 mg/kg

PCE was detected at a concentration greater than the MTCA Method A Cleanup Level of 0.05 mg/kg

Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

10 0 10
Horizontal Scale in Feet

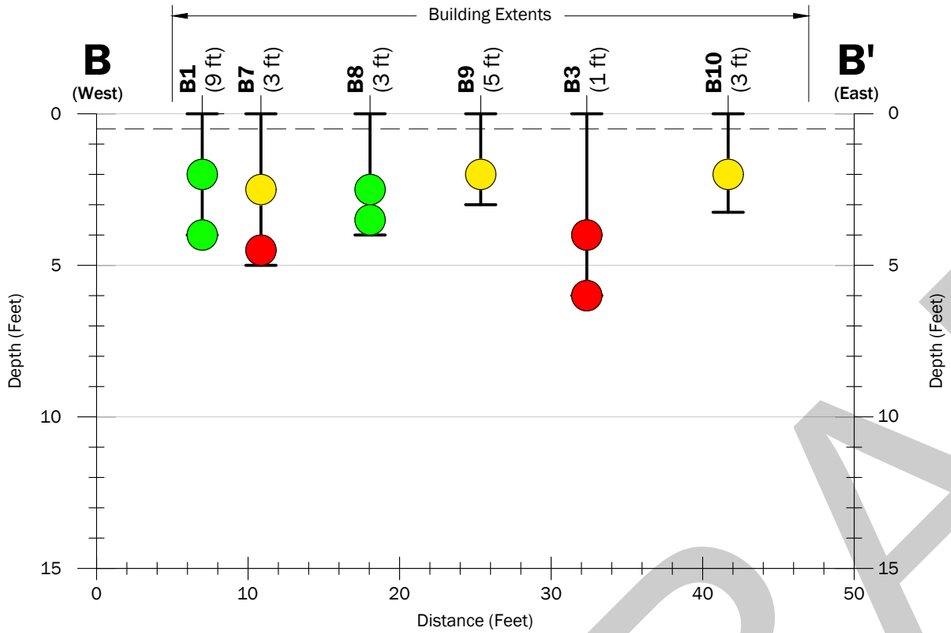
5 0 5
Vertical Scale in Feet
Vertical Exaggeration: 2X

Cross Section A-A'

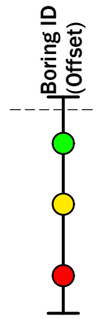
Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 5



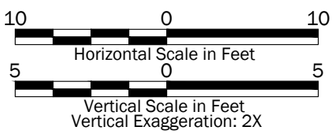
Legend



- Exploration
- Inferred Soil Contact
- PCE was not detected
- PCE was detected at a concentration less than the MTCA MEthod A Cleanup Level of 0.05 mg/kg
- PCE was detected at a concentration greater than the MTCA Method A Cleanup Level of 0.05 mg/kg

Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.



Cross Section B-B'

Ultra Custom Cleaners
2222 NW Bucklin Hill Road
Silverdale, Washington

GeoEngineers

Figure 6

APPENDIX A
Field Methods and Boring Logs

APPENDIX A
FIELD METHODS AND BORING LOGS

Underground Utility Locate

Prior to drilling activities, an underground utility locate was conducted in the areas of the proposed boring locations to identify subsurface utilities and/or potential underground physical hazards. The underground utility check consisted of contacting a local utility alert service (one-call) and hiring a private utility locating service.

Soil Sampling

The direct-push explorations were completed using direct-push drilling equipment. Soil samples were obtained using a 2-foot-long core sampler. The sampler was driven into the soil using a pneumatic hammer. Upon retrieval, the sampler was opened and a GeoEngineers representative examined the soil and performed field screening tests. The boring logs are presented in Figures A-2 through A-13.

Selected soil samples were obtained in glass jars (supplied by the analytical laboratory), labeled and stored in a cooler with ice pending delivery to the laboratory. VOC samples were collected directly from the sample sleeve using the 5035A sampling method. All sampling equipment was decontaminated between samples using a Liqui-Nox® wash solution and distilled water rinse.

Selected samples from the explorations were submitted for chemical analysis based on field screening results. The soil samples were placed in a cooler with ice for transport to the laboratory. Standard chain-of-custody procedures were followed in transporting the soil samples to the laboratory. Drill cuttings were placed in drums pending disposal.

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 3) vapor headspace screening with a photo-ionization detector (PID). The results of headspace and sheen screening are included in the 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.

Moderate Sheen (MS) Light to heavy sheen, may have some color/iridescence; spread is irregular to flowing; 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. A lower threshold of significance of 1 ppm was used in this application. Field screening results are site-specific and vary with soil type, soil moisture content, temperature and type of contaminant.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

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

ADDITIONAL MATERIAL SYMBOLS

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

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata

Approximate contact between soil strata

Material Description Contact

Contact between geologic units

Contact between soil of the same geologic unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

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.

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 density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

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

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.

Key to Exploration Logs

GeoEngineers

Figure A-1

Drilled	Start 2/8/2018	End 2/8/2018	Total Depth (ft)	4	Logged By	PDR	Driller	ESN Northwest	Drilling Method	Direct-Push
					Checked By	IDY				

Surface Elevation (ft) Vertical Datum	Undetermined	Hammer Data	NA	Drilling Equipment	Power Probe 9100P
Easting (X) Northing (Y)		System Datum	NA	Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		24					CC	Approximately 2 inches of concrete cement			
								SP	Gray fine to coarse sand with fine gravel			
								SM	Brown silty fine to coarse sand with fine gravel (moist)			
						GEI-B1-1.5-2 CA				NS	6.5	
								ML	Brown silt with fine sand	NS	6.2	
								SM	Brown silty fine to medium sand with occasional coarse sand and fine gravel (moist)			
						GEI-B1-3.5-4 CA				NS	8.2	

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

Log of Boring GEI-B1

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-2
Sheet 1 of 1

Drilled Start 2/8/2018 End 2/8/2018	Total Depth (ft) 4	Logged By PDR Checked By IDY	Driller ESN Northwest	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data NA		Drilling Equipment Power Probe 9100P	
Easting (X) Northing (Y)		System Datum NA		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		24					CC	Approximately 2 inches of concrete cement			
								SP	Gray fine to coarse sand with fine to coarse gravel (moist)			
								SM	Brown silty fine to coarse sand with fine gravel (moist)			
						GEI-B2-1.5-2 CA				NS	8.7	
						GEI-B2-3.5-4 CA				NS	5.3	

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

Log of Boring GEI-B2

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-3
Sheet 1 of 1

Drilled	Start 2/8/2018	End 2/8/2018	Total Depth (ft) 6	Logged By PDR / Checked By IDY	Driller ESN Northwest	Drilling Method Direct-Push
Surface Elevation (ft) / Vertical Datum	Undetermined		Hammer Data	NA	Drilling Equipment	Power Probe 9100P
Easting (X) / Northing (Y)			System Datum	NA	Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0					CC	Approximately 2 inches of concrete cement			
		12		GEI-B3-0.5-1 CA		SP	Brown fine to coarse sand with fine to coarse gravel (moist)	NS	<1	
				GEI-B3-1.5-2 CA		SM	Brown silty fine sand (moist)	NS	1.6	
		24								
						SM	Brown silty fine to coarse sand with occasional fine gravel (moist)			
				GEI-B3-3.5-4 CA				NS	7.5	
		24				SM	Brown silty fine to medium sand (moist)			
	5						Grades to more silt, moist to wet			
				GEI-B3-5.5-6 CA				NS	2.4	

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

Log of Boring GEI-B3

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-4
Sheet 1 of 1

Drilled Start 2/8/2018 End 2/8/2018	Total Depth (ft) 2	Logged By PDR Checked By IDY	Driller ESN Northwest	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data NA		Drilling Equipment Power Probe 9100P	
Easting (X) Northing (Y)		System Datum NA		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		12			GEI-B4-1.5-2 CA		CC	Approximately 2 inches of concrete cement			
								SM	Brown silty fine to coarse sand with fine gravel (moist)	NS	4.6	

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

Log of Boring GEI-B4

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-5
Sheet 1 of 1

Drilled Start 2/8/2018 End 2/8/2018	Total Depth (ft) 6	Logged By PDR Checked By IDY	Driller ESN Northwest	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data NA		Drilling Equipment Power Probe 9100P	
Easting (X) Northing (Y)		System Datum NA		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0							CC	Approximately 2 inches of concrete cement			
								SP	Gray fine to coarse sand with fine gravel (moist)			
			24					SM	Brown silty fine to medium sand with fine gravel (moist)			
						GEI-B5-1.5-2 CA				NS	2.9	
			24									
								SM	Brown silty fine to medium sand with fine gravel (moist to wet)			
						GEI-B5-3.5-4 CA				NS	4.8	
			24									
	5							SP	Brown fine to medium sand with trace silt (moist to wet)			
						GEI-B5-5.5-6 CA				NS	3.6	

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

Log of Boring GEI-B5

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-6
Sheet 1 of 1

Drilled Start 2/8/2018 End 2/8/2018	Total Depth (ft) 6	Logged By PDR Checked By IDY	Driller ESN Northwest	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data NA		Drilling Equipment Power Probe 9100P	
Easting (X) Northing (Y)		System Datum NA		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0							CC	Approximately 2 inches of concrete cement			
								SP				
								SM	Brown silty fine to coarse sand with fine gravel (moist)			
			24			GEI-B6-1.5-2 CA				NS	2.6	
			24									
						GEI-B6-3.5-4 CA				NS	12.2	
			24						Grades to more silt			
								SM	Brown silty fine sand (moist)			
	5					GEI-B6-5.5-6 CA				NS	6.4	

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

Log of Boring GEI-B6

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-7
Sheet 1 of 1

Drilled: Start 7/23/2021 End 7/23/2021	Total Depth (ft): 5	Logged By: PDR Checked By: IDY	Driller: Cascade Drilling	Drilling Method: Direct-Push	
Surface Elevation (ft) Vertical Datum: Undetermined		Hammer Data: N/A		Drilling Equipment: 54LT limited access rig	
Easting (X) Northing (Y):		System Datum:		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					CC	Approximately 3 inches of portland cement concrete			
								CR	Approximately 3 inches of gravel (overlying plastic sheet)			
								SP-SM	Gray fine sand with silt			
						GEI-B7-2-3 CA				NS	1.2	Hard drilling
	5					GEI-B7-4-5 CA		SP-SM	Gray fine sand with silt and occasional coarse sand and fine gravel	NS	<1	
									Boring terminated at approximately 5 feet below ground surface due to refusal			

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

Log of Boring B-7

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-04

Figure A-8
Sheet 1 of 1

Drilled	Start 7/23/2021	End 7/23/2021	Total Depth (ft) 4	Logged By PDR / Checked By IDY	Driller Cascade Drilling	Drilling Method Direct-Push
Surface Elevation (ft) / Vertical Datum	Undetermined		Hammer Data	N/A	Drilling Equipment	54LT limited access rig
Easting (X) / Northing (Y)			System Datum		Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					CC	Approximately 3 inches of portland cement concrete			
								CR	Approximately 3 inches of gravel (overlying plastic sheet)			
								SP	Gray fine to coarse sand			
								SP-SM	Gray fine to medium sand with silt, occasional medium to coarse sand and fine gravel (very dense)			
						GEI-B8-2-3 CA				NS	1.4	
			12			GEI-B8-3-4 CA		SM	Gray silty fine sand with occasional medium to coarse sand (very dense)	NS	1.1	
									Boring terminated at approximately 4 feet below ground surface due to refusal			

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

Log of Boring B-8

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-04

Figure A-9
Sheet 1 of 1

Drilled	Start 7/23/2021	End 7/23/2021	Total Depth (ft) 3	Logged By PDR / Checked By IDY	Driller Cascade Drilling	Drilling Method Direct-Push
Surface Elevation (ft) / Vertical Datum	Undetermined		Hammer Data	N/A	Drilling Equipment	54LT limited access rig
Easting (X) / Northing (Y)			System Datum		Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					CC	Approximately 3 inches of portland cement concrete			
								CR	Approximately 3 inches of gravel (overlying plastic sheet)			
								SP-SM	Gray fine to medium sand with silt			
						GEI-B9-1.5-2.5 CA		ML	Gray silt with fine sand	NS	1.0	
								SP-SM	Gray fine to coarse sand with silt (very dense)			

Boring terminated at approximately 3 feet below ground surface due to refusal

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

Log of Boring B-9

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-04

Figure A-10
Sheet 1 of 1

Drilled: Start 7/23/2021 End 7/23/2021	Total Depth (ft) 3.25	Logged By PDR Checked By IDY	Driller Cascade Drilling	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment 54LT limited access rig	
Easting (X) Northing (Y)		System Datum		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		39					CC	Approximately 3 inches of portland cement concrete			
								CR	Approximately 3 inches of gravel (overlying plastic sheet)			
								SP-SM	Gray fine sand with silt			
						GEI-B10-1.5-2.5 CA				NS	<1	
								SP-SM	Gray fine to coarse sand with silt			
								SP-SM	Light gray fine to corse sand with silt and occasional fine gravel (very dense)			
									Boring terminated at approximately 3¼ feet below ground surface due to refusal			

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

Log of Boring B-10

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-04

Figure A-11
Sheet 1 of 1

Drilled Start 7/23/2021 End 7/23/2021	Total Depth (ft) 5.5	Logged By PDR Checked By IDY	Driller Cascade Drilling	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment 54LT limited access rig	
Easting (X) Northing (Y)		System Datum		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					CC	Approximately 3 inches of portland cement concrete			
								CR	Approximately 3 inches of gravel (overlying plastic sheet)			
								SP	Gray fine sand with trace silt, occasional medium to coarse sand and fine gravel			
						GEI-B11-1.5-2.5 CA		SP-SM	Gray fine to coarse sand with silt	NS	2.8	
									Grades to more silt			
			30					SP	Gray fine sand			
						GEI-B11-4-5 CA				NS	2.4	
	5								Moist approximately 2 inches on top of silt			
								ML	Gray silt with fine sand			
									Boring terminated at approximately 5½ feet below ground surface due to refusal			

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

Log of Boring B-11

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-04

Figure A-12
Sheet 1 of 1

Drilled	Start 7/23/2021	End 7/23/2021	Total Depth (ft) 3	Logged By PDR / Checked By IDY	Driller Cascade Drilling	Drilling Method Direct-Push
Surface Elevation (ft) / Vertical Datum	Undetermined		Hammer Data	N/A	Drilling Equipment	54LT limited access rig
Easting (X) / Northing (Y)			System Datum		Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		12			GEI-B12-0-1 CA		CC	Approximately 3 inches of portland cement concrete	NS	1.1	
								CR	Approximately 3 inches of gravel (overlying plastic sheet)			
								SP	Gray-brown fine to coarse sand with trace silt			
			12						Small pieces of polyvinyl chloride in cuttings, no wire, water in pipe not under pressure			
									Abandoned boring at approximately 3 feet below ground surface			

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

Log of Boring B-12

GeoEngineers

Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-04

Figure A-13
Sheet 1 of 1

Drilled Start 7/23/2021 End 7/23/2021	Total Depth (ft) 5	Logged By PDR Checked By IDY	Driller Cascade Drilling	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment 54LT limited access rig	
Easting (X) Northing (Y)		System Datum		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		18					CC	Approximately 3 inches of portland cement concrete			
								CR	Approximately 3 inches of gravel (overlying plastic sheet)			
						GEI-B15-0.5-1.5 CA		SP	Gray fine sand with trace silt	NS	1.3	
								SP-SM	Gray fine sand with silt			
			24					ML	Gray silt			
						GEI-B15-4-5 CA		SM	Gray silty fine sand (very dense)	NS	1.3	
	5								Boring terminated at approximately 5 feet below ground surface due to refusal			

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

Log of Boring B-15

GeoEngineers

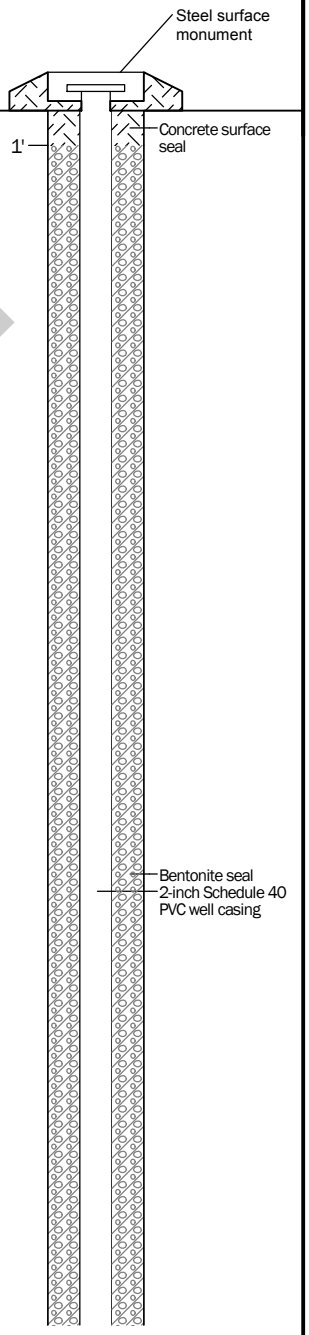
Project: Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-04

Figure A-14
Sheet 1 of 1

Drilled Start 3/1/2018 End 3/2/2018	Total Depth (ft) 70	Logged By PDR Checked By IDY	Driller Cascade Drilling	Drilling Method Sonic Drilling	
Hammer Data NA		Drilling Equipment Boart Longyear mini-sonic		A 2 (in) well was installed on 3/2/2018 to a depth of 70 (ft).	
Surface Elevation (ft) Vertical Datum Undetermined		Top of Casing Elevation (ft)		Groundwater Date Measured 3/2/2018	Depth to Water (ft) 19.20 Elevation (ft)
Easting (X) Northing (Y)		Horizontal Datum NA			
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0								AC	Approximately 6 inches of asphalt concrete pavement		
									NR	Air knife to 10 feet to clear utilities - no recovery		
	5											
	10					GEI-MW1-10-10.5			ML	Gray silt with fine sand, occasional coarse sand and fine gravel (dense, wet) (no free water)	NS	<1
									SM	Gray silty fine to medium sand with occasional fine gravel (dense, wet) (no free water)		
	15					GEI-MW1-14.5-15				Grades to fine to coarse sand with less silt	NS	<1
									SP	Gray fine to coarse sand with trace silt (dense, moist to wet)		
									SM	Gray silty fine sand (dense, moist)		
						GEI-MW1-18.5-19	▼		SP-SM	Gray fine to coarse sand with silt and occasional fine gravel (dense, moist)	NS	<1
	20		24							Perched groundwater encountered at approximately 19.2 feet		
			60						NR	No recovery, drilling becomes very hard		
	25					GEI-MW1-25-26			ML	Gray silt with fine to medium sand (soft, wet)	NS	<1
									SP-SM	Gray fine to coarse sand with silt (dense, wet)		
									SM	Gray silty fine to coarse sand and fine to coarse gravel (very dense, moist) (till)	NS	<1
	30		24			GEI-MW1-29-30			SM	Gray silty fine to coarse sand and fine gravel (very dense, moist) (till)	NS	<1
			72			GEI-MW1-32-33					NS	<1
	35											

WELL LOG



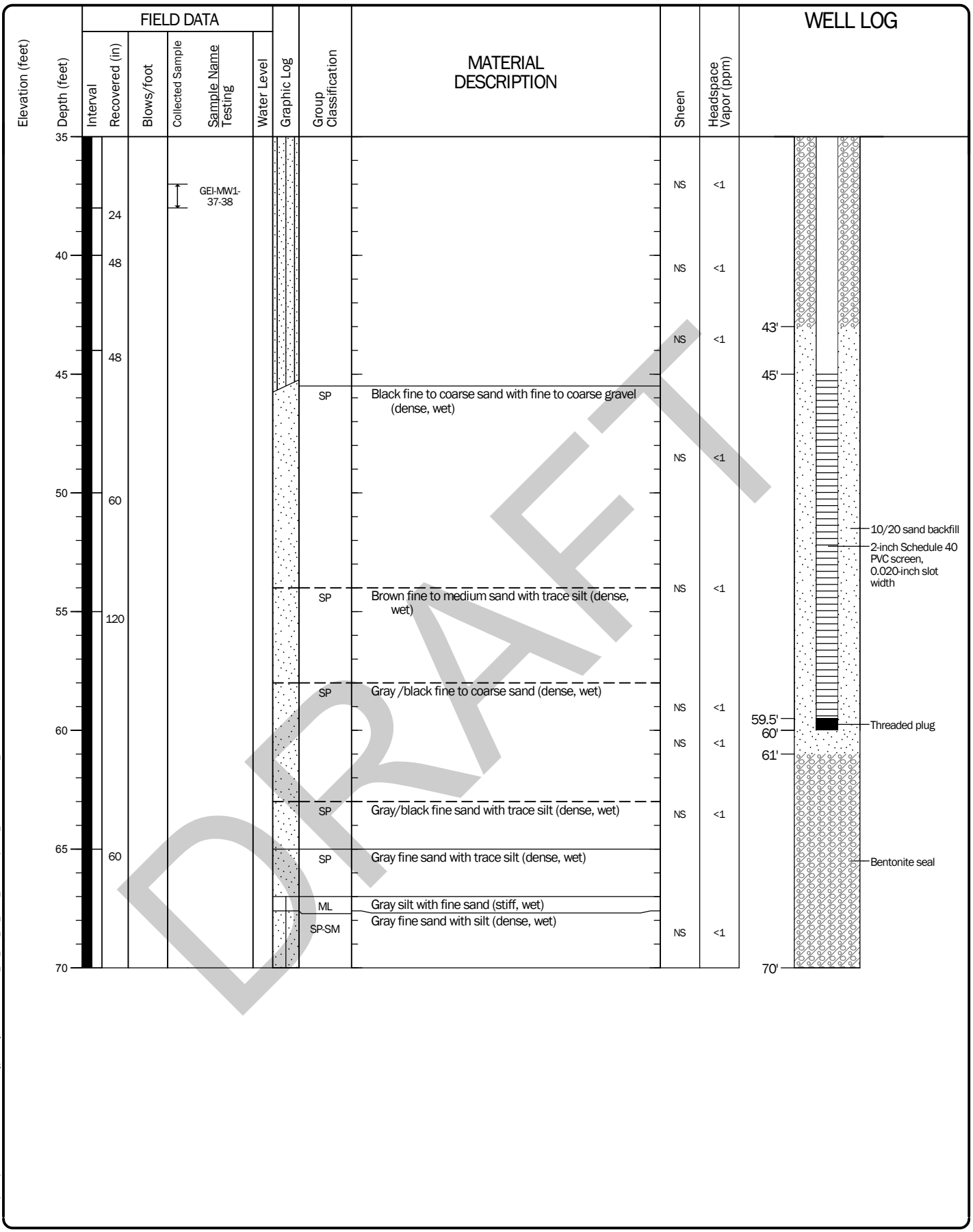
Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Monitoring Well GEI-MW1

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-15
Sheet 1 of 2



Log of Monitoring Well GEI-MW1 (continued)

GeoEngineers

Project: Bucklin Place Ultra Custom Cleaners
Project Location: Silverdale, Washington
Project Number: 22828-001-01

Figure A-15
Sheet 2 of 2

APPENDIX B
Laboratory Analytical Data Reports

APPENDIX B
LABORATORY ANALYTICAL DATA REPORTS

Analytical Methods

Chain-of-custody procedures were followed during the transport of the soil and groundwater samples to Fremont Analytical of Seattle, Washington, the analytical testing laboratory. The analytical results, analytical methods reference and laboratory quality control records are included in this appendix. The analytical results are summarized in the text and tables of this letter 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 method blanks, laboratory duplicates, and laboratory control samples 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 report. The laboratory compared each group of samples with the existing data quality goals.

Analytical Data Review Summary

No data quality exceptions were noted in the laboratory report during our review. Based on our data quality review, it is our opinion that the analytical data are of acceptable quality for their intended use in this letter report.

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

GeoEngineers - Tacoma
Ian Young
1101 S Fawcett Ave
Tacoma, WA 98401

RE: Bucklin UCC
Work Order Number: 2107386

August 03, 2021

Attention Ian Young:

Fremont Analytical, Inc. received 13 sample(s) on 7/26/2021 for the analyses presented in the following report.

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 - Tacoma
Project: Bucklin UCC
Work Order: 2107386

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2107386-001	GEI-B7-2-3	07/23/2021 8:05 AM	07/26/2021 12:28 PM
2107386-002	GEI-B7-4-5	07/23/2021 8:40 AM	07/26/2021 12:28 PM
2107386-003	GEI-B8-2-3	07/23/2021 9:45 AM	07/26/2021 12:28 PM
2107386-004	GEI-B8-3-4	07/23/2021 10:05 AM	07/26/2021 12:28 PM
2107386-005	GEI-B9-1.5-2.5	07/23/2021 10:15 AM	07/26/2021 12:28 PM
2107386-006	GEI-B10-1.5-2.5	07/23/2021 8:50 AM	07/26/2021 12:28 PM
2107386-007	GEI-B11-1.5-2.5	07/23/2021 11:25 AM	07/26/2021 12:28 PM
2107386-008	GEI-B11-4-5	07/23/2021 12:35 PM	07/26/2021 12:28 PM
2107386-009	GEI-B12-0-1	07/23/2021 12:50 PM	07/26/2021 12:28 PM
2107386-010	GEI-B15-0.5-1.5	07/23/2021 10:55 AM	07/26/2021 12:28 PM
2107386-011	GEI-B15-4-5	07/23/2021 11:05 AM	07/26/2021 12:28 PM
2107386-012	TB-210725		07/26/2021 12:28 PM
2107386-013	Trip Blank		07/26/2021 12:28 PM

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

Case Narrative

WO#: **2107386**
Date: **8/3/2021**

CLIENT: GeoEngineers - Tacoma
Project: Bucklin UCC

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

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 8:05:00 AM
Project: Bucklin UCC
Lab ID: 2107386-001
Matrix: Soil
Client Sample ID: **GEI-B7-2-3**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0141		mg/Kg-dry	1	7/30/2021 10:52:51 AM
1,1-Dichloroethene	ND	0.0565		mg/Kg-dry	1	7/30/2021 10:52:51 AM
trans-1,2-Dichloroethene	ND	0.0170		mg/Kg-dry	1	7/30/2021 10:52:51 AM
cis-1,2-Dichloroethene	ND	0.0141		mg/Kg-dry	1	7/30/2021 10:52:51 AM
Trichloroethene (TCE)	ND	0.0113		mg/Kg-dry	1	7/30/2021 10:52:51 AM
Tetrachloroethene (PCE)	0.0322	0.0226		mg/Kg-dry	1	7/30/2021 10:52:51 AM
Surr: Dibromofluoromethane	97.5	75.5 - 119		%Rec	1	7/30/2021 10:52:51 AM
Surr: Toluene-d8	93.2	82.4 - 115		%Rec	1	7/30/2021 10:52:51 AM
Surr: 1-Bromo-4-fluorobenzene	90.6	78.5 - 118		%Rec	1	7/30/2021 10:52:51 AM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	13.5	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 8:40:00 AM
Project: Bucklin UCC
Lab ID: 2107386-002
Matrix: Soil
Client Sample ID: **GEI-B7-4-5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0154		mg/Kg-dry	1	7/30/2021 11:53:06 AM
1,1-Dichloroethene	ND	0.0616		mg/Kg-dry	1	7/30/2021 11:53:06 AM
trans-1,2-Dichloroethene	ND	0.0185		mg/Kg-dry	1	7/30/2021 11:53:06 AM
cis-1,2-Dichloroethene	ND	0.0154		mg/Kg-dry	1	7/30/2021 11:53:06 AM
Trichloroethene (TCE)	ND	0.0123		mg/Kg-dry	1	7/30/2021 11:53:06 AM
Tetrachloroethene (PCE)	0.0903	0.0246		mg/Kg-dry	1	7/30/2021 11:53:06 AM
Surr: Dibromofluoromethane	96.7	75.5 - 119		%Rec	1	7/30/2021 11:53:06 AM
Surr: Toluene-d8	93.8	82.4 - 115		%Rec	1	7/30/2021 11:53:06 AM
Surr: 1-Bromo-4-fluorobenzene	91.2	78.5 - 118		%Rec	1	7/30/2021 11:53:06 AM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	10.1	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 9:45:00 AM
Project: Bucklin UCC
Lab ID: 2107386-003
Matrix: Soil
Client Sample ID: **GEI-B8-2-3**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0146		mg/Kg-dry	1	7/30/2021 12:23:13 PM
1,1-Dichloroethene	ND	0.0584		mg/Kg-dry	1	7/30/2021 12:23:13 PM
trans-1,2-Dichloroethene	ND	0.0175		mg/Kg-dry	1	7/30/2021 12:23:13 PM
cis-1,2-Dichloroethene	ND	0.0146		mg/Kg-dry	1	7/30/2021 12:23:13 PM
Trichloroethene (TCE)	ND	0.0117		mg/Kg-dry	1	7/30/2021 12:23:13 PM
Tetrachloroethene (PCE)	ND	0.0234		mg/Kg-dry	1	7/30/2021 12:23:13 PM
Surr: Dibromofluoromethane	96.9	75.5 - 119		%Rec	1	7/30/2021 12:23:13 PM
Surr: Toluene-d8	93.4	82.4 - 115		%Rec	1	7/30/2021 12:23:13 PM
Surr: 1-Bromo-4-fluorobenzene	91.4	78.5 - 118		%Rec	1	7/30/2021 12:23:13 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	7.59	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 10:05:00 AM
Project: Bucklin UCC
Lab ID: 2107386-004
Matrix: Soil
Client Sample ID: **GEI-B8-3-4**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0178		mg/Kg-dry	1	7/30/2021 12:53:20 PM
1,1-Dichloroethene	ND	0.0713		mg/Kg-dry	1	7/30/2021 12:53:20 PM
trans-1,2-Dichloroethene	ND	0.0214		mg/Kg-dry	1	7/30/2021 12:53:20 PM
cis-1,2-Dichloroethene	ND	0.0178		mg/Kg-dry	1	7/30/2021 12:53:20 PM
Trichloroethene (TCE)	ND	0.0143		mg/Kg-dry	1	7/30/2021 12:53:20 PM
Tetrachloroethene (PCE)	ND	0.0285		mg/Kg-dry	1	7/30/2021 12:53:20 PM
Surr: Dibromofluoromethane	95.4	75.5 - 119		%Rec	1	7/30/2021 12:53:20 PM
Surr: Toluene-d8	92.6	82.4 - 115		%Rec	1	7/30/2021 12:53:20 PM
Surr: 1-Bromo-4-fluorobenzene	90.0	78.5 - 118		%Rec	1	7/30/2021 12:53:20 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	7.56	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 10:15:00 AM
Project: Bucklin UCC
Lab ID: 2107386-005
Matrix: Soil
Client Sample ID: **GEI-B9-1.5-2.5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0174		mg/Kg-dry	1	7/30/2021 1:23:28 PM
1,1-Dichloroethene	ND	0.0694		mg/Kg-dry	1	7/30/2021 1:23:28 PM
trans-1,2-Dichloroethene	ND	0.0208		mg/Kg-dry	1	7/30/2021 1:23:28 PM
cis-1,2-Dichloroethene	ND	0.0174		mg/Kg-dry	1	7/30/2021 1:23:28 PM
Trichloroethene (TCE)	ND	0.0139		mg/Kg-dry	1	7/30/2021 1:23:28 PM
Tetrachloroethene (PCE)	0.0378	0.0278		mg/Kg-dry	1	7/30/2021 1:23:28 PM
Surr: Dibromofluoromethane	95.6	75.5 - 119		%Rec	1	7/30/2021 1:23:28 PM
Surr: Toluene-d8	93.8	82.4 - 115		%Rec	1	7/30/2021 1:23:28 PM
Surr: 1-Bromo-4-fluorobenzene	91.6	78.5 - 118		%Rec	1	7/30/2021 1:23:28 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	16.7	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 8:50:00 AM
Project: Bucklin UCC
Lab ID: 2107386-006
Matrix: Soil
Client Sample ID: **GEI-B10-1.5-2.5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0143		mg/Kg-dry	1	7/30/2021 1:53:37 PM
1,1-Dichloroethene	ND	0.0570		mg/Kg-dry	1	7/30/2021 1:53:37 PM
trans-1,2-Dichloroethene	ND	0.0171		mg/Kg-dry	1	7/30/2021 1:53:37 PM
cis-1,2-Dichloroethene	ND	0.0143		mg/Kg-dry	1	7/30/2021 1:53:37 PM
Trichloroethene (TCE)	ND	0.0114		mg/Kg-dry	1	7/30/2021 1:53:37 PM
Tetrachloroethene (PCE)	0.0355	0.0228		mg/Kg-dry	1	7/30/2021 1:53:37 PM
Surr: Dibromofluoromethane	95.7	75.5 - 119		%Rec	1	7/30/2021 1:53:37 PM
Surr: Toluene-d8	92.3	82.4 - 115		%Rec	1	7/30/2021 1:53:37 PM
Surr: 1-Bromo-4-fluorobenzene	90.4	78.5 - 118		%Rec	1	7/30/2021 1:53:37 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	6.91	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 11:25:00 AM
Project: Bucklin UCC
Lab ID: 2107386-007
Matrix: Soil
Client Sample ID: **GEI-B11-1.5-2.5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0172		mg/Kg-dry	1	7/30/2021 2:23:44 PM
1,1-Dichloroethene	ND	0.0689		mg/Kg-dry	1	7/30/2021 2:23:44 PM
trans-1,2-Dichloroethene	ND	0.0207		mg/Kg-dry	1	7/30/2021 2:23:44 PM
cis-1,2-Dichloroethene	ND	0.0172		mg/Kg-dry	1	7/30/2021 2:23:44 PM
Trichloroethene (TCE)	ND	0.0138		mg/Kg-dry	1	7/30/2021 2:23:44 PM
Tetrachloroethene (PCE)	ND	0.0276		mg/Kg-dry	1	7/30/2021 2:23:44 PM
Surr: Dibromofluoromethane	96.1	75.5 - 119		%Rec	1	7/30/2021 2:23:44 PM
Surr: Toluene-d8	92.8	82.4 - 115		%Rec	1	7/30/2021 2:23:44 PM
Surr: 1-Bromo-4-fluorobenzene	90.0	78.5 - 118		%Rec	1	7/30/2021 2:23:44 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	10.6	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 12:35:00 PM
Project: Bucklin UCC
Lab ID: 2107386-008
Matrix: Soil
Client Sample ID: **GEI-B11-4-5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0167		mg/Kg-dry	1	7/30/2021 2:53:51 PM
1,1-Dichloroethene	ND	0.0666		mg/Kg-dry	1	7/30/2021 2:53:51 PM
trans-1,2-Dichloroethene	ND	0.0200		mg/Kg-dry	1	7/30/2021 2:53:51 PM
cis-1,2-Dichloroethene	ND	0.0167		mg/Kg-dry	1	7/30/2021 2:53:51 PM
Trichloroethene (TCE)	ND	0.0133		mg/Kg-dry	1	7/30/2021 2:53:51 PM
Tetrachloroethene (PCE)	ND	0.0267		mg/Kg-dry	1	7/30/2021 2:53:51 PM
Surr: Dibromofluoromethane	95.4	75.5 - 119		%Rec	1	7/30/2021 2:53:51 PM
Surr: Toluene-d8	91.5	82.4 - 115		%Rec	1	7/30/2021 2:53:51 PM
Surr: 1-Bromo-4-fluorobenzene	90.0	78.5 - 118		%Rec	1	7/30/2021 2:53:51 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	16.8	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 12:50:00 PM
Project: Bucklin UCC
Lab ID: 2107386-009
Matrix: Soil
Client Sample ID: **GEI-B12-0-1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0153		mg/Kg-dry	1	7/30/2021 3:23:57 PM
1,1-Dichloroethene	ND	0.0613		mg/Kg-dry	1	7/30/2021 3:23:57 PM
trans-1,2-Dichloroethene	ND	0.0184		mg/Kg-dry	1	7/30/2021 3:23:57 PM
cis-1,2-Dichloroethene	ND	0.0153		mg/Kg-dry	1	7/30/2021 3:23:57 PM
Trichloroethene (TCE)	ND	0.0123		mg/Kg-dry	1	7/30/2021 3:23:57 PM
Tetrachloroethene (PCE)	ND	0.0245		mg/Kg-dry	1	7/30/2021 3:23:57 PM
Surr: Dibromofluoromethane	94.4	75.5 - 119		%Rec	1	7/30/2021 3:23:57 PM
Surr: Toluene-d8	92.4	82.4 - 115		%Rec	1	7/30/2021 3:23:57 PM
Surr: 1-Bromo-4-fluorobenzene	90.0	78.5 - 118		%Rec	1	7/30/2021 3:23:57 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	7.62	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 10:55:00 AM
Project: Bucklin UCC
Lab ID: 2107386-010
Matrix: Soil
Client Sample ID: **GEI-B15-0.5-1.5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0140		mg/Kg-dry	1	7/30/2021 3:54:04 PM
1,1-Dichloroethene	ND	0.0558		mg/Kg-dry	1	7/30/2021 3:54:04 PM
trans-1,2-Dichloroethene	ND	0.0167		mg/Kg-dry	1	7/30/2021 3:54:04 PM
cis-1,2-Dichloroethene	ND	0.0140		mg/Kg-dry	1	7/30/2021 3:54:04 PM
Trichloroethene (TCE)	ND	0.0112		mg/Kg-dry	1	7/30/2021 3:54:04 PM
Tetrachloroethene (PCE)	ND	0.0223		mg/Kg-dry	1	7/30/2021 3:54:04 PM
Surr: Dibromofluoromethane	93.7	75.5 - 119		%Rec	1	7/30/2021 3:54:04 PM
Surr: Toluene-d8	91.1	82.4 - 115		%Rec	1	7/30/2021 3:54:04 PM
Surr: 1-Bromo-4-fluorobenzene	89.4	78.5 - 118		%Rec	1	7/30/2021 3:54:04 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	6.23	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Collection Date: 7/23/2021 11:05:00 AM
Project: Bucklin UCC
Lab ID: 2107386-011
Matrix: Soil
Client Sample ID: **GEI-B15-4-5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
Vinyl chloride	ND	0.0148		mg/Kg-dry	1	7/30/2021 4:24:11 PM
1,1-Dichloroethene	ND	0.0592		mg/Kg-dry	1	7/30/2021 4:24:11 PM
trans-1,2-Dichloroethene	ND	0.0178		mg/Kg-dry	1	7/30/2021 4:24:11 PM
cis-1,2-Dichloroethene	ND	0.0148		mg/Kg-dry	1	7/30/2021 4:24:11 PM
Trichloroethene (TCE)	ND	0.0118		mg/Kg-dry	1	7/30/2021 4:24:11 PM
Tetrachloroethene (PCE)	ND	0.0237		mg/Kg-dry	1	7/30/2021 4:24:11 PM
Surr: Dibromofluoromethane	94.1	75.5 - 119		%Rec	1	7/30/2021 4:24:11 PM
Surr: Toluene-d8	91.6	82.4 - 115		%Rec	1	7/30/2021 4:24:11 PM
Surr: 1-Bromo-4-fluorobenzene	88.3	78.5 - 118		%Rec	1	7/30/2021 4:24:11 PM
Sample Moisture (Percent Moisture)				Batch ID: R68920		Analyst: KJ
Percent Moisture	11.3	0.500		wt%	1	7/30/2021 11:52:47 AM

Analytical Report

Work Order: **2107386**
Date Reported: **8/3/2021**

Client: GeoEngineers - Tacoma
Project: Bucklin UCC
Lab ID: 2107386-012
Client Sample ID: **TB-210725**

Collection Date:
Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33180		Analyst: KT
1,1-Dichloroethene	ND	0.100		mg/Kg	1	7/30/2021 10:22:45 AM
Chloroform	ND	0.0250		mg/Kg	1	7/30/2021 10:22:45 AM
Toluene	ND	0.0300		mg/Kg	1	7/30/2021 10:22:45 AM
Trans-1,3-Dichloropropylene	ND	0.0500		mg/Kg	1	7/30/2021 10:22:45 AM
tert-Butylbenzene	ND	0.0300		mg/Kg	1	7/30/2021 10:22:45 AM
sec-Butylbenzene	ND	0.0300		mg/Kg	1	7/30/2021 10:22:45 AM
IS: Fluorobenzene	ND	0		%REC	1	7/30/2021 10:22:45 AM
IS: Chlorobenzene-d5	ND	0		%REC	1	7/30/2021 10:22:45 AM
IS: 1,4-Dichlorobenzene-d4	ND	0		%REC	1	7/30/2021 10:22:45 AM

Work Order: 2107386
CLIENT: GeoEngineers - Tacoma
Project: Bucklin UCC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-33180** SampType: **LCS** Units: **mg/Kg** Prep Date: **7/30/2021** RunNo: **68980**
Client ID: **LCSS** Batch ID: **33180** Analysis Date: **7/30/2021** SeqNo: **1396020**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.03	0.0250	1.000	0	103	64.3	140				
1,1-Dichloroethene	0.939	0.100	1.000	0	93.9	66.7	134				
trans-1,2-Dichloroethene	0.942	0.0300	1.000	0	94.2	81.6	120				
cis-1,2-Dichloroethene	0.917	0.0250	1.000	0	91.7	80.4	117				
Trichloroethene (TCE)	0.964	0.0200	1.000	0	96.4	83.7	117				
Tetrachloroethene (PCE)	1.06	0.0400	1.000	0	106	84.7	119				
Surr: Dibromofluoromethane	1.21		1.250		97.0	75.5	119				
Surr: Toluene-d8	1.20		1.250		95.8	82.4	115				
Surr: 1-Bromo-4-fluorobenzene	1.34		1.250		108	78.5	118				

Sample ID: **MB-33180** SampType: **MBLK** Units: **mg/Kg** Prep Date: **7/30/2021** RunNo: **68980**
Client ID: **MBLKS** Batch ID: **33180** Analysis Date: **7/30/2021** SeqNo: **1396019**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0250									
1,1-Dichloroethene	ND	0.100									
trans-1,2-Dichloroethene	ND	0.0300									
cis-1,2-Dichloroethene	ND	0.0250									
Trichloroethene (TCE)	ND	0.0200									
Tetrachloroethene (PCE)	ND	0.0400									
Surr: Dibromofluoromethane	1.20		1.250		96.0	75.5	119				
Surr: Toluene-d8	1.17		1.250		94.0	82.4	115				
Surr: 1-Bromo-4-fluorobenzene	1.13		1.250		90.6	78.5	118				

Sample ID: **2107386-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **7/30/2021** RunNo: **68980**
Client ID: **GEI-B7-2-3** Batch ID: **33180** Analysis Date: **7/30/2021** SeqNo: **1396001**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0141						0		30	

Work Order: 2107386
CLIENT: GeoEngineers - Tacoma
Project: Bucklin UCC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2107386-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **7/30/2021** RunNo: **68980**
Client ID: **GEI-B7-2-3** Batch ID: **33180** Analysis Date: **7/30/2021** SeqNo: **1396001**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.0565						0		30	
trans-1,2-Dichloroethene	ND	0.0170						0		30	
cis-1,2-Dichloroethene	ND	0.0141						0		30	
Trichloroethene (TCE)	ND	0.0113						0		30	
Tetrachloroethene (PCE)	0.0309	0.0226						0.03219	4.09	30	
Surr: Dibromofluoromethane	0.695		0.7069		98.3	75.5	119		0		
Surr: Toluene-d8	0.657		0.7069		92.9	82.4	115		0		
Surr: 1-Bromo-4-fluorobenzene	0.646		0.7069		91.4	78.5	118		0		

Sample ID: **2107477-001BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **7/30/2021** RunNo: **68980**
Client ID: **BATCH** Batch ID: **33180** Analysis Date: **7/30/2021** SeqNo: **1396016**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0289						0		30	
1,1-Dichloroethene	ND	0.116						0		30	
trans-1,2-Dichloroethene	ND	0.0347						0		30	
cis-1,2-Dichloroethene	ND	0.0289						0		30	
Trichloroethene (TCE)	ND	0.0231						0		30	
Tetrachloroethene (PCE)	ND	0.0463						0		30	
Surr: Dibromofluoromethane	1.43		1.445		98.8	75.5	119		0		
Surr: Toluene-d8	1.34		1.445		93.0	82.4	115		0		
Surr: 1-Bromo-4-fluorobenzene	1.33		1.445		91.8	78.5	118		0		

Sample ID: **2107386-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **7/30/2021** RunNo: **68980**
Client ID: **GEI-B7-4-5** Batch ID: **33180** Analysis Date: **7/30/2021** SeqNo: **1396003**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.483	0.0154	0.6160	0	78.4	50.3	134				
1,1-Dichloroethene	0.624	0.0616	0.6160	0	101	62.2	138				

Work Order: 2107386
CLIENT: GeoEngineers - Tacoma
Project: Bucklin UCC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2107386-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **7/30/2021** RunNo: **68980**
Client ID: **GEI-B7-4-5** Batch ID: **33180** Analysis Date: **7/30/2021** SeqNo: **1396003**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	0.606	0.0185	0.6160	0	98.4	70.2	132				
cis-1,2-Dichloroethene	0.608	0.0154	0.6160	0	98.8	79.6	125				
Trichloroethene (TCE)	0.677	0.0123	0.6160	0	110	78.9	132				
Tetrachloroethene (PCE)	0.809	0.0246	0.6160	0.09025	117	77.7	131				
Surr: Dibromofluoromethane	0.724		0.7700		94.0	75.5	119				
Surr: Toluene-d8	0.741		0.7700		96.2	82.4	115				
Surr: 1-Bromo-4-fluorobenzene	0.836		0.7700		109	78.5	118				

Sample Log-In Check List

Client Name:	**GEIT**	Work Order Number:	**2107386**
Logged by:	**Gabrielle Coeuille**	Date Received:	**7/26/2021 12:28:00 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: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Sample 1	5.7

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

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

Chain of Custody Record & Laboratory Services Agreement

Date: 7/23/21 | Page: 1 of: 2 | Laboratory Project No (internal): 2107386

Project Name: Bocklin Place | Special Remarks:

Project No: 22828-001-04

Client: GeoEngineers | Collected by: Paul Robinette

Address: 1101 S. Fawcett Ave | Location: Silverdale, WA

City, State, Zip: Tacoma, WA 98402 | Report To (PM): Ian Young

Telephone: 253-383-4940 | Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Fax: 253-383-4923 | PM Email: iyoung@geoengineers.com

	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	GEI-B7-2-3	7/23/21	805	S	3	X											
2	GEI-B7-4-5	7/23/21	840	S	3	X											
3	GEI-B8-2-3	"	945	"	3	X											
4	GEI-B8-3-4		1005		3	X											
5	GEI-B9-1.5-2.5		1015		3	X											
6	GEI-B10-1.5 2.5		850		3	X											
7	GEI-B11-1.5-2.5		1125		3	X											
8	GEI-B11-4-5		1235		3	X											
9	GEI-B12-0-1		1250		3	X											
10	GEI-B15-25 1.5	↓	1055	↓	3	X											

*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)	Print Name	Date/Time
x Paul Robinette	Paul Robinette	7/26/21 11:02	x	Markus	7-26-21 11:02
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x Catlin Baker	Catlin Baker	7/26/21 12:20

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

Chain of Custody Record & Laboratory Services Agreement

Date: 7/23/21 Page: 2 of: 2

Laboratory Project No (internal): 2107386

Project Name: Bocklin Place

Special Remarks:

Client: GeoEngineers

Project No: 22828-001-04

Address: 1101 S Fawcett Ave

Collected by: Paul Robicette

City, State, Zip: Tacoma, WA 98402

Location: Silverdale, WA

Telephone: 253.383.4940

Report To (PM): Ian Young

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

Fax: 253.383.4923

PM Email: iyoung@geoengineers.com

	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	GEI-B15-4-5	7/23/21	1105	S	3	X											
2	TB-210723				2	X											
3																	
4																	
5																	
6																	
7																	
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 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)	Print Name	Date/Time
x [signature]	Paul Robicette	7/26/21 | 11:02	x [signature]	Marcus	7-26-21 | 11:02
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x Caitlin Baker	CAITLIN BAKER	7/26/21 | 2:28

Fremont Analytical

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

Chain of Custody Record & Laboratory Services Agreement

Date: 7/23/21 Page: 1 of: 2

Laboratory Project No (internal): 2107386

Project Name: ~~Bucklin Place~~ Bucklin UCC

Special Remarks:
Edits per IY 7/27/21- gac

Project No: 22828-001-04

Client: GeoEngineers

Collected by: Paul Robinette

Address: 1101 S. Fawcett Ave

Location: Silverdale, WA

City, State, Zip: Tacoma, WA 98402

Report To (PM): Ian Young

Telephone: 253-383-4940

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

Fax: 253-383-4923

PM Email: iyoung@geoengineers.com

	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	GEI-B7-2-3	7/23/21	805	S	3	X											PCE and Break
2	GEI-B7-4-5	7/23/21	840	S	3	X											
3	GEI-B8-2-3	"	945	"	3	X											
4	GEI-B8-3-4	"	1005	"	3	X											
5	GEI-B9-1.5-2.5	"	1015	"	3	X											
6	GEI-B10-1.5 2.5	"	850	"	3	X											
7	GEI-B11-1.5-2.5	"	1125	"	3	X											
8	GEI-B11-4-5	"	1235	"	3	X											
9	GEI-B12-0-1	"	1250	"	3	X											
10	GEI-B15-2.5 1.5	"	1055	"	3	X											

*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)	Print Name	Date/Time
x	Paul Robinette	7/26/21 11:02	x	Markus	7-26-21 11:02
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x Catlin Baker	CATLIN BAKER	7/26/21 12:28

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

Chain of Custody Record & Laboratory Services Agreement

Date: 7/23/21 Page: 2 of: 2

Laboratory Project No (internal): 2107386

Project Name: Bocklin Place

Special Remarks:

Client: GeoEngineers

Project No: 22828-001-04

Address: 1101 S Fawcett Ave

Collected by: Paul Robicette

City, State, Zip: Tacoma, WA 98402

Location: Silverdale, WA

Telephone: 253.383.4940

Report To (PM): Jen Young

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

Fax: 253.383.4923

PM Email: jyoung@geoengineers.com

	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	GEI-B15-4-5	7/23/21	1105	S	3	X											PCE and Break
2	TB-210723				2	X											
3																	
4																	
5																	
6																	
7																	
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

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Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x [signature]	Paul Robicette	7/26/21 11:02	x [signature]	Marcus	7-26-21 11:02
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x Caitlin Baker	CAITLIN BAKER	7/26/21 12:28

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

GeoEngineers
Ian Young
2101 4th Ave, Suite 950
Seattle, WA 98121

RE: Bucklin UCC
Work Order Number: 2108097

August 12, 2021

Attention Ian Young:

Fremont Analytical, Inc. received 4 sample(s) on 8/6/2021 for the analyses presented in the following report.

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

Date: *08/12/2021*

CLIENT: GeoEngineers
Project: Bucklin UCC
Work Order: 2108097

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2108097-001	EX-UT1-3-4	08/05/2021 1:15 PM	08/06/2021 9:53 AM
2108097-002	EX-UT2-1.5-2	08/05/2021 1:30 PM	08/06/2021 9:53 AM
2108097-003	EX-UT2-3-4	08/05/2021 1:45 PM	08/06/2021 9:53 AM
2108097-004	Trip Blank	08/04/2021 3:26 PM	08/06/2021 9:53 AM

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

Case Narrative

WO#: **2108097**
Date: **8/12/2021**

CLIENT: GeoEngineers
Project: Bucklin UCC

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

Analytical Report

Work Order: **2108097**
Date Reported: **8/12/2021**

Client: GeoEngineers
Project: Bucklin UCC
Lab ID: 2108097-001
Client Sample ID: **EX-UT1-3-4**

Collection Date: 8/5/2021 1:15:00 PM
Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33300		Analyst: KT
Vinyl chloride	ND	0.0228		mg/Kg-dry	1	8/10/2021 8:25:44 PM
1,1-Dichloroethene	ND	0.0912		mg/Kg-dry	1	8/10/2021 8:25:44 PM
trans-1,2-Dichloroethene	ND	0.0274		mg/Kg-dry	1	8/10/2021 8:25:44 PM
cis-1,2-Dichloroethene	ND	0.0228		mg/Kg-dry	1	8/10/2021 8:25:44 PM
Trichloroethene (TCE)	ND	0.0182		mg/Kg-dry	1	8/10/2021 8:25:44 PM
Tetrachloroethene (PCE)	ND	0.0365		mg/Kg-dry	1	8/10/2021 8:25:44 PM
Surr: Dibromofluoromethane	97.1	75.5 - 119		%Rec	1	8/10/2021 8:25:44 PM
Surr: Toluene-d8	96.7	82.4 - 115		%Rec	1	8/10/2021 8:25:44 PM
Surr: 1-Bromo-4-fluorobenzene	89.3	78.5 - 118		%Rec	1	8/10/2021 8:25:44 PM
Sample Moisture (Percent Moisture)				Batch ID: R69167		Analyst: ALB
Percent Moisture	8.14	0.500		wt%	1	8/11/2021 11:34:33 AM

Analytical Report

Work Order: **2108097**
Date Reported: **8/12/2021**

Client: GeoEngineers
Project: Bucklin UCC
Lab ID: 2108097-002
Client Sample ID: **EX-UT2-1.5-2**

Collection Date: 8/5/2021 1:30:00 PM
Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33300		Analyst: KT
Vinyl chloride	ND	0.0236		mg/Kg-dry	1	8/10/2021 8:55:51 PM
1,1-Dichloroethene	ND	0.0943		mg/Kg-dry	1	8/10/2021 8:55:51 PM
trans-1,2-Dichloroethene	ND	0.0283		mg/Kg-dry	1	8/10/2021 8:55:51 PM
cis-1,2-Dichloroethene	ND	0.0236		mg/Kg-dry	1	8/10/2021 8:55:51 PM
Trichloroethene (TCE)	ND	0.0189		mg/Kg-dry	1	8/10/2021 8:55:51 PM
Tetrachloroethene (PCE)	ND	0.0377		mg/Kg-dry	1	8/10/2021 8:55:51 PM
Surr: Dibromofluoromethane	96.2	75.5 - 119		%Rec	1	8/10/2021 8:55:51 PM
Surr: Toluene-d8	96.6	82.4 - 115		%Rec	1	8/10/2021 8:55:51 PM
Surr: 1-Bromo-4-fluorobenzene	88.1	78.5 - 118		%Rec	1	8/10/2021 8:55:51 PM
Sample Moisture (Percent Moisture)				Batch ID: R69167		Analyst: ALB
Percent Moisture	7.37	0.500		wt%	1	8/11/2021 11:34:33 AM

Analytical Report

Work Order: **2108097**
Date Reported: **8/12/2021**

Client: GeoEngineers
Project: Bucklin UCC
Lab ID: 2108097-003
Client Sample ID: **EX-UT2-3-4**

Collection Date: 8/5/2021 1:45:00 PM
Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 33300		Analyst: KT
Vinyl chloride	ND	0.0249		mg/Kg-dry	1	8/10/2021 9:25:58 PM
1,1-Dichloroethene	ND	0.0998		mg/Kg-dry	1	8/10/2021 9:25:58 PM
trans-1,2-Dichloroethene	ND	0.0299		mg/Kg-dry	1	8/10/2021 9:25:58 PM
cis-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	8/10/2021 9:25:58 PM
Trichloroethene (TCE)	ND	0.0200		mg/Kg-dry	1	8/10/2021 9:25:58 PM
Tetrachloroethene (PCE)	ND	0.0399		mg/Kg-dry	1	8/10/2021 9:25:58 PM
Surr: Dibromofluoromethane	98.8	75.5 - 119		%Rec	1	8/10/2021 9:25:58 PM
Surr: Toluene-d8	97.7	82.4 - 115		%Rec	1	8/10/2021 9:25:58 PM
Surr: 1-Bromo-4-fluorobenzene	88.6	78.5 - 118		%Rec	1	8/10/2021 9:25:58 PM
Sample Moisture (Percent Moisture)				Batch ID: R69167		Analyst: ALB
Percent Moisture	10.5	0.500		wt%	1	8/11/2021 11:34:33 AM

Work Order: 2108097
CLIENT: GeoEngineers
Project: Bucklin UCC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-33300**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **8/10/2021**	RunNo: **69189**
Client ID: **LCSS**	Batch ID: **33300**		Analysis Date: **8/10/2021**	SeqNo: **1401125**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.986	0.0250	1.000	0	98.6	80	120				
1,1-Dichloroethene	0.921	0.100	1.000	0	92.1	80	120				
trans-1,2-Dichloroethene	0.884	0.0300	1.000	0	88.4	80	120				
cis-1,2-Dichloroethene	0.900	0.0250	1.000	0	90.0	80	120				
Trichloroethene (TCE)	1.02	0.0200	1.000	0	102	80	120				
Tetrachloroethene (PCE)	1.01	0.0400	1.000	0	101	80	120				
Surr: Dibromofluoromethane	1.11		1.250		88.6	75.5	120				
Surr: Toluene-d8	1.22		1.250		97.6	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.35		1.250		108	78.5	120				

Sample ID: **MB-33300**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **8/10/2021**	RunNo: **69189**
Client ID: **MBLKS**	Batch ID: **33300**		Analysis Date: **8/10/2021**	SeqNo: **1401124**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0250									
1,1-Dichloroethene	ND	0.100									
trans-1,2-Dichloroethene	ND	0.0300									
cis-1,2-Dichloroethene	ND	0.0250									
Trichloroethene (TCE)	ND	0.0200									
Tetrachloroethene (PCE)	ND	0.0400									
Surr: Dibromofluoromethane	1.18		1.250		94.4	75.5	119				
Surr: Toluene-d8	1.21		1.250		96.6	82.4	115				
Surr: 1-Bromo-4-fluorobenzene	1.11		1.250		88.9	78.5	118				

Sample ID: **2108075-001BDUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **8/10/2021**	RunNo: **69189**
Client ID: **BATCH**	Batch ID: **33300**		Analysis Date: **8/10/2021**	SeqNo: **1401116**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0161						0		30	

Work Order: 2108097
CLIENT: GeoEngineers
Project: Bucklin UCC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2108075-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **8/10/2021** RunNo: **69189**
Client ID: **BATCH** Batch ID: **33300** Analysis Date: **8/10/2021** SeqNo: **1401116**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.0645						0		30	
trans-1,2-Dichloroethene	ND	0.0194						0		30	
cis-1,2-Dichloroethene	ND	0.0161						0		30	
Trichloroethene (TCE)	ND	0.0129						0		30	
Tetrachloroethene (PCE)	ND	0.0258						0		30	
Surr: Dibromofluoromethane	0.771		0.8067		95.5	75.5	119		0		
Surr: Toluene-d8	0.767		0.8067		95.1	82.4	115		0		
Surr: 1-Bromo-4-fluorobenzene	1.87		2.420		77.4	78.5	118		0		S

NOTES:
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: **2108097-003BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **8/10/2021** RunNo: **69189**
Client ID: **EX-UT2-3-4** Batch ID: **33300** Analysis Date: **8/10/2021** SeqNo: **1401121**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.811	0.0249	0.9975	0	81.3	50.3	134				
1,1-Dichloroethene	0.923	0.0998	0.9975	0	92.5	62.2	138				
trans-1,2-Dichloroethene	0.941	0.0299	0.9975	0	94.4	70.2	132				
cis-1,2-Dichloroethene	0.967	0.0249	0.9975	0	97.0	79.6	125				
Trichloroethene (TCE)	1.02	0.0200	0.9975	0	102	78.9	132				
Tetrachloroethene (PCE)	1.04	0.0399	0.9975	0.01617	103	77.7	131				
Surr: Dibromofluoromethane	1.19		1.247		95.7	75.5	119				
Surr: Toluene-d8	1.28		1.247		102	82.4	115				
Surr: 1-Bromo-4-fluorobenzene	1.35		1.247		108	78.5	118				

Sample Log-In Check List

Client Name:	**GEI**	Work Order Number:	**2108097**
Logged by:	**Clare Griggs**	Date Received:	**8/6/2021 9:53:00 AM**

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: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Sample	5.0

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

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

Chain of Custody Record & Laboratory Services Agreement

Date: 8/5/21 Page: 1 of: 1

Laboratory Project No (internal): 2108097

Special Remarks:

Project Name: Buchlin UCC

Project No: 22828-001-04

Client: GeoEngineers Inc.

Address: 2101 4th Ave, Suite 950

City, State, Zip: Seattle WA 98121

Telephone: 206.518-5142

Fax:

Collected by: Ian Young

Location: Silverdale WA

Report To (PM): Ian Young

PM Email: iyoung@geoengineers.com

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	EX-UT1-3-4	8/5/21	1315	S	3	X												Focused chlorinated solvents PCE→TCE→DCEs→VC Per quote
2	EX-UT2-1.5-2	↓	1330	S	↓	X												
3	EX-UT2-3-4	↓	1345	S	↓	X												
4																		
5																		
6																		
7																		
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 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)	Print Name	Date/Time
x	Ian Young	8/6/21 @ 0950	x	Justine Mantz	Justine Mantz 8/6 9:53
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		