SoundEarth Strategies, Inc.
2811 Fairview Avenue East, Suite 2000
Seattle, Washington 98102

December 16, 2019

Mr. Daniel Bretzke
City of Seattle
Department of Finance and Administrative Services
700 5th Avenue, Suite 5200
Seattle, Washington 98104

SUBJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT
UW Laundry Property
2901 27th Avenue South
Seattle, Washington
Project Number: 0987-022

Dear Mr. Bretzke:

SoundEarth Strategies, Inc. (SoundEarth) has prepared this letter report to present the findings and results of the Phase II Environmental Site Assessment (ESA) conducted at the UW Laundry Property, located at 2901 27th Avenue South in Seattle, Washington (the Property). The purpose of the subsurface investigation was to assess the potential for subsurface environmental impacts that may have resulted from recognized environmental conditions (RECs) identified in the Phase I ESA conducted for the Property by SoundEarth in October 2019.

The subsurface investigation was conducted in general accordance with the proposal prepared by SoundEarth dated October 18, 2019. This letter report summarizes the Phase II ESA field activities and results and provides SoundEarth's conclusions regarding the nature and extent of soil and groundwater impacts at the Property.

PROPERTY CONDITION

The Property location is shown on Figure 1. Figure 2 depicts a plan view/layout of the Property. The Property consists of three tax parcels (King County Parcel Nos. 308500-2100, 713830-0015, and 713880-0025; Parcels A through C, respectively) that cover a total of approximately 179,092 square feet (4.11 acres) of land. Parcel A is currently occupied by a 1957-vintage, two-story building (Building 1) that encloses approximately 63,136 square feet of space on the northern portion of the parcel and a 1963-vintage, two-story building (Building 2) that encloses approximately 15,397 square feet of space on the central portion of the parcel. Parcels B and C are occupied by asphalt-paved parking lots. Parcel B is also occupied by Sound Transit's elevated Link light rail. Additional improvements include a gravel road and an asphalt-paved parking lot on Parcel A, as shown on Figure 2. The remaining portions of the Property are undeveloped and forested.

BACKGROUND

According to information gathered during SoundEarth's Phase I ESA, the Property was initially developed by at least 1916 when a single-family residence and a vegetable garden were located on the northern portion of the Property. The residence appears to have been demolished by at least 1950. A bowling alley was constructed on the Property in 1957 and a commercial building was constructed on the central portion of the Property in 1963. The bowling alley was occupied by Rainier Lanes and the commercial building was occupied by A and P Food Stores until at least 1970. By 1969, the northern portion of the Property and the southeast portion of the Property were used as parking lots. In 1983, the bowling alley was converted into the University of Washington (UW) Consolidated Laundry Facility. Value Village occupied the commercial building from at least 1975 until at least 1996. By 2003, Grocery Outlet occupied the commercial building and by at least 2014, the UW occupied the commercial building and used it as Kings Hall, a space used for various events including dinners, dances, and wedding receptions. At the time of the Property visit, the 1957-vintage UW Laundry building was vacant and the 1963-vintage retail building was occupied by Kings Hall.

The following RECs were identified during the course of SoundEarth's Phase I ESA:

- **The use and underground storage of petroleum products on the Property.** A 4,000-gallon fuel oil underground storage tank (UST) was installed on the northern portion of Parcel A in 1983. The fill port and vent line for the UST were observed during the Property reconnaissance. Building records indicate that the UST was used to fuel two boilers located in the northern portion of Building 1. However, an interview with the manager of the building indicated that the UST was used to store fuel for a generator that is located off-site in the case of an emergency and that the boilers were fueled by natural gas.
- **The former operation of a bowling alley on the Property.** Rainier Lanes, a bowling alley, was constructed on the Property in 1957 and occupied Building 1 until at least 1980. During this time period, bowling alleys commonly used chlorinated solvents and petroleum-based solvents such as carbon tetrachloride and tetrachloroethene to clean the pins and other equipment utilized by the bowling alley. Records reviewed in the course of the investigation suggest that large quantities of solvents and other hazardous materials were removed from the Property for disposal more than 10 years after the bowling alley ceased operations.
- **The former operation of a laundry facility on the Property.** In approximately 1983, the bowling alley was converted into an industrial-sized laundry facility that operated until 2019. Interviews with UW employees associated with the facility indicated that the facility never used dry cleaning methods. However, records confirm that significant quantities of hazardous wastes were removed from the Property during the facility's period of operation. Although some of these materials may have been generated by the former bowling alley and allowed to remain on the Property for a period of more than 10 years, it is also possible that some of the materials were generated in the course of the laundry facility's operations.
- **The presence of fill material beneath the Property.** Building plan records indicate that 5,200 cubic yards of fill material was used for grading on the Property in approximately 1983. The source of the fill material was not included in the available records.
- **The historical presence of a dry cleaner southeast of the Property.** Washington State Department of Ecology (Ecology) records indicate that solvent contamination is present in soil and

groundwater beneath the property located at 3101 Martin Luther King Junior Way South, approximately 300 feet southeast (cross-gradient) of the Property. A Site Hazard Assessment completed in 2015 reports that Red, White, and Blue Cleaners, a dry cleaning business, operated on the property from 1956 until 1960.

PHASE II ESA FIELD WORK

In order to assess potential impacts to soil and groundwater from the RECs identified at the Property, SoundEarth conducted a Phase II ESA in October and November 2019. Elements of the investigation included a focused ground-penetrating radar (GPR) survey and the advancement of 18 soil borings in exterior portions of the Property (P01 though P18). Borings were advanced in locations selected to evaluate potential impacts originating from current and historical activities at the Property, including the former operation of a bowling alley and a laundry facility and the use and storage of petroleum products, as well as the presence of fill material beneath the Property and the historical operation of a dry cleaner southeast of the Property.

Prior to conducting the field activities, private and public utility locate services were used to identify the location of underground utilities. A more detailed discussion of field activities is presented below.

GPR Survey

On October 30, 2019, Applied Professional Services, under the observation of a SoundEarth geologist, conducted a focused GPR survey in the vicinity of the UST north of Building 1 to attempt to more accurate locate the UST prior to drilling in this area. However, the extent of the UST could not be definitively determined during the GPR survey.

Direct-Push Borings and Soil Sampling

On October 30 through November 1, 2019, Environmental Services Network Northwest, Inc. of Olympia, Washington, under the observation of a SoundEarth geologist, advanced 18 direct-push borings at the Property (P01 through P18). Soil borings were advanced to depths of 15 to 25 feet below ground surface (bgs) at the locations shown on Figure 2 using a truck-mounted GeoProbe drill rig.

Soil was sampled continuously in each direct-push boring in 3- to 5-foot intervals. Soil samples were described in general accordance with the Unified Soil Classification System (USCS) and were screened in the field for potential evidence of contamination using visual observations and notations of odor, and by conducting headspace analysis using a photoionization detector (PID) to detect the presence of volatile organic vapors. The USCS symbol, visual and olfactory notations for the samples, and PID readings were recorded on boring log forms, copies of which are provided as Attachment A.

Based on boring locations, screening results, sampling depths, and observed soil characteristics, selected soil samples were labeled with a unique sample ID, placed on ice in a cooler, and delivered to Friedman & Bruya, Inc. (F&B) of Seattle, Washington, under standard chain-of-custody protocols for laboratory analysis of one or more of the following:

- Volatile organic compounds (VOCs) by US Environmental Protection Agency (EPA) Method 8260C

- Gasoline-range petroleum hydrocarbons (GRPH) by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-Gx
- Diesel-range petroleum hydrocarbons (DPRH) and oil-range petroleum hydrocarbons (ORPH) by Method NWTPH-Dx
- Washington State Model Toxics Control Act (MTCA) 5 metals using EPA Method 6020B
- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by EPA Method 8270D

Soil cuttings generated during drilling were placed in a labeled 55-gallon drum, pending waste profiling and proper disposal.

Reconnaissance Groundwater Sample Collection

Groundwater was encountered during drilling in borings P01 through P03 and P09 through P16 at depths ranging from approximately 9.5 to 20 feet bgs. A temporary monitoring well consisting of 1-inch-diameter PVC casing with a 5-foot screened interval was installed in each of these borings. Approximately 1 to 2 gallons of water were purged from each boring until low turbidity was achieved, and a reconnaissance groundwater sample was collected from the temporary well using a peristaltic pump and dedicated polyethylene tubing. The well casing was removed after sample collection, and the borings were subsequently decommissioned by filling the boreholes with hydrated bentonite chips and sealing with concrete or asphalt to grade, in accordance with the procedures specified in the Minimum Standards for Construction and Maintenance of Wells (Washington Administrative Code 173-360). After collection, reconnaissance groundwater samples were labeled with unique sample IDs, placed on ice in a cooler, and delivered to F&B under standard chain-of-custody protocols for chemical analysis of one or more of the following:

- VOCs by EPA Method 8260C
- GRPH by Method NWTPH-Gx
- DRPH and ORPH by Method NWTPH-Dx

Purge and decontamination water generated during reconnaissance groundwater sampling was contained on the Property in a labeled 16-gallon drum, pending waste profiling and proper disposal.

Subsurface Conditions and Analytical Results

This section summarizes the results of the Phase II ESA. The analytical results for the soil and reconnaissance groundwater samples collected during the investigation at the Property are presented in Tables 1 through 6. Descriptive borings logs are included as Attachment A, and laboratory analytical reports for the samples collected during the investigation are included as Attachment B.

Based on observations presented in boring logs provided in Attachment A, shallow soil conditions on the Property consisted of silty sand or sandy silt with varying amounts of gravel to approximately 10 feet bgs, underlain by silt, sandy silt, or clay to the maximum depth of exploration of 25 feet bgs. In borings P14 through P16, located in the vicinity of the UST north of Building 1, pea gravel and silty sand were observed to depths of approximately 15 to 18 feet bgs. Anthropogenic fill material, including wood and brick fragments, was observed at depths between 5 and 17.5 feet bgs in borings P11, P13, and P16.

Field screening revealed no obvious visual or olfactory indications of petroleum hydrocarbon or chlorinated VOC (CVOC) contamination. PID readings greater than 0.0 parts per million by volume (ppmv) were not observed in samples collected from the majority of the borings, with the exception of samples collected between 8 and 15 feet in borings P11, P13, P14, P16, and P18, where PID readings of up to 6.1 ppmv were observed.

Groundwater was encountered in borings P01 through P03 and P09 through P16 at depths ranging from approximately 9.5 to 20 feet bgs at the time of drilling. Reconnaissance groundwater samples collected from each of these borings did not exhibit any apparent hydrocarbon or solvent odors or sheen.

Soil Results

Soil analytical results are summarized on Figures 3 and 4 and in Tables 1 through 4, and are discussed below. The laboratory analytical reports for the samples collected are provided in Attachment B.

- **CVOCs.** Concentrations of CVOCs were not detected above laboratory reporting limits in any of the soil samples submitted for analysis.
- **GRPH.** GRPH concentrations were not detected above the laboratory reporting limit in any of the soil samples submitted for analysis.
- **Benzene, toluene, ethylbenzene, and total xylenes (BTEX).** Concentrations of BTEX constituents were not detected above the applicable laboratory reporting limits in any of the soil samples submitted for analysis.
- **DRPH and ORPH.** An ORPH concentration of 3,700 milligrams per kilogram (mg/kg), exceeding the applicable MTCA Method A cleanup level of 2,000 mg/kg, was detected in the soil sample collected from 10 feet bgs in boring P13. DRPH was detected in this sample at a concentration below the applicable cleanup level (840 mg/kg). A concentration of DRPH below the applicable cleanup level was detected in the sample collected from 15 feet bgs in boring P16, and an ORPH concentration below the applicable cleanup level was detected in the sample collected from 10 feet bgs in boring P14.
- **MTCA 5 Metals.** Concentrations of arsenic, chromium, and lead were detected in all samples submitted for analysis at concentrations below the applicable MTCA Method A cleanup levels. With the exception of slightly elevated lead concentrations detected in samples collected from 12 feet bgs in boring P11 (101 mg/kg) and 10 feet bgs in boring P13 (80.0 mg/kg), the detected arsenic, chromium, and lead concentrations were consistent with natural background levels for the Puget Sound area. Cadmium and mercury were not detected above laboratory reporting limits in any samples submitted for analysis.
- **cPAHs.** The calculated toxicity equivalent for each of the soil samples submitted for analysis was below the applicable MTCA Method A cleanup level. Detectable concentrations of benzo(a)pyrene and other cPAHs below the applicable cleanup level were present in samples collected from borings P13 at 10 feet bgs, P17 at 5 feet bgs, and P18 at 5 feet bgs.

  Due to interference from oil present in the sample collected from P11 at 12 feet bgs, the sample was diluted by the laboratory prior to analysis. As a result, the detection limits were elevated to 0.5 mg/kg, which exceeds the MTCA Method A cleanup level of 0.1 mg/kg.

Reconnaissance Groundwater Results

Groundwater analytical results are summarized on Figure 5 and in Tables 5 and 6, and are discussed below. The laboratory analytical reports for the samples collected are provided in Attachment B.

- **CVOCs.** Concentrations of CVOCs were not detected above the laboratory reporting limit in any of the soil samples submitted for analysis.
- **GRPH.** GRPH concentrations were not detected above the laboratory reporting limit in any of the soil samples submitted for analysis.
- **BTEX.** Concentrations of BTEX constituents were not detected above the applicable laboratory reporting limits in any of the soil samples submitted for analysis.
- **DRPH and ORPH.** DRPH and ORPH were detected in the groundwater sample collected from boring P13 at concentrations exceeding the applicable MTCA Method A cleanup level of 500 micrograms per liter (µg/L; 910 and 520 µg/L, respectively). A DRPH concentration of 1,800 µg/L was detected in the groundwater sample collected from boring P16, exceeding the applicable cleanup level.

  DRPH concentrations below the applicable cleanup level were detected in the groundwater samples collected from borings P11 and P14 (190 and 480 µg/L, respectively), and an ORPH concentration below the applicable cleanup level was detected in the groundwater sample collected from boring P16 (290 µg/L).

CONCLUSIONS AND RECOMMENDATIONS

The results of the Phase II investigation suggest that DRPH and ORPH are present in soil and groundwater beneath the north and northeastern portions of the Property at concentrations exceeding applicable MTCA Method A cleanup levels. CVOCs, GRPH, BTEX, MTCA 5 metals, and cPAHs were not detected at concentrations exceeding applicable cleanup levels and/or laboratory reporting limits in any of the analyzed soil or reconnaissance groundwater samples.

Soil beneath portions of the Property, including the areas to the north and east of the former laundry building on Parcel A and the parking lot on Parcel C, was observed to contain anthropogenic fill material consisting primarily of wood and brick fragments at depths between 5 and 17.5 feet bgs. Borings advanced in these areas, including P13 and P16 in the northern portion of the Property and P11 in the southeastern portion of the Property, contained elevated concentrations of DRPH and/or ORPH in groundwater and in soil at depths corresponding with the observed fill material. The limited vertical extent of impacts to soil in these borings and the absence of DRPH and ORPH in soil and groundwater in other borings at the Property indicate that these impacts are likely associated with the fill material placed at the Property in approximately 1983.

While DRPH and ORPH impacts in borings P11 and P13 do not appear to be the result of an on-Property petroleum release, boring P16 is located on the downgradient side of the 4,000-gallon UST located to the north of the building, and the DRPH concentration exceeding the applicable cleanup level in the reconnaissance groundwater sample collected from this boring may indicate that a release has occurred from the UST. However, reconnaissance groundwater samples tend to produce analytical results that are biased high due to the increased turbidity of the samples; analysis of groundwater samples collected from

properly developed wells installed in the same location may result in lower concentrations that are more representative of actual groundwater conditions. If a higher level of certainty regarding the actual groundwater conditions is desired, additional sampling of groundwater from properly developed monitoring wells may be warranted to assess whether the petroleum concentrations in groundwater exceed the MTCA Method A cleanup level.

Based on these results, the potential risk for impacts to the Property from former bowling alley and laundry activities on the Property and the historical operation of a dry cleaner to the southeast of the Property appears to be low, and no additional investigation of these RECs is warranted. However, it should be noted that the scope of this Phase II ESA was not exhaustive, and the potential exists for soil and groundwater impacts associated with the observed fill material to be present at other unexplored locations. As such, if future redevelopment activities are planned that will involve subsurface excavation activities, SoundEarth recommends that a soil management plan be prepared prior to Property redevelopment that would be used to address potential discoveries such as soil impacts and USTs.

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report are derived, in part, from data gathered by others, and from conditions evaluated when services were performed, and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We do not warrant and are not responsible for the accuracy or validity of work performed by others, or for the impacts of changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

Respectfully,
SoundEarth Strategies, Inc.

Clare Tochilin, LG
Associate Geologist

Ryan Bixby, LG
Managing Principal

State of Washington
1691
Licensed Geologist
Ryan K. Bixby

Attachments: Figure 1, Property Location Map
Figure 2, Exploration Location Plan
Figure 3, Soil Analytical Results for TPH and VOCs
Figure 4, Soil Analytical Results for Metals and cPAHs

Figure 5, Reconnaissance Groundwater Analytical Results for TPH and VOCs
Table 1, Soil Analytical Results for Chlorinated VOCs
Table 2, Soil Analytical Results for TPH and BTEX
Table 3, Soil Analytical Results for MTCA 5 Metals
Table 4, Soil Analytical Results for cPAHs
Table 5, Groundwater Analytical Results for Chlorinated VOCs
Table 6, Groundwater Analytical Results for TPH and BTEX
A, Boring Logs
B, Laboratory Analytical Reports

Friedman & Bruya, Inc. #910603
Friedman & Bruya, Inc. #911015 and additional
Friedman & Bruya, Inc. #911016 and additional
Friedman & Bruya, Inc. #911023 and additional
Friedman & Bruya, Inc. #911030 and additional

CJT/RKB:rt

FIGURES

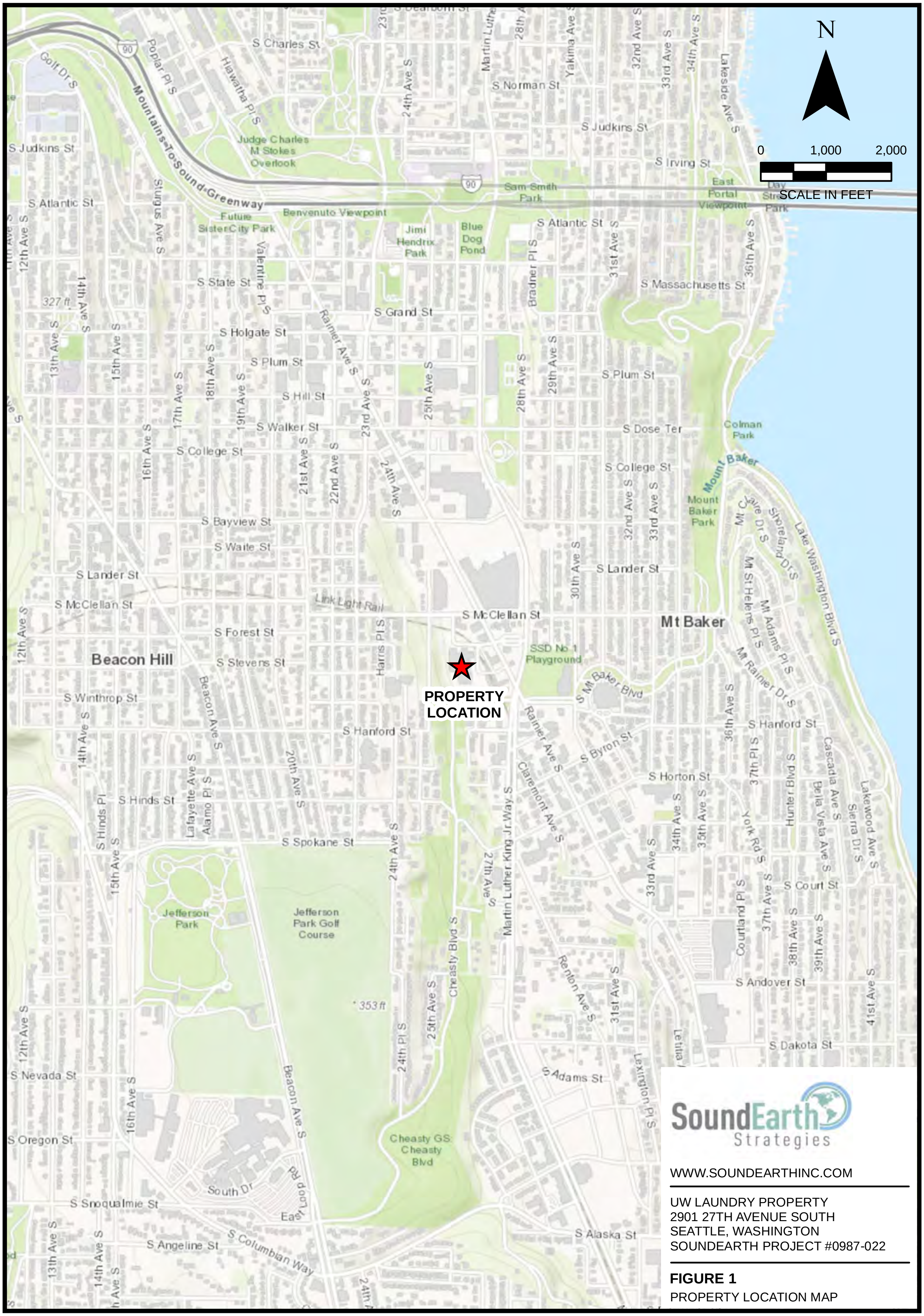

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FIGURE 1
PROPERTY LOCATION MAP

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APPROXIMATE LOCATION OF FORMER RESIDENCES WITH HEATING OIL USE

SOUND TRANSIT PARCEL: 3085002065

RETAIL/RESTAURANT 2609 SOUTH MCCLELLAN STREET PARCEL: 7138300035

26TH AVENUE SOUTH

PARKING LOT 2600 SOUTH FOREST STREET PARCEL B: 7138300015

P17

P18

PARKING LOT 2620 SOUTH FOREST STREET PARCEL: 7138300005

PAWN SHOP 2825 RAINIER AVENUE SOUTH PARCEL: 7138300090

APPROXIMATE LOCATION OF 4,000-GALLON UST AND FILL PORT

TRANSFORMER

P16

P15

P14

P06

P13

SOUTH FOREST STREET

MARTIN LUTHER KING JUNIOR WAY SOUTH

25TH AVENUE SOUTH

APPROXIMATE LOCATION OF VENT PIPE FOR 4,000-GALLON UST

APPROXIMATE LOCATION OF SUMP

P07

APPROXIMATE LOCATION OF FORMER BOWLING ALLEY

APPROXIMATE LOCATION OF FORMER RESIDENCE

BUILDING 1 FORMER UW LAUNDRY/ FORMER BOWLING ALLEY

27TH AVENUE SOUTH

SOUND TRANSIT PARCEL: 7138800010

RAINIER AVENUE SOUTH

P12

P08

APPROXIMATE LOCATION OF FORMER RESIDENCE WITH OIL-BURNING FURNACES

SOUND TRANSIT SOUTH STEVENS STREET PARCEL: 3085002085

P03

P02

P01

APPROXIMATE LOCATIONS OF FILL

2901 27TH AVENUE SOUTH PARCEL A: 3085002100

P05

BUILDING 2 EVENT CENTER

P04

PARKING

P10

SOUND TRANSIT PARCEL: 7138800030

GRAVEL ROAD

VACANT PARCEL: 3085002160

PARKING LOT 2700 SOUTH WINTHROP STREET PARCEL C: 7138800025

P09

P11

UNDEVELOPED LAND

SOUTH WINTHROP STREET

VACANT 2723 SOUTH WINTHROP STREET PARCEL: 5058300080

VACANT 2711 SOUTH WINTHROP STREET PARCEL: 5058300100

APPROXIMATE LOCATION OF FORMER RESIDENCES WITH OIL-BURNING FURNACES

3101 MARTIN LUTHER KING JUNIOR WAY SOUTH

VACANT PARCEL: 3085002225

VACANT PARCEL: 3085002300

CLOTHING WAREHOUSE 3111 27TH AVENUE SOUTH PARCEL: 3085002295

WORKSHOP 2705 SOUTH WINTHROP STREET PARCEL: 5058300110

APPROXIMATE LOCATION OF FORMER RED, WHITE, AND BLUE DRY CLEANERS

N

0 50 100

APPROXIMATE SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SS — SEWER LINE
- SD — STORMDRAIN LINE
- MANHOLE
- CATCH BASIN
- P18 — SOIL BORING
- INFERRED DIRECTION OF GROUNDWATER FLOW
- UST — UNDERGROUND STORAGE TANK

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FIGURE 2
EXPLORATION LOCATION PLAN

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APPROXIMATE LOCATION OF FORMER RESIDENCES WITH HEATING OIL USE

SOUND TRANSIT PARCEL: 3085002065

RETAIL/RESTAURANT 2609 SOUTH MCCLELLAN STREET PARCEL: 7138300035

PARKING LOT 2600 SOUTH FOREST STREET PARCEL B: 7138300015

PARKING LOT 2620 SOUTH FOREST STREET PARCEL: 7138300005

PAWN SHOP 2825 RAINIER AVENUE SOUTH PARCEL: 7138300090

26TH AVENUE SOUTH

25TH AVENUE SOUTH

MARTIN LUTHER KING JUNIOR WAY SOUTH

SOUTH FOREST STREET

APPROXIMATE LOCATION OF 4,000-GALLON UST AND FILL PORT

TRANSFORMER

APPROXIMATE LOCATION OF VENT PIPE FOR 4,000-GALLON UST

APPROXIMATE LOCATION OF SUMP

APPROXIMATE LOCATION OF FORMER BOWLING ALLEY

APPROXIMATE LOCATION OF FORMER RESIDENCE

BUILDING 1 FORMER UW LAUNDRY/ FORMER BOWLING ALLEY

27TH AVENUE SOUTH

SOUND TRANSIT PARCEL: 7138800010

RAINIER AVENUE SOUTH

APPROXIMATE LOCATIONS OF FILL

SOUND TRANSIT SOUTH STEVENS STREET PARCEL: 3085002085

2901 27TH AVENUE SOUTH PARCEL A: 3085002100

BUILDING 2 EVENT CENTER

PARKING

APPROXIMATE LOCATION OF FORMER RESIDENCE WITH OIL-BURNING FURNACES

SOUND TRANSIT PARCEL: 7138800030

PARKING LOT 2700 SOUTH WINTHROP STREET PARCEL C: 7138800025

GRAVEL ROAD

VACANT PARCEL: 3085002160

UNDEVELOPED LAND

SOUTH WINTHROP STREET

VACANT 2723 SOUTH WINTHROP STREET PARCEL: 5058300080

VACANT 2711 SOUTH WINTHROP STREET PARCEL: 5058300100

APPROXIMATE LOCATION OF FORMER RESIDENCES WITH OIL-BURNING FURNACES

3101 MARTIN LUTHER KING JUNIOR WAY SOUTH

APPROXIMATE LOCATION OF FORMER RED, WHITE, AND BLUE DRY CLEANERS

VACANT PARCEL: 3085002225

VACANT PARCEL: 3085002300

CLOTHING WAREHOUSE 3111 27TH AVENUE SOUTH PARCEL: 3085002295

WORKSHOP 2705 SOUTH WINTHROP STREET PARCEL: 5058300110

P01 P02 P03 P04 P05 P06 P07 P08 P09 P10 P11 P12 P13 P14 P15 P16 P17 P18

N

0 50 100

APPROXIMATE SCALE IN FEET

LEGEND

	PROPERTY BOUNDARY
	PARCEL BOUNDARY
SS	SEWER LINE
SD	STORMDRAIN LINE
	MANHOLE
	CATCH BASIN
P18	SOIL BORING
	INFERRED DIRECTION OF GROUNDWATER FLOW
RED	EXCEEDS MTCA METHOD A CLEANUP LEVEL
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS
DRPH	DIESEL-RANGE PETROLEUM HYDROCARBONS
ORPH	OIL-RANGE PETROLEUM HYDROCARBONS
TPH	TOTAL PETROLEUM HYDROCARBONS
VOC	VOLATILE ORGANIC COMPOUND
UST	UNDERGROUND STORAGE TANK
bgs	BELOW GROUND SURFACE
ND	NON DETECT
--	NOT ANALYZED
<	NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT

Boring ID	Date Sampled	Depth (feet bgs)	Analytical Results (milligrams per kilogram) GRPH	DRPH	ORPH	VOCs
P01	10/30/19	10	--	--	--	ND
		15	--	--	--	ND
P02		10	--	--	--	ND
		15	--	--	--	ND
P03		13	--	--	--	ND
		16	--	--	--	ND
P04		12	--	--	--	ND
		15	--	--	--	ND
P05	10/31/19	9	--	--	--	ND
		15	--	--	--	ND
P06		10	--	--	--	ND
		15	--	--	--	ND
P07		10	--	--	--	ND
		15	--	--	--	ND
P08		10	--	--	--	ND
		15	--	--	--	ND
P11		12	--	<50	510	ND
		15	--	<50	<250	ND
P12	11/01/19	10	--	--	--	ND
		15	--	--	--	ND
P13		10	--	840	3,700	ND
		15	--	<50	<250	ND
P14		10	<5	<50	480	ND
		15	<5	<50	<250	ND
P15		10	<5	<50	<250	ND
		15	<5	<50	<250	ND
P16		10	--	--	--	ND
		15	<5	660	<250	ND
		20	<5	<50	<250	ND
MTCA Cleanup Level for Soil			100	2,000	2,000	varies

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FIGURE 3

SOIL ANALYTICAL RESULTS FOR TPH AND VOCs

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APPROXIMATE LOCATION OF FORMER RESIDENCES WITH OIL-BURNING FURNACES

SOUND TRANSIT SOUTH STEVENS STREET PARCEL: 3085002085

APPROXIMATE LOCATIONS OF FILL

2901 27TH AVENUE SOUTH PARCEL A: 3085002100

BUILDING 2 EVENT CENTER

PARKING

SOUND TRANSIT PARCEL: 7138800030

PARKING LOT 2700 SOUTH WINTHROP STREET PARCEL C: 7138800025

VACANT PARCEL: 3085002160

GRAVEL ROAD

UNDEVELOPED LAND

SOUTH WINTHROP STREET

VACANT 2723 SOUTH WINTHROP STREET PARCEL: 5058300080

VACANT 2711 SOUTH WINTHROP STREET PARCEL: 5058300100

APPROXIMATE LOCATION OF FORMER RESIDENCES WITH OIL-BURNING FURNACES

3101 MARTIN LUTHER KING JUNIOR WAY SOUTH

APPROXIMATE LOCATION OF FORMER RED, WHITE, AND BLUE DRY CLEANERS

VACANT PARCEL: 3085002300

CLOTHING WAREHOUSE 3111 27TH AVENUE SOUTH PARCEL: 3085002295

WORKSHOP 2705 SOUTH WINTHROP STREET PARCEL: 5058300110

P01 P02 P03 P04 P05 P06 P07 P08 P09 P10 P11 P12 P13 P14 P15 P16 P17 P18

N

0 50 100

APPROXIMATE SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SS — SEWER LINE
- SD — STORMDRAIN LINE
- MANHOLE
- CATCH BASIN
- P18 — SOIL BORING
- INFERRED DIRECTION OF GROUNDWATER FLOW
- cPAH — CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBONS
- TEQ — TOXICITY EQUIVALENT QUOTIENT
- **BOLD** — LABORATY REPORTING LIMIT EXCEEDS MTCA METHOD A CLEANUP LEVEL
- MTCA — WASHINGTON STATE MODEL TOXICS CONTROL ACT
- UST — UNDERGROUND STORAGE TANK
- bgs — BELOW GROUND SURFACE
- < — NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT

Boring ID	Sample ID	Date Sampled	Depth (feet bgs)	Analytical Results (milligrams per kilogram) Arsenic	Cadmium	Chromium	Lead	Mercury	cPAH TEQ
P04	P04-05	10/30/19	5	3.12	<1	25.6	2.93	<1	0.01
P09	P09-05		5	7.13	<1	33.8	7.26	<1	0.01
P10	P10-05	10/31/19	5	5.13	<1	52.1	7.47	<1	0.01
P11	P11-12		12	5.59	<1	23.8	101	<1	**0.38**
P12	P12-05		5	3.09	<1	17.0	2.46	<1	0.01
P13	P13-10		10	3.55	<1	21.9	80.0	<1	0.09
P16	P16-15	11/01/19	15	5.25	<1	24.6	6.56	<1	0.01
P17	P17-05		5	4.86	<1	49.3	34.8	<1	0.02
P18	P18-05		5	2.21	<1	13.5	4.31	<1	0.04
MTCA Cleanup Level for Soil				**20**	**2**	**2,000**	**250**	**2**	**0.1**

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UW LAUNDRY PROPERTY
2901 27TH AVENUE SOUTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0987-022

FIGURE 4

SOIL ANALYTICAL RESULTS FOR METALS AND cPAHs

11/19/2019

P:\0987 CITY OF SEATTLE\0987-022 UW LAUNDRY BLDG PROPERTY\TECHNICAL\CAD\2019\2019 PHASE II\0987-022_2019_RES.DWG

APPROXIMATE LOCATION OF FORMER RESIDENCES WITH HEATING OIL USE

SOUND TRANSIT PARCEL: 3085002065

RETAIL/RESTAURANT 2609 SOUTH MCCLELLAN STREET PARCEL: 7138300035

PARKING LOT 2600 SOUTH FOREST STREET PARCEL B: 7138300015

PARKING LOT 2620 SOUTH FOREST STREET PARCEL: 7138300005

PAWN SHOP 2825 RAINIER AVENUE SOUTH PARCEL: 7138300090

26TH AVENUE SOUTH

25TH AVENUE SOUTH

27TH AVENUE SOUTH

MARTIN LUTHER KING JUNIOR WAY SOUTH

RAINIER AVENUE SOUTH

SOUTH FOREST STREET

SOUTH WINTHROP STREET

GRAVEL ROAD

PARKING

APPROXIMATE LOCATION OF 4,000-GALLON UST AND FILL PORT

TRANSFORMER

APPROXIMATE LOCATION OF VENT PIPE FOR 4,000-GALLON UST

APPROXIMATE LOCATION OF SUMP

APPROXIMATE LOCATION OF FORMER BOWLING ALLEY

APPROXIMATE LOCATION OF FORMER RESIDENCE

BUILDING 1 FORMER UW LAUNDRY/ FORMER BOWLING ALLEY

BUILDING 2 EVENT CENTER

2901 27TH AVENUE SOUTH PARCEL A: 3085002100

SOUND TRANSIT SOUTH STEVENS STREET PARCEL: 3085002085

APPROXIMATE LOCATION OF FORMER RESIDENCE WITH OIL-BURNING FURNACES

APPROXIMATE LOCATIONS OF FILL

SOUND TRANSIT PARCEL: 7138800010

SOUND TRANSIT PARCEL: 7138800030

PARKING LOT 2700 SOUTH WINTHROP STREET PARCEL C: 7138800025

VACANT PARCEL: 3085002160

UNDEVELOPED LAND

VACANT 2723 SOUTH WINTHROP STREET PARCEL: 5058300080

VACANT 2711 SOUTH WINTHROP STREET PARCEL: 5058300100

APPROXIMATE LOCATION OF FORMER RESIDENCES WITH OIL-BURNING FURNACES

3101 MARTIN LUTHER KING JUNIOR WAY SOUTH

APPROXIMATE LOCATION OF FORMER RED, WHITE, AND BLUE DRY CLEANERS

WORKSHOP 2705 SOUTH WINTHROP STREET PARCEL: 5058300110

VACANT PARCEL: 3085002225

VACANT PARCEL: 3085002300

CLOTHING WAREHOUSE 3111 27TH AVENUE SOUTH PARCEL: 3085002295

P01 P02 P03 P04 P05 P06 P07 P08 P09 P10 P11 P12 P13 P14 P15 P16 P17 P18

N

0 50 100

APPROXIMATE SCALE IN FEET

LEGEND

	PROPERTY BOUNDARY
	PARCEL BOUNDARY
SS	SEWER LINE
SD	STORMDRAIN LINE
	MANHOLE
	CATCH BASIN
P18	SOIL BORING
	INFERRED DIRECTION OF GROUNDWATER FLOW
RED	EXCEEDS MTCA METHOD A CLEANUP LEVEL
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS
DRPH	DIESEL-RANGE PETROLEUM HYDROCARBONS
ORPH	OIL-RANGE PETROLEUM HYDROCARBONS
TPH	TOTAL PETROLEUM HYDROCARBONS
VOC	VOLATILE ORGANIC COMPOUND
UST	UNDERGROUND STORAGE TANK
ND	NON DETECT
--	NOT ANALYZED
<	NOT DETECTED AT CONCENTRATION EXCEEDING THE LABORATORY REPORTING LIMIT

Boring ID	Date Sampled	Analytical Results (micrograms per liter) GRPH	DRPH	ORPH	VOCs
P01	10/30/19	--	--	--	ND
P02		--	--	--	ND
P03		--	--	--	ND
P11	10/31/19	--	190	<250	ND
P12		--	--	--	ND
P13		--	**910**	**520**	ND
P14	11/01/19	<100	480	<250	ND
P16		<100	**1,800**	290	ND
MTCA Cleanup Level		1,000	500	500	varies

SoundEarth Strategies

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UW LAUNDRY PROPERTY
2901 27TH AVENUE SOUTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0987-022

FIGURE 5

RECONNAISSANCE GROUNDWATER ANALYTICAL RESULTS FOR TPH AND VOCs

TABLES

Table 1
Soil Analytical Results for Chlorinated VOCs
UW Laundry Property
2901 27th Avenue South
Seattle, Washington

Boring ID	Sample ID	Sampled By	Date Sampled	Depth (feet bgs)	Analytical Results[1] (milligrams per kilogram)					
					Tetrachloroethene	Trichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
P01	P01-10	SoundEarth	10/30/19	10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P01-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P02	P02-10			10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P02-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P03	P03-13			13	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P03-16			16	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P04	P04-12			12	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P04-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P05	P05-09		10/31/19	9	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P05-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P06	P06-10			10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P06-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P07	P07-10			10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P07-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P08	P08-10			10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P08-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P11	P11-12			12	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P12	P12-10		11/01/19	10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P12-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P13	P13-10			10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P13-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P14	P14-10			10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P14-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
P16	P16-10			10	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P16-15			15	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
	P16-20			20	<0.025	<0.02	<0.05	<0.05	<0.05	<0.05
MTCA Cleanup Level for Soil					**0.05**[2]	**0.03**[2]	**160**[3]	**1,600**[3]	**4,000**[3]	**0.67**[4]

NOTES:

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Samples analyzed by EPA Method 8260C.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

[3]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Noncancer, Direct Contact, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[4]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Cancer, Direct Contact, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

< = not detected at a concentration exceeding the laboratory reporting limit
bgs = below ground surface
CLARC = Cleanup Levels and Risk Calculations
EPA = US Environmental Protection Agency
MTCA = Washington State Model Toxics Control Act
SoundEarth = SoundEarth Strategies, Inc.
VOC = volatile organic compound
WAC = Washington Administrative Code

Table 2
Soil Analytical Results for TPH and BTEX
UW Laundry Property
2901 27th Avenue South
Seattle, Washington

Boring ID	Sample ID	Sampled By	Date Sampled	Depth (feet bgs)	Analytical Results (milligrams per kilogram)						
					GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
P11	P11-12	SoundEarth	10/31/19	10	--	<50	510	--	--	--	--
	P11-15			15	--	<50	<250	--	--	--	--
P13	P13-10		11/01/19	10	--	840	**3,700**	--	--	--	--
	P13-15			15	--	<50	<250	--	--	--	--
P14	P14-10			10	<5	<50	480	<0.02	<0.02	<0.02	<0.06
	P14-15			15	<5	<50	<250	<0.02	<0.02	<0.02	<0.06
P15	P15-10			10	<5	<50	<250	<0.02	<0.02	<0.02	<0.06
	P15-15			15	<5	<50	<250	<0.02	<0.02	<0.02	<0.06
P16	P16-15			15	<5	660	<250	<0.02	<0.02	<0.02	<0.06
	P16-20			20	<5	<50	<250	<0.02	<0.02	<0.02	<0.06
MTCA Cleanup Level for Soil[4]					**100**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**

NOTES:

Red denotes concentration exceeds MTCA cleanup level for soil.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Analyzed by Method NWTPH-Gx.

[2]Analyzed by Method NWTPH-Dx.

[3]Analyzed by EPA Method 8021B.

[4]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

-- = no data

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

BTEX = benzene, toluene, ethylbenzene, and total xylenes

DRPH = diesel-range petroleum hydrocarbons

EPA = US Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbons

SoundEarth = SoundEarth Strategies, Inc.

TPH = total petroleum hydrocarbons

WAC = Washington Administrative Code

Table 3
Soil Analytical Results for MTCA 5 Metals
UW Laundry Property
2901 27th Avenue South
Seattle, Washington

Boring ID	Sample ID	Date Sampled	Depth (feet bgs)	Analytical Results[1] (milligrams per kilogram)				
				Arsenic	Cadmium	Chromium	Lead	Mercury
P04	P04-05	10/30/19	5	3.12	<1	25.6	2.93	<1
P09	P09-05	10/31/19	5	7.13	<1	33.8	7.26	<1
P10	P10-05		5	5.13	<1	52.1	7.47	<1
P11	P11-12		12	5.59	<1	23.8	101	<1
P12	P12-05	11/01/19	5	3.09	<1	17.0	2.46	<1
P13	P13-10		10	3.55	<1	21.9	80.0	<1
P16	P16-15		15	5.25	<1	24.6	6.56	<1
P17	P17-05		5	4.86	<1	49.3	34.8	<1
P18	P18-05		5	2.21	<1	13.5	4.31	<1
MTCA Cleanup Level for Soil				**20**[2]	**2**[2]	**2,000**[2]	**250**[2]	**2**[2]

NOTES:

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Samples analyzed by EPA Method 6020B.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

EPA = US Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code

Table 4
Soil Analytical Results for cPAHs
UW Laundry Property
2901 27th Avenue South
Seattle, Washington

Boring ID	Sample ID	Date Sampled	cPAHs Toxicity Equivalency[1] (milligrams per kilogram)												TEQ[1] (milligrams per kilogram)
			Benzo(a)-anthracene TEF: 0.1		Chrysene TEF: 0.01		Benzo(a)pyrene TEF: 1		Benzo(b)-fluoranthene TEF: 0.1		Benzo(k)-fluoranthene TEF: 0.1		Indeno(1,2,3-cd)-pyrene TEF: 0.1		Dibenz(a,h)-anthracene TEF: 0.1		
P04	P04-05	10/30/19	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	0.01
P09	P09-05	10/31/19	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	0.01
P10	P10-05		<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	0.01
P11	P11-12[d]		<	0.5	<	0.5	**<**	**0.5**	<	0.5	<	0.5	<	0.5	<	0.5	**0.38**
P12	P12-05	11/01/19	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	0.01
P13	P13-10			0.097		0.47		0.052[J]		0.11[J]		0.085[J]	<	0.05[J]	<	0.05[J]	0.09
P16	P16-15		<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	<	0.01	0.01
P17	P17-05			0.013		0.015		0.012		0.016	<	0.01	<	0.01	<	0.01	0.02
P18	P18-05		<	0.05		0.18	<	0.05[J]		0.052[J]	<	0.05[J]	<	0.05[J]	<	0.05[J]	0.04
MTCA Cleanup Level for Soil			**NE**		**NE**		**0.1**[2]		**NE**		**NE**		**NE**		**NE**		**0.1**[2]

NOTES:

Bold denotes reporting limit exceeds MTCA cleanup level for soil.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

Samples analyzed by GC/MS-SIM or EPA Method 8270D.

[1]Analytical result for each individual cPAH is multiplied by the TEF and all seven cPAH values are added. When analytical results are reported as less than the LRL, one-half of the LRL is multiplied by the TEF to calculate the TEQ.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

Laboratory Notes:

[d]The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

[J]The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

< = not detected at a concentration exceeding the laboratory reporting limit

cPAH = carcinogenic polycyclic aromatic hydrocarbon

EPA = US Environmental Protection Agency

LRL = laboratory reporting limit

MTCA = Washington State Model Toxics Control Act

NE = not established

TEF = toxicity equivalency factor

TEQ = toxicity equivalent

WAC = Washington Administrative Code

Table 5
Groundwater Analytical Results for Chlorinated VOCs
UW Laundry Property
2901 27th Avenue South
Seattle, Washington

Boring ID	Sample ID	Sampled By	Date Sampled	Analytical Results[1] (micrograms per liter)					
				Tetrachloroethene	Trichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
P01	P01-20191030	SoundEarth	10/30/19	<1	<1	<1	<1	<1	<0.2
P02	P02-20191030			<1	<1	<1	<1	<1	<0.2
P03	P03-20191030			<1	<1	<1	<1	<1	<0.2
P11	P11-20191031		10/31/19	<1	<1	<1	<1	<1	<0.2
P12	P12-20191101		11/01/19	<1	<1	<1	<1	<1	<0.2
P13	P13-20191101			<1	<1	<1	<1	<1	<0.2
P14	P14-20191101			<1	<1	<1	<1	<1	<0.2
P16	P16-20191101			<1	<1	<1	<1	<1	<0.2
MTCA Cleanup Level for Groundwater				**5**[2]	**5**[2]	**16**[3]	**160**[3]	**400**[3]	**0.2**[2]

NOTES:

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Samples analyzed by EPA Method 8260C.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

[3]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Groundwater, Method B Standard Formula, Non cancer, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

< = not detected at a concentration exceeding the laboratory reporting limit

CLARC = Cleanup Levels and Risk Calculations

EPA = US Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

SoundEarth = SoundEarth Strategies, Inc.

VOC = volatile organic compound

WAC = Washington Administrative Code

Table 6
Groundwater Analytical Results for TPH and BTEX
UW Laundry Property
2901 27th Avenue South
Seattle, Washington

Boring ID	Sample ID	Sampled By	Date Sampled	Analytical Results (micrograms per liter)						
				GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
P11	P11-20191031	SoundEarth	10/31/19	--	190[x]	<250	--	--	--	--
P13	P13-20191101		11/01/19	--	**910**	**520**	--	--	--	--
P14	P14-20191101			<100	480[x]	<250	<1	<1	<1	<3
P16	P16-20191101			<100	**1,800**[x]	290[x]	<1	<1	<1	<3
MTCA Cleanup Level for Groundwater[4]				**1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Analyzed by Method NWTPH-Gx.

[2]Analyzed by Method NWTPH-Dx.

[3]Analyzed by EPA Method 8021B.

[4]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

Laboratory Note:

[x]The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

-- = no data

< = not detected at a concentration exceeding the laboratory reporting limit

BTEX = benzene, toluene, ethylbenzene, and total xylenes

DRPH = diesel-range petroleum hydrocarbons

EPA = US Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbons

SoundEarth = SoundEarth Strategies, Inc.

TPH = total petroleum hydrocarbons

WAC = Washington Administrative Code

ATTACHMENT A
BORING LOGS

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/30/19
Surface Conditions:	Asphalt
Location N/S:	9' S of Building 1 SE corner
Location E/W:	43' W of Building 1 SE corner
Reviewed by:	CJT
Date Completed:	10/30/19

BORING LOG | P01

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 13 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0			50	0.0			SM		**0.0-0.4 feet bgs: 3 inches of asphalt at surface.** **0.4-5.0 feet bgs: Silty SAND with gravel, brown, no hydrocarbon or solvent odor, moist, fill (20-60-20).**	
5			50	0.0	P01-05		SP		**5.0-10.0 feet bgs: Poorly graded, medium SAND with gravel, trace silt, brown, no hydrocarbon or solvent odor, moist, fill (5-80-15).**	
10			75	0.0	P01-10	X	SP		**10.0-12.0 feet bgs: Poorly graded, medium SAND with gravel, trace silt, brown, no hydrocarbon or solvent odor, moist (5-55-40).**	
15			15	0.0	P01-15	X	ML		**12.0-15.0 feet bgs: SILT with sand, gray, no hydrocarbon or solvent odor, moist (90-10-0).**	
20				0.0			GP		**15.0-20.0 feet bgs: Poorly graded GRAVEL with sand, gray/brown, no hydrocarbon or solvent odor, wet (0-10-90).** **Boring terminated at 20 feet bgs. Collect reconnaissance groundwater sample P01-20191030. Boring backfilled with bentonite.**	

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

bgs = below ground surface

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/30/19
Surface Conditions:	Concrete
Location N/S:	24' S of Building 1 south wall
Location E/W:	22' W of Building 2 NW corner
Reviewed by:	CJT
Date Completed:	10/30/19

BORING LOG | P02

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 15 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of concrete at surface.**	
							ML		**0.5-5.0 feet bgs: Sandy SILT, brown, no hydrocarbon or solvent odor, moist (70-30-0).**	
			90	0.0						
5				0.0	P02-05		SM		**5.0-8.0 feet bgs: Silty fine SAND, trace fine gravel, brown, no hydrocarbon or solvent odor, moist (35-60-5).**	
			100	0.0						
							ML		**8.0-15.0 feet bgs: Sandy SILT, trace gravel, gray, no hydrocarbon or solvent odor, moist (65-30-5).**	
10				0.0	P02-10	X				
			100	0.0						
15				0.0	P02-15	X	SP		**15.0-16.5 feet bgs: Poorly graded, medium SAND with silt, gray, no hydrocarbon or solvent odor, wet (10-90-0).**	▽
							ML		**16.5-20.0 feet bgs: SILT, trace fine sand and gravel, gray, no hydrocarbon or solvent odor, moist (90-5-5).**	
			100	0.0						
									Boring terminated at 20 feet bgs. Collect reconnaissance groundwater sample P02-20191030. Boring backfilled with bentonite.	
20				0.0	P02-20					

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**	
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	bgs = below ground surface	
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches		
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--			
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--			
Total Well Depth:	--	feet bgs	**Annular Seal:**	--			
State Well ID No.:	--		**Monument Type:**	--			

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/30/19
Surface Conditions:	Asphalt
Location N/S:	5.5' S of Building 1 south wall
Location E/W:	15' E of retaining wall
Reviewed by:	CJT
Date Completed:	10/30/19

BORING LOG | P03

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 18.5 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.4 feet bgs: 3 inches of asphalt at surface.**	
							ML		**0.4-5.0 feet bgs: Sandy SILT with fine gravel, gray, no hydrocarbon or solvent odor, moist (55-35-10).**	
			100	0.0						
5				0.0	P03-05		ML		**5.0-10.0 feet bgs: Sandy SILT with fine gravel, gray, no hydrocarbon or solvent odor, moist (75-15-10).**	
			100	0.0						
10				0.0	P03-10		ML		**10.0-13.0 feet bgs: Sandy SILT with fine gravel, gray, no hydrocarbon or solvent odor, moist (65-25-10).**	
			166							
				0.0	P03-13	X	ML		**13.0-19.0 feet bgs: Sandy SILT, trace gravel, gray, no hydrocarbon or solvent odor, wet at 18.5 feet bgs (70-25-5).**	
				0.0						
			166							
15				0.0						
					P03-16	X				
				0.0						
			166							
				0.0	P03-19				**Refusal at 19 feet bgs. Collect reconnaissance groundwater sample P03-20191030. Boring backfilled with bentonite.**	
20										

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**	
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**	
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches		
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--			
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--			
Total Well Depth:	--	feet bgs	**Annular Seal:**	--			
State Well ID No.:	--		**Monument Type:**	--			

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/30/19
Surface Conditions:	Asphalt
Location N/S:	103' S of Building 1 south wall
Location E/W:	15.5' E of retaining wall
Reviewed by:	CJT
Date Completed:	10/30/19

BORING LOG | P04

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.4 feet bgs: 3 inches of asphalt at surface.**	
							SM		**0.4-5.0 feet bgs: Silty SAND with gravel, gray, no hydrocarbon or solvent odor, moist (30-60-10).**	
			100	0.0						
5				0.0	P04-05	X	ML		**5.0-9.0 feet bgs: Sandy SILT with gravel, gray, no hydrocarbon or solvent odor, moist (45-15-40).**	
			125	0.0						
				0.0	P04-09		ML		**9.0-12.0 feet bgs: Sandy SILT with gravel, gray, no hydrocarbon or solvent odor, moist (60-15-25).**	
10				0.0						
			166							
				0.0	P04-12	X	ML		**12.0-15.0 feet bgs: Sandy SILT, trace gravel, gray, no hydrocarbon or solvent odor, moist (70-25-5).**	
				0.0						
			166							
15				0.0	P04-15	X	ML		**15.0-20.0 feet bgs: SILT with sand, trace gravel, gray, no hydrocarbon or solvent odor, moist (85-10-5).**	
			166							
					P04-18					
			100						**Refusal at 20 feet bgs. Boring backfilled with bentonite.**	
20				0.0	P04-20					

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

bgs = below ground surface

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/31/19
Surface Conditions:	Concrete
Location N/S:	86' S of Building 1 central south wall
Location E/W:	23' E of Building 2 west wall
Reviewed by:	CJT
Date Completed:	10/31/19

BORING LOG | P05

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of concrete at surface.**	
							ML		**0.5-3.0 feet bgs: Sandy SILT, trace fine gravel, brown, no hydrocarbon or solvent odor, moist (60-35-5).**	
			100	0.0						
							ML		**3.0-9.0 feet bgs: Sandy SILT, trace fine gravel, gray, no hydrocarbon or solvent odor, moist (75-20-5).**	
5				0.0	P05-05					
			125							
				0.0						
				0.0	P05-09	X	ML		**9.0-12.0 feet bgs: Sandy SILT, trace fine gravel, gray, no hydrocarbon or solvent odor, moist (65-30-5).**	
10				0.0						
			166							
				0.0	P05-12		ML		**12.0-15.0 feet bgs: Sandy SILT, trace fine gravel, gray, no hydrocarbon or solvent odor, moist (70-25-5).**	
				0.0						
			166							
15				0.0	P05-15	X	ML		**15.0-18.0 feet bgs: Sandy SILT with gravel, gray, no hydrocarbon or solvent odor, moist (50-35-15).**	
			166							
					P05-18		ML		**18.0-20.0 feet bgs: Sandy SILT with gravel, gray, no hydrocarbon or solvent odor, moist (70-20-10).**	
			100						**Refusal at 20 feet bgs. Boring backfilled with bentonite.**	
20					P05-20					

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

bgs = below ground surface

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/31/19
Surface Conditions:	Asphalt
Location N/S:	6' S of Building 1 NW corner
Location E/W:	12' W of Building 1 NW corner
Reviewed by:	CJT
Date Completed:	10/31/19

BORING LOG | P06

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0							GP		**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
									0.5-1.0 feet bgs: 1/2-inch-diameter GRAVEL (fill).	
							SP-SM		**1.0-5.0 feet bgs: Fine to medium SAND with silt and fine gravel, brown, no hydrocarbon or solvent odor, moist, fill (10-70-20).**	
			60	0.0						
5				0.0	P06-05		ML		**5.0-8.0 feet bgs: Sandy SILT, trace fine gravel, brown, no hydrocarbon or solvent odor, moist (55-40-5).**	
			100	0.0						
							ML		**8.0-10.0 feet bgs: Sandy SILT, trace fine gravel, gray, no hydrocarbon or solvent odor, moist (75-20-5).**	
10				0.0	P06-10	X	ML		**10.0-15.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, moist (80-20-0).**	
			100	0.0						
				0.0	P06-15	X				
15									**Boring terminated at 15 feet bgs. Boring backfilled with bentonite.**	
20										

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	15	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/31/19
Surface Conditions:	Asphalt
Location N/S:	114' S of Building 1 NW corner
Location E/W:	12' W of Building 1 NW corner
Reviewed by:	CJT
Date Completed:	10/31/19

BORING LOG | P07

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
							GP		**0.5-1.0 feet bgs: 1/2-inch-diameter GRAVEL (fill).**	
							ML		**1.0-5.0 feet bgs: Sandy SILT with gravel, brown, no hydrocarbon or solvent odor, moist (55-30-15).**	
			50	0.0						
5				0.0	P07-05		ML		**5.0-13.0 feet bgs: Fine to coarse sandy SILT with gravel, brown, no hydrocarbon or solvent odor, moist (55-30-15).**	
			100	0.0						
10				0.0	P07-10	X				
			100	0.0						
				0.0	P07-15	X	ML		**13.0-15.0 feet bgs: Sandy SILT with fine gravel, brown, no hydrocarbon or solvent odor, moist (70-20-10).**	
15									**Boring terminated at 15 feet bgs. Boring backfilled with bentonite.**	
20										

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	15	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/31/19
Surface Conditions:	Asphalt
Location N/S:	31' N of Building 1 SW corner
Location E/W:	12.5' W of Building 1 SW corner
Reviewed by:	CJT
Date Completed:	10/31/19

BORING LOG | P08

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
							SM		**0.5-1.0 feet bgs: Silty SAND with gravel, brown, no hydrocarbon or solvent odor, moist, fill (25-40-35).**	
							ML		**1.0-5.0 feet bgs: Sandy SILT with fine gravel, gray, no hydrocarbon or solvent odor, moist (55-35-10).**	
			60	0.0						
5				0.0	P08-05		ML		**5.0-13.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, moist (60-40-0).**	
			100	0.0						
10				0.0	P08-10	X				
			100	0.0						
				0.0	P08-15	X	ML		**13.0-15.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, moist (75-25-0).**	
15									**Boring terminated at 15 feet bgs. Boring backfilled with bentonite.**	
20										

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	15	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/31/19
Surface Conditions:	Asphalt
Location N/S:	41' N of south parking lot curb
Location E/W:	13.5' E of west parking lot curb
Reviewed by:	CJT
Date Completed:	10/31/19

BORING LOG | P09

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 20 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
							SP		**0.5-1.0 feet bgs: SAND with gravel, trace silt, brown, no hydrocarbon or solvent odor, moist, fill (5-60-35).**	
							ML		**1.0-5.0 feet bgs: Sandy SILT with gravel, gray/brown, no hydrocarbon or solvent odor, moist (60-30-10).**	
			100	0.0						
5				0.0	P09-05	X	ML		**5.0-13.0 feet bgs: Sandy SILT with gravel, gray, no hydrocarbon or solvent odor (65-25-10).**	
			70	0.0						
10				0.0	P09-10					
			60	0.0						
							ML		**13.0-15.0 feet bgs: SILT, trace sand, brown, no hydrocarbon or solvent odor, moist (95-5-0).**	
15				0.0	P09-15		ML		**15.0-19.0 feet bgs: Sandy SILT, gray/brown, no hydrocarbon or solvent odor, moist (80-20-0).**	
			100	0.0						
				0.0	P09-20		ML		**19.0-20.0 feet bgs: Sandy SILT, gray/brown, no hydrocarbon or solvent odor, wet (60-40-0).**	▽
20									**Boring terminated at 20 feet bgs. Reconnaissance groundwater sample P09-20191031 collected. Boring backfilled with bentonite.**	

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/31/19
Surface Conditions:	Asphalt
Location N/S:	90' N of SE light post
Location E/W:	43' W of east curb
Reviewed by:	CJT
Date Completed:	10/31/19

BORING LOG | P10

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 10.7 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0							GP		**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
									0.5-1.0 feet bgs: 1/2-inch-diameter GRAVEL (fill).	
							ML		**1.0-5.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, moist (65-35-0).**	
			60	0.0						
5				0.0	P10-05	X	ML		**5.0-8.0 feet bgs: Sandy SILT, trace gravel, gray, no hydrocarbon or solvent odor, moist (65-30-5).**	
			100	0.0						
							ML		**8.0-11.5 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, moist to wet at 10.7 feet bgs (75-25-0).**	
10				0.0	P10-10					▽
							ML		**11.5-13.0 feet bgs: Sandy SILT with organics, brown, no hydrocarbon or solvent odor, moist (70-30-0).**	
			100	0.0						
							ML		**13.0-15.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, moist (80-20-0).**	
15				0.0	P10-15		ML		**15.0-20.0 feet bgs: SILT with sand, gray, no hydrocarbon or solvent odor, wet (90-10-0).**	
			100	0.0						
									Boring terminated at 20 feet bgs. Reconnaissance groundwater sample P10-20191031 collected. Boring backfilled with bentonite.	
20				0.0	P10-20					

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	10/31/19
Surface Conditions:	Asphalt
Location N/S:	4.5' N of south curb
Location E/W:	23' W of SE parking lot corner
Reviewed by:	CJT
Date Completed:	10/31/19

BORING LOG | P11

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 11.4 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
							ML		**0.5-5.0 feet bgs: Sandy SILT with gravel, gray/brown, no hydrocarbon or solvent odor, moist (70-20-10).**	
			90	0.0						
5				0.0	P11-05		ML		**5.0-11.5 feet bgs: Sandy SILT with gravel, gray, no hydrocarbon or solvent odor, moist to wet at 11.4 feet bgs (65-20-15).**	
			100	0.0						
10				0.1	P11-10					
					P11-12	X	ML		**11.5-12.5 feet bgs: Sandy SILT with gravel, organics and brick fragments, black/brown, no hydrocarbon or solvent odor, moist (50-35-15).**	
			100	0.6			ML		**12.5-15.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, moist (70-30-0).**	
15				0.0	P11-15		SM		**15.0-16.5 feet bgs: Silty SAND, gray, no hydrocarbon or solvent odor, wet (35-65-0).**	
							ML		**16.5-20.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, wet (65-35-0).**	
			100	0.0						
									Boring terminated at 20 feet bgs. Reconnaissance groundwater sample P11-20191031 collected. Boring backfilled with bentonite.	
20				0.0	P11-20					

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

bgs = below ground surface

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Asphalt
Location N/S:	48' S of Building 1 entrance
Location E/W:	27' W of Building 1 east wall
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P12

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling 12.0 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
							ML		**0.5-1.0 feet bgs: 1/2-inch-diameter gravel.**	
			70	0.0			SM		**1.0-13.0 feet bgs: Silty, fine to medium SAND with fine gravel, brown, no hydrocarbon or solvent odor, moist (15-75-10).**	
5				0.0	P12-05	X				
			60	0.0						
10				0.0	P12-10	X				
			50	0.0						
							SM		**13.0-15.0 feet bgs: Silty, fine SAND with gravel, brown/copper, no hydrocarbon or solvent odor, moist (30-40-30).**	
15				0.0	P12-15	X	SM		**15.0-17.0 feet bgs: Silty, fine to medium SAND with gravel, gray, no hydrocarbon or solvent odor, moist (30-45-25).**	
			100	0.0			ML		**17.0-20.0 feet bgs: Sandy SILT, gray, no hydrocarbon or solvent odor, wet (85-15-0).**	
20				0.0	P12-20				**Boring terminated at 20 feet bgs. Reconnaissance groundwater sample P12-20191101 collected. Boring backfilled with bentonite.**	

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Concrete
Location N/S:	17' N of Building 1 north wall
Location E/W:	0' E of Building 1 east wall
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P13

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling 12.7 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.4 feet bgs: 4 inches of concrete at surface.**	
							SM		**0.4-3.0 feet bgs: Silty SAND with gravel, gray, no hydrocarbon or solvent odor, moist (25-40-35).**	
			80	0.0						
							ML		**3.0-6.0 feet bgs: SILT with fine to coarse sand and gravel, gray, no hydrocarbon or solvent odor, moist (80-10-10).**	
5				0.0	P13-05					
							SM		**6.0-8.0 feet bgs: Silty SAND with gravel, gray, no hydrocarbon or solvent odor, moist (30-40-30).**	
			100	0.0						
							ML		**8.0-10.0 feet bgs: Sandy SILT with gravel, wood and brick debris, black/gray, faint sweet odor, moist, fill (50-30-20).**	
10				1.2	P13-10	X	SM		**10.0-12.0 feet bgs: Silty SAND with gravel, gray/brown, no hydrocarbon or solvent odor, wet (30-45-25).**	
				0.0						
							ML		**12.0-15.0 feet bgs: Sandy SILT, trace gravel, brown, no hydrocarbon or solvent odor, moist (75-20-5).**	▽
			100	0.0						
				0.0	P13-15	X				
15									**Boring terminated at 15 feet bgs. Reconnaissance groundwater sample P13-20191101 collected. Boring backfilled with bentonite.**	
20										

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**	
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	bgs = below ground surface	
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches		
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--			
Total Boring Depth:	15	feet bgs	**Surface Seal:**	--			
Total Well Depth:	--	feet bgs	**Annular Seal:**	--			
State Well ID No.:	--		**Monument Type:**	--			

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Concrete
Location N/S:	10' N of container wall
Location E/W:	20.5' W of Building 1 west wall
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P14

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 13.5 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 5 inches of concrete at surface.**	
			20				SM		**0.5-5.0 feet bgs: Silty SAND with gravel, brown, no hydrocarbon or solvent odor, moist, fill (20-60-20).**	
5				0.0	P14-05		GP		**5.0-9.0 feet bgs: 1/4-inch-diameter GRAVEL, no hydrocarbon or solvent odor, moist, fill (0-0-100).**	
			30							
							SM		**9.0-10.0 feet bgs: Silty SAND with gravel, brown, no hydrocarbon or solvent odor, moist, fill (20-60-20).**	
10				0.0	P14-10	X	GP		**10.0-13.5 feet bgs: 1/4-inch-diameter GRAVEL, no hydrocarbon or solvent odor, moist, fill (0-0-100).**	
			100	0.0						▽
							SM		**13.5-15.0 feet bgs: Silty SAND with gravel, gray, no hydrocarbon or solvent odor, wet (20-60-20).**	
15				0.2	P14-15	X	ML		**15.0-20.0 feet bgs: Sandy SILT with fine gravel, brown, no hydrocarbon or solvent odor, wet (70-20-10).**	
			30							
20				0.0	P14-20				**Boring terminated at 20 feet bgs. Reconnaissance groundwater sample P14-20191101 collected. Boring backfilled with bentonite.**	

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

bgs = below ground surface

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Concrete
Location N/S:	15" N of container wall
Location E/W:	18' E of Building 1 loading dock
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P15

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 9.5 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of concrete at surface.**	
			40	0.0			SM		**0.5-5.0 feet bgs: Silty, fine to medium SAND with gravel, brown, no hydrocarbon or solvent odor, moist (20-45-35).**	
5				0.0	P15-05		SM		**5.0-13.5 feet bgs: Silty, fine to medium SAND with gravel, brown, no hydrocarbon or solvent odor, moist to wet at 9.5 feet bgs (15-70-15).**	
			60							
10				0.0	P15-10	X				▽
			100				ML		**13.5-15.0 feet bgs: SILT with fine to coarse sand and rootlets, gray, no hydrocarbon or solvent odor, wet (90-10-0).**	
15					P15-15	X	SM		**15.0-18.0 feet bgs: Silty, fine to coarse SAND, brown, no hydrocarbon or solvent odor, wet (30-70-0).**	
			100	0.0			ML		**18.0-20.0 feet bgs: SILT with sand, trace fine gravel and rootlets, gray, no hydrocarbon or solvent odor, wet (85-10-5).**	
20				0.0	P15-20				**Boring terminated at 20 feet bgs. Reconnaissance groundwater sample P15-20191101 collected. Boring backfilled with bentonite.**	

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**	
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	bgs = below ground surface	
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches		
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--			
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--			
Total Well Depth:	--	feet bgs	**Annular Seal:**	--			
State Well ID No.:	--		**Monument Type:**	--			

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Concrete
Location N/S:	22.5' N of north container wall
Location E/W:	20.5' W of west loading dock wall
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P16

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling: 11 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of concrete at surface.**	
			60	0.0			SM		**0.5-5.0 feet bgs: Silty, fine to medium SAND with gravel, brown, no hydrocarbon or solvent odor, moist, fill (20-50-30).**	
5				0.0	P16-05		GP		**5.0-6.0 feet bgs: 1/4-inch-diameter GRAVEL, no hydrocarbon or solvent odor, moist, fill (0-0-100).**	
			40	0.0			SM		**6.0-10.0 feet bgs: Silty, fine to medium SAND with fine gravel and wood fragments, brown, no hydrocarbon or solvent odor, moist, fill (20-70-10).**	
10				0.0	P16-10	X	SM		**10.0-15.0 feet bgs: Silty, fine SAND with gravel, wood debris, gray, faint sweet odor, wet at 11 feet bgs, fill (20-70-10).**	▽
			60							
15				6.1	P16-15	X	SM		**15.0-17.5 feet bgs: Silty, fine to medium SAND with gravel and wood fragments, gray, no hydrocarbon or solvent odor, wet, fill (20-45-35).**	
			100	0.1			ML		**17.5-20.0 feet bgs: Sandy SILT, brown, no hydrocarbon or solvent odor, moist (85-15-0).**	
20				0.0	P16-20	X				
									Boring terminated at 20 feet bgs. Reconnaissance groundwater sample P16-20191101 collected. Boring backfilled with bentonite.	

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**	
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	bgs = below ground surface	
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches		
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--			
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--			
Total Well Depth:	--	feet bgs	**Annular Seal:**	--			
State Well ID No.:	--		**Monument Type:**	--			

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Asphalt
Location N/S:	17' S of parking lot north boundary
Location E/W:	18' W of parking lot east boundary
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P17

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
							SM		**0.5-7.0 feet bgs: Silty, fine SAND with gravel, brown, no hydrocarbon or solvent odor, moist (35-55-10).**	
			90	0.0						
5				0.0	P17-05	X				
							SM		**7.0-12.0 feet bgs: Silty, fine SAND with fine gravel and rootlets, brown, no hydrocarbon or solvent odor, moist (15-70-15).**	
			100	0.0						
10				0.0	P17-10					
							ML		**12.0-17.5 feet bgs: Sandy SILT with fine gravel and rootlets, gray/brown, no hydrocarbon or solvent odor, moist (70-20-10).**	
			100	0.0						
15				0.0	P17-15					
			100	0.0			ML		**17.5-20.0 feet bgs: SILT with sand and rootlets, gray, no hydrocarbon or solvent odor, moist (90-10-0).**	
20				0.0	P17-20					

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	25	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

bgs = below ground surface

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Asphalt
Location N/S:	17' S of parking lot north boundary
Location E/W:	18' W of parking lot east boundary
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P17

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
			100	0.0			CL		**20.0-25.0 feet bgs: CLAY, blue/gray, no hydrocarbon or solvent odor, moist (100-0-0).**	
25				0.0	P17-25				**Boring terminated at 25 feet bgs. Boring backfilled with bentonite.**	
30										
35										
40										

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	25	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Asphalt
Location N/S:	22' N of parking lot south boundary
Location E/W:	28' E of parking lot west boundary
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P18

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
0									**0.0-0.5 feet bgs: 6 inches of asphalt at surface.**	
							ML		**0.5-7.0 feet bgs: Sandy SILT with gravel, gray, no hydrocarbon or solvent odor, moist (70-15-15).**	
			10							
5				0.0	P18-05	X				
			100	0.1			ML		**7.0-12.5 feet bgs: Sandy SILT with gravel, brown, no hydrocarbon or solvent odor, moist (65-20-15).**	
10				0.0	P18-10					
			100	0.0			ML		**12.5-17.0 feet bgs: Sandy SILT, brown, no hydrocarbon or solvent odor, moist (70-30-0).**	
15				0.0	P18-15					
			100	0.0			ML		**17.0-20.0 feet bgs: Sandy SILT, brown, no hydrocarbon or solvent odor, moist (85-15-0).**	
20				0.0	P18-20					

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	24	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

bgs = below ground surface

SoundEarth Strategies

Project:	UW Laundry Property
Project Number:	0987-022
Logged by:	KJL
Date Started:	11/01/19
Surface Conditions:	Asphalt
Location N/S:	22' N of parking lot south boundary
Location E/W:	28' E of parking lot west boundary
Reviewed by:	CJT
Date Completed:	11/01/19

BORING LOG | P18

Site Address: 2901 27th Avenue South, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Group Symbol	Graphic	Lithologic Description (ASTM texture, density, color, odor, moisture, supplemental descriptors, estimated grain size distribution) Field-estimated grain size distribution by volume (% Fines - % Sand - % Gravel)	Well Detail/ Water Depth
							ML		**20.0-22.0 feet bgs: Sandy SILT, brown, no hydrocarbon or solvent odor, moist (85-15-0).**	
			125	0.0			ML		**22.0-24.0 feet bgs: SILT with fine to coarse sand, trace fine gravel, brown, no hydrocarbon or solvent odor, moist (85-10-5).**	
				0.0	P18-24					
25									**Boring terminated at 24 feet bgs. Boring backfilled with bentonite.**	
30										
35										
40										

Drilling Co./Driller:	ESN / Marty		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs	**bgs = below ground surface**
Sampler Type:	Plastic sleeve		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	24	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

ATTACHMENT B
LABORATORY ANALYTICAL REPORTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
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November 13, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

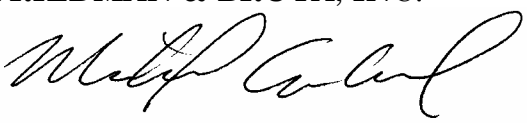
Dear Ms Tochilin:

Included are the results from the testing of material submitted on October 30, 2019 from the SOU_0987-022_ 20191030, F&BI 910603 project. There are 26 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SOU1113R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 30, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191030, F&BI 910603 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
910603 -01	P01-05
910603 -02	P01-10
910603 -03	P01-15
910603 -04	P02-05
910603 -05	P02-10
910603 -06	P02-15
910603 -07	P02-20
910603 -08	P03-05
910603 -09	P03-10
910603 -10	P03-13
910603 -11	P01-20191030
910603 -12	P02-20191030
910603 -13	P03-20191030
910603 -14	P03-16
910603 -15	P03-19
910603 -16	P04-05
910603 -17	P04-09
910603 -18	P04-12
910603 -19	P04-15
910603 -20	P04-18
910603 -21	P04-20

A 6020B internal standard failed the acceptance criteria for sample P04-05. The sample was diluted and reanalyzed with acceptable results. Both data sets were reported.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	P04-05	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-16
Date Analyzed:	11/06/19	Data File:	910603-16.078
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.12
Cadmium	<1
Chromium	23.4 J
Lead	2.93
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P04-05	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-16 x5
Date Analyzed:	11/06/19	Data File:	910603-16 x5.171
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	25.6

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	I9-708 mb2
Date Analyzed:	11/06/19	Data File:	I9-708 mb2.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P04-05	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/05/19	Lab ID:	910603-16 1/5
Date Analyzed:	11/06/19	Data File:	110617.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	31	163
Benzo(a)anthracene-d12	83	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/05/19	Lab ID:	09-2714 mb 1/5
Date Analyzed:	11/06/19	Data File:	110607.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	31	163
Benzo(a)anthracene-d12	92	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P01-10	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-02
Date Analyzed:	11/06/19	Data File:	110628.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	145
Toluene-d8	93	55	145
4-Bromofluorobenzene	94	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P01-15	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-03
Date Analyzed:	11/06/19	Data File:	110629.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	62	145
Toluene-d8	91	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P02-10	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/11/19	Lab ID:	910603-05
Date Analyzed:	11/11/19	Data File:	111109.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	145
Toluene-d8	102	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P02-15	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-06
Date Analyzed:	11/06/19	Data File:	110630.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	145
Toluene-d8	92	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P03-13	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-10
Date Analyzed:	11/06/19	Data File:	110631.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	62	145
Toluene-d8	89	55	145
4-Bromofluorobenzene	92	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P03-16	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-14
Date Analyzed:	11/06/19	Data File:	110632.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	145
Toluene-d8	89	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P04-12	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-18
Date Analyzed:	11/06/19	Data File:	110633.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	62	145
Toluene-d8	89	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P04-15	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	910603-19
Date Analyzed:	11/06/19	Data File:	110634.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	62	145
Toluene-d8	89	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/06/19	Lab ID:	09-2683 mb
Date Analyzed:	11/06/19	Data File:	110608.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	62	145
Toluene-d8	112	55	145
4-Bromofluorobenzene	87	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/11/19	Lab ID:	09-2754 mb
Date Analyzed:	11/11/19	Data File:	111108.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	145
Toluene-d8	101	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P01-20191030	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/05/19	Lab ID:	910603-11
Date Analyzed:	11/05/19	Data File:	110537.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	57	121
Toluene-d8	115	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P02-20191030	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/11/19	Lab ID:	910603-12
Date Analyzed:	11/11/19	Data File:	111112.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P03-20191030	Client:	SoundEarth Strategies
Date Received:	10/30/19	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/05/19	Lab ID:	910603-13
Date Analyzed:	11/05/19	Data File:	110539.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	57	121
Toluene-d8	115	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191030
Date Extracted:	11/05/19	Lab ID:	09-2682 mb
Date Analyzed:	11/05/19	Data File:	110509.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	108	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 11/13/19
Date Received: 10/30/19
Project: SOU_0987-022_ 20191030, F&BI 910603

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 910613-113 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<1 ca	87	86	75-125	1
Cadmium	mg/kg (ppm)	5	<1	95	93	75-125	2
Chromium	mg/kg (ppm)	20	11.3	84 b	74 b	75-125	13 b
Lead	mg/kg (ppm)	10	4.27	85	78	75-125	9
Mercury	mg/kg (ppm	5	<1 ca	86	87	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	98	80-120
Cadmium	mg/kg (ppm)	5	97	80-120
Chromium	mg/kg (ppm)	20	107	80-120
Lead	mg/kg (ppm)	10	97	80-120
Mercury	mg/kg (ppm)	5	84	80-120

Date of Report: 11/13/19
Date Received: 10/30/19
Project: SOU_0987-022_ 20191030, F&BI 910603

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270D SIM

Laboratory Code: 911064-02 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	81	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	83	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	66	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	71	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	66	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	69	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	69	31-146

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	86	88	51-115	2
Chrysene	mg/kg (ppm)	0.17	90	92	55-129	2
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	75	72	56-123	4
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	75	78	54-131	4
Benzo(a)pyrene	mg/kg (ppm)	0.17	67	69	51-118	3
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	67	68	49-148	1
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	66	71	50-141	7

Date of Report: 11/13/19
Date Received: 10/30/19
Project: SOU_0987-022_ 20191030, F&BI 910603

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 911016-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	39	41	10-138	5
Chloroethane	mg/kg (ppm)	2.5	<0.5	50	52	10-176	4
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	53	58	10-160	9
Methylene chloride	mg/kg (ppm)	2.5	<0.5	59	63	10-156	7
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	57	61	14-137	7
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	62	65	19-140	5
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	66	70	25-135	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	70	72	12-160	3
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	63	65	10-156	3
Trichloroethene	mg/kg (ppm)	2.5	<0.02	69	72	21-139	4
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	80	84	20-133	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	90	22-139
Chloroethane	mg/kg (ppm)	2.5	96	9-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	99	47-128
Methylene chloride	mg/kg (ppm)	2.5	92	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	96	67-129
1,1-Dichloroethane	mg/kg (ppm)	2.5	94	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	97	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	88	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	96	62-131
Trichloroethene	mg/kg (ppm)	2.5	84	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	83	72-114

Date of Report: 11/13/19
Date Received: 10/30/19
Project: SOU_0987-022_ 20191030, F&BI 910603

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 911115-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	62	52	10-138	18
Chloroethane	mg/kg (ppm)	2.5	<0.5	79	68	10-176	15
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	80	72	10-160	11
Methylene chloride	mg/kg (ppm)	2.5	<0.5	101	92	10-156	9
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	88	79	14-137	11
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	95	86	19-140	10
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	96	86	25-135	11
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	107	97	12-160	10
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	101	91	10-156	10
Trichloroethene	mg/kg (ppm)	2.5	<0.02	112	104	21-139	7
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	99	90	20-133	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	77	22-139
Chloroethane	mg/kg (ppm)	2.5	87	9-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	85	47-128
Methylene chloride	mg/kg (ppm)	2.5	93	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	86	67-129
1,1-Dichloroethane	mg/kg (ppm)	2.5	91	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	91	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	99	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	95	62-131
Trichloroethene	mg/kg (ppm)	2.5	97	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	98	72-114

Date of Report: 11/13/19
Date Received: 10/30/19
Project: SOU_0987-022_ 20191030, F&BI 910603

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 911010-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	10	122	36-166
Chloroethane	ug/L (ppb)	50	<1	124	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	122	60-136
Methylene chloride	ug/L (ppb)	50	<5	119	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	115	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	120	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	27	120 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	124	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	118	60-146
Trichloroethene	ug/L (ppb)	50	1.5	116	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	87	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	112	103	50-154	8
Chloroethane	ug/L (ppb)	50	117	109	58-146	7
1,1-Dichloroethene	ug/L (ppb)	50	116	110	67-136	5
Methylene chloride	ug/L (ppb)	50	108	102	39-148	6
trans-1,2-Dichloroethene	ug/L (ppb)	50	108	103	68-128	5
1,1-Dichloroethane	ug/L (ppb)	50	108	104	79-121	4
cis-1,2-Dichloroethene	ug/L (ppb)	50	110	106	80-123	4
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	101	98	73-132	3
1,1,1-Trichloroethane	ug/L (ppb)	50	106	100	81-125	6
Trichloroethene	ug/L (ppb)	50	95	94	79-113	1
Tetrachloroethene	ug/L (ppb)	50	93	91	76-121	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY ME 10/30/19

VSS/D041/UW3

Page # 1 of 3

Send Report to Clare Tochilin 910603

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS ~~Hold~~

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270				Notes
																X-perCT
P01-05	P01	5	01	10/30/19	0940	Soil	5									11/4/19 ME
P01-10	P01	10	02		0950		5				X					
P01-15	P01	15	03		1000		5				X					
P02-05	P02	5	04		1140		5									
P02-10	P02	10	05		1155		5				X					
P02-15	P02	15	06		1200		5				X					
P02-20	P02	20	07		1210		5									
P03-05	P03	5	08		1310		5									Samples received at 4 °C
P03-10	P03	10	09		1320		5									
P03-13	P03	13	10	↓	1330	↓	5				X					

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kyle Ebersz	SES	10/30/19	1750
Received by:	Isaac Lessig	FBI	10/30/19	17:50
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SAMPLE CHAIN OF CUSTODY ME 10/30/19

Page # 2 of 2 DOY

Send Report to _Clare Tochilin 910603

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS HOLD

TURNAROUND TIME
Standard (2 Weeks) VW3
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270				Notes
P01-20191030	P01	–	11	10/30/19	1030	H2O	7				X					
P02-20191030	P02	–	12	↓	1540	↓	↓				X					
P03-20191030	P03	–	13	↓	1610	↓	↓				X					

Hot to dry

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kyle Loomis	SES	10/30/19	1750
Received by:	Isaac Lessig	FBI	10/30/19	17:50
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 12, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

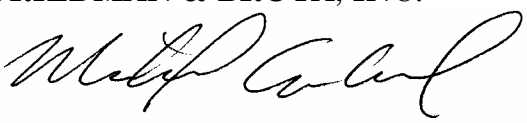
Dear Ms Tochilin:

Included are the results from the testing of material submitted on November 1, 2019 from the SOU_0987-022_ 20191101, F&BI 911015 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SOU1112R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191101, F&BI 911015 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911015 -01	P09-20191031
911015 -02	P10-20191031
911015 -03	P11-20191031

Several 8260C compounds failed below the acceptance criteria in the matrix spike sample. The laboratory control samples met the acceptance criteria, therefore the data were likely due to sample matrix effect.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P11-20191031	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911015-03
Date Analyzed:	11/07/19	Data File:	110649.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	89	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	09-2748 mb
Date Analyzed:	11/06/19	Data File:	110609.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	57	121
Toluene-d8	114	63	127
4-Bromofluorobenzene	90	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 11/12/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911015

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 911041-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	74	36-166
Chloroethane	ug/L (ppb)	50	<1	77	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	57 vo	60-136
Methylene chloride	ug/L (ppb)	50	<5	71	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	46 vo	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	68 vo	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	61 vo	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	72	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	51 vo	60-146
Trichloroethene	ug/L (ppb)	50	<1	26 vo	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	12	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	108	103	50-154	5
Chloroethane	ug/L (ppb)	50	109	107	58-146	2
1,1-Dichloroethene	ug/L (ppb)	50	105	105	67-136	0
Methylene chloride	ug/L (ppb)	50	94	94	39-148	0
trans-1,2-Dichloroethene	ug/L (ppb)	50	99	100	68-128	1
1,1-Dichloroethane	ug/L (ppb)	50	101	101	79-121	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	102	103	80-123	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	102	102	73-132	0
1,1,1-Trichloroethane	ug/L (ppb)	50	101	100	81-125	1
Trichloroethene	ug/L (ppb)	50	96	97	79-113	1
Tetrachloroethene	ug/L (ppb)	50	97	98	76-121	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

911015

SAMPLE CHAIN OF CUSTODY ME 11-01-19

A041 VW31

Page # _____ of _____

Send Report to _Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS *(signature)* Clare Toch

PROJECT NAME/NO.: UW Laundry Property

PO #: 0987-022

REMARKS: ~~HOLD~~

TURNAROUND TIME
(Standard (2 Weeks))
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	✓ VOCs by 8260	SVOCs by 8270				Notes
P09-20191031	P09	—	01A-C	10/31/19	1425	H_2O	7									x - per CT 11/4/19 ME
P10-20191031	P10	—	02	10/31/19	1550	H_2O	7									
P11-20191031	P11	—	03	10/31/19	1710	H_2O	7				x					

CT 11/1/19

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Clare Tochilin	SoundEarth	11/1/19	0900
Received by:		Darrell Herzog	FedEx SDC	11/1/19	17:57
Relinquished by:					
Received by:		D d VO	F&BI	11-1-19	14:00

FORMS\COC\COC.DOC

SAMPLE CHAIN OF CUSTODY ME 10/30/19

USS
DOE

Page # 3 of 3

Send Report to Clare Tochilin 910603

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.: UW Laundry Property

PO #: 0987-022

REMARKS: HOLD

TURNAROUND TIME
Standard (2 Weeks) VW3
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5 Metals		Notes
P03-16	P03	16	14	10/30/19	1340	Soil	5				X					
P03-19	P03	19	15		1350											
P04-05	P04	5	16		1435								X	X		
P04-09	P04	9	17		1440											
P04-12	P04	12	18		1455						X					
P04-15	P04	15	19		1500						X					
P04-18	P04	18	20		1510											Samples received at 4 °C
P04-20	P04	20	21		1525											

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kyle Loewen	SES	10/30/19	1750
Received by:	Isaac Lessig	FBI	10/30/19	17:50
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 18, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Tochilin:

Included are the additional results from the testing of material submitted on November 1, 2019 from the SOU_0987-022_ 20191101, F&BI 911015 project. There are 4 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU1118R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191101, F&BI 911015 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911015 -01	P09-20191031
911015 -02	P10-20191031
911015 -03	P11-20191031

All quality control requirements were acceptable.

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911015
Date Extracted: 11/14/19
Date Analyzed: 11/14/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
P11-20191031 911015-03	190 x	<250	114
Method Blank 09-2808 MB	<50	<250	117

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911015

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	124	108	63-142	14

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

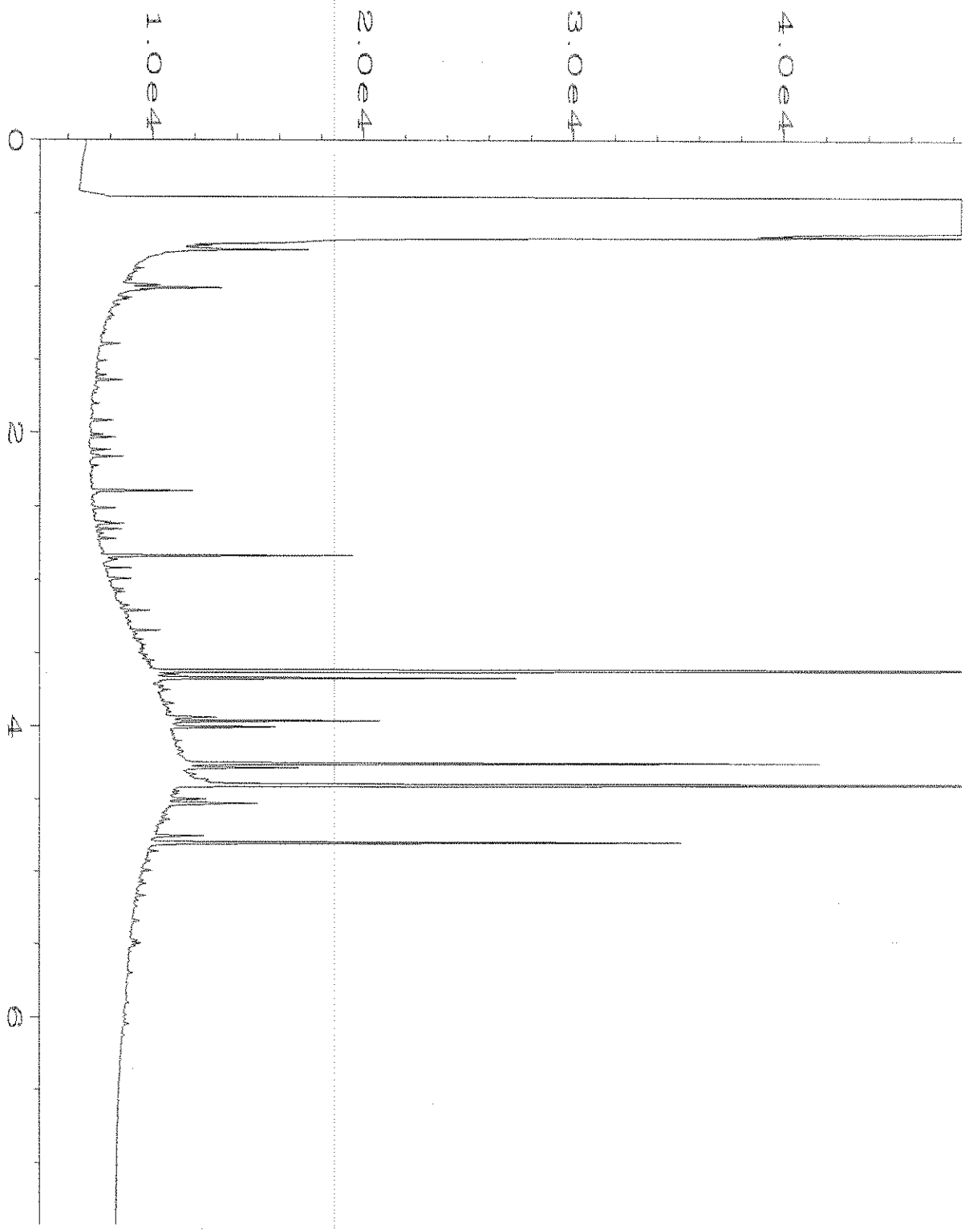
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

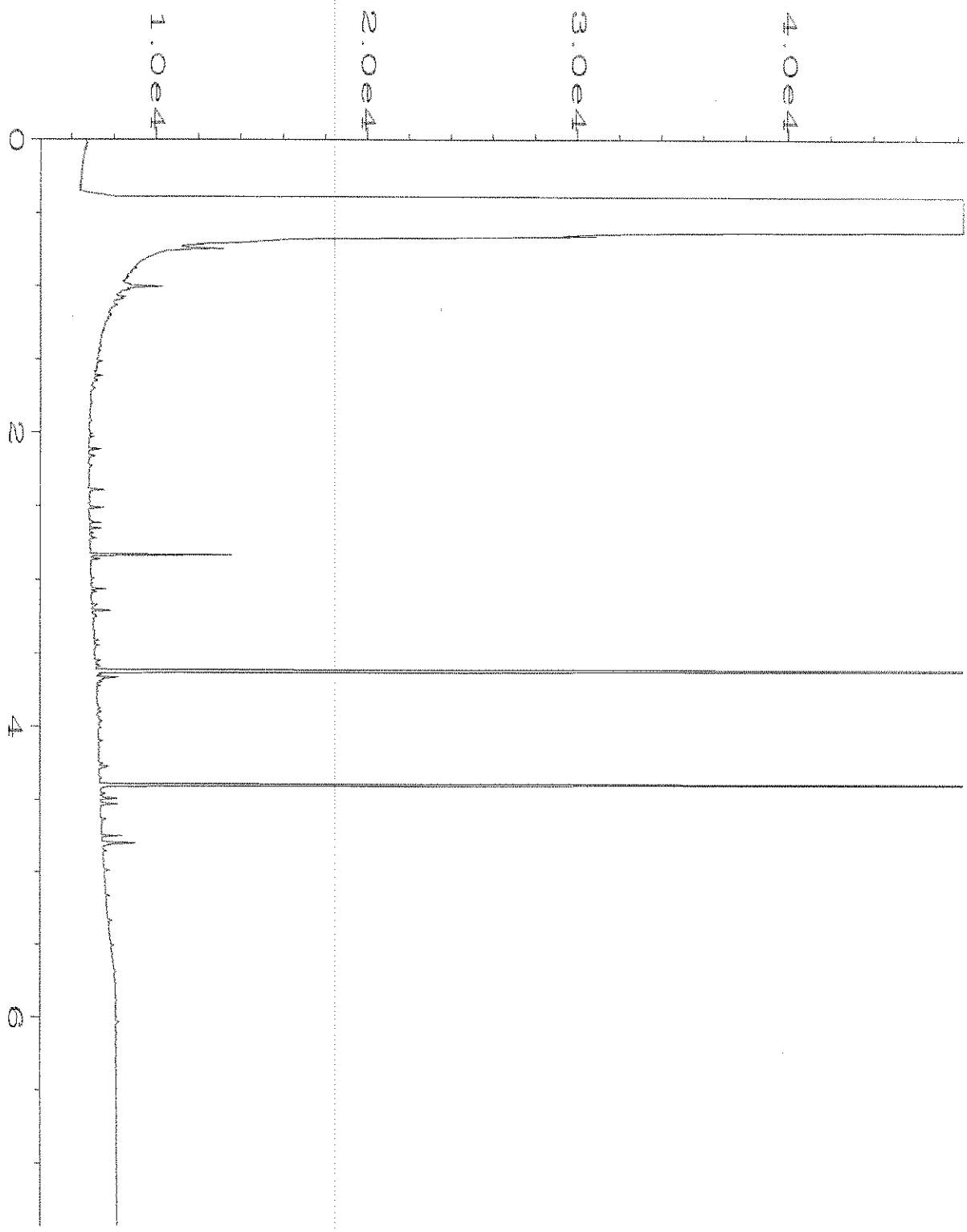
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

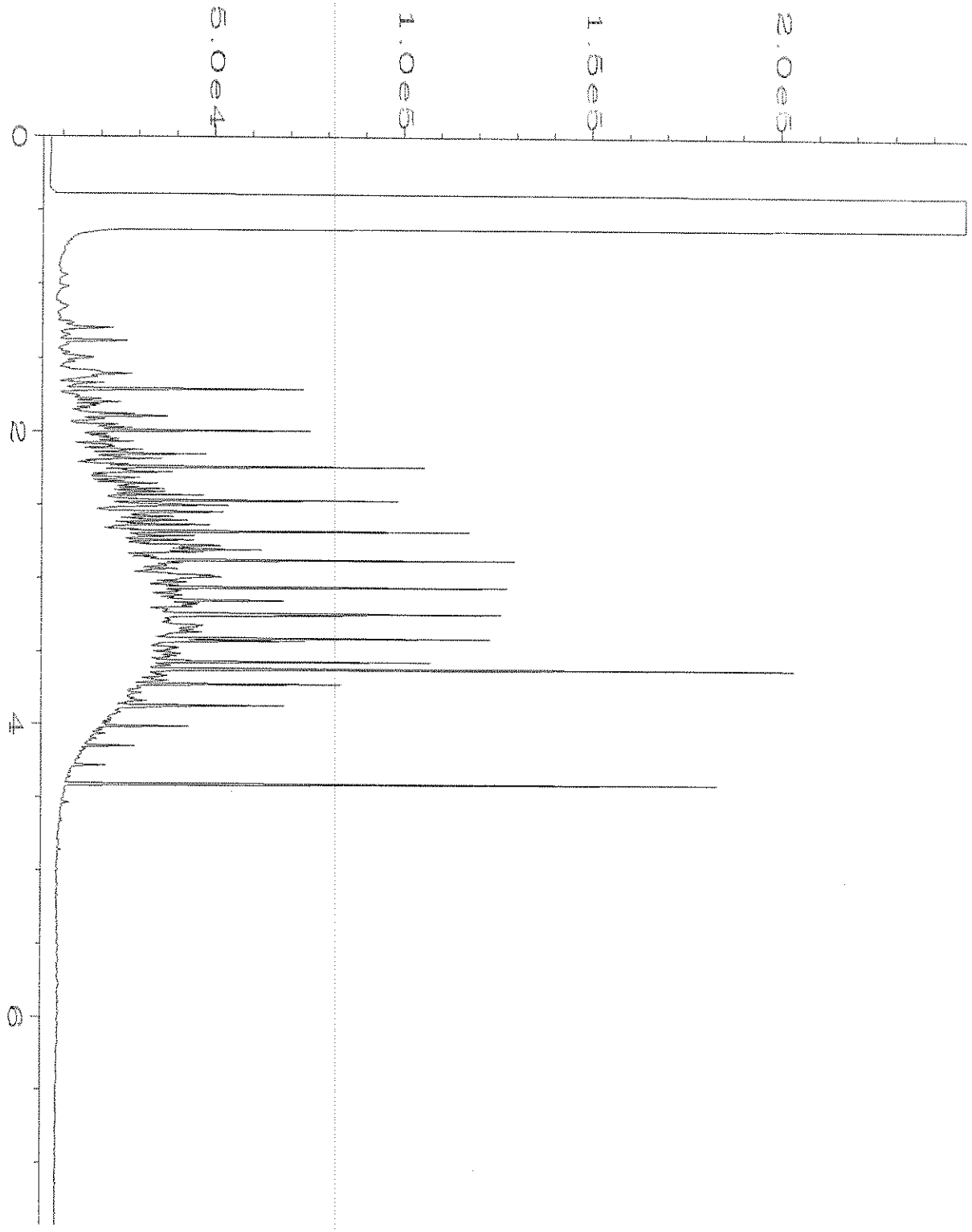


Data File Name	: C:\HPCHEM\1\DATA\11-14-19\027F0301.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 27
Sample Name	: 911015-03	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 14 Nov 19 12:53 PM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 01:09 PM	Analysis Method	: DEFAULT.MTH



Data File Name : C:\HPCHEM\1\DATA\11-14-19\024F0301.D
Operator : TL
Instrument : GC1
Sample Name : 09-2808 mb
Run Time Bar Code:
Acquired on : 14 Nov 19 12:18 PM
Report Created on: 14 Nov 19 01:10 PM

Page Number : 1
Vial Number : 24
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name	: C:\HPCHEM\1\DATA\11-14-19\003F0201.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 3
Sample Name	: 500 Dx 58-146B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 14 Nov 19 05:53 AM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 01:10 PM	Analysis Method	: DEFAULT.MTH

911015

SAMPLE CHAIN OF CUSTODY ME 11-01-19

A041 VW31

Page # _____ of _____

Send Report to _Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Tochilin

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS ~~Hold~~

TURNAROUND TIME
(Standard (2 Weeks))
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
P09-20191031	P09	—	01A-C	10/31/19	1425	H_2O	7									X - per CT
P10-20191031	P10	—	02	10/31/19	1550	H_2O	7									11/4/19
P11-20191031	P11	—	03	10/31/19	1710	H_2O	7	(X)			X					ME
																(X) - per CT
																11/13/19 24hr TAT
																ME

CT 11/1/19

Samples received at 4°C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	SoundEarth	11/1/19	0900
Received by:	Darrell Herzog	FedEx SDC	11/1/19	17:57
Relinquished by:				
Received by:	D d VO	F+BI	11-1-19	14:00

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 13, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Tochilin:

Included are the results from the testing of material submitted on November 1, 2019 from the SOU_0987-022_ 20191101, F&BI 911016 project. There are 26 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU1113R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191101, F&BI 911016 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911016 -01	P05-05
911016 -02	P05-09
911016 -03	P05-12
911016 -04	P05-15
911016 -05	P05-18
911016 -06	P05-20
911016 -07	P06-05
911016 -08	P06-10
911016 -09	P06-15
911016 -10	P07-05
911016 -11	P07-10
911016 -12	P07-15
911016 -13	P08-05
911016 -14	P08-10
911016 -15	P08-15
911016 -16	P09-05
911016 -17	P09-10
911016 -18	P09-15
911016 -19	P09-20
911016 -20	P10-05
911016 -21	P10-10
911016 -22	P10-15
911016 -23	P10-20
911016 -24	P11-05
911016 -25	P11-10
911016 -26	P11-12
911016 -27	P11-15
911016 -28	P11-20

A 6020B internal standard failed the acceptance. The samples were diluted and reanalyzed with acceptable results. Both data sets were reported.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	P09-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-16
Date Analyzed:	11/06/19	Data File:	911016-16.079
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.13
Cadmium	<1
Chromium	28.7 J
Lead	7.26
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P09-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-16 x5
Date Analyzed:	11/06/19	Data File:	911016-16 x5.172
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	33.8

Analysis For Total Metals By EPA Method 6020B

Client ID:	P10-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-20
Date Analyzed:	11/06/19	Data File:	911016-20.080
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.13
Cadmium	<1
Chromium	41.9 J
Lead	7.47
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P10-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-20 x5
Date Analyzed:	11/06/19	Data File:	911016-20 x5.173
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	52.1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P11-12	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-26
Date Analyzed:	11/06/19	Data File:	911016-26.081
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.59
Cadmium	<1
Chromium	23.7 J
Lead	101
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P11-12	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-26 x5
Date Analyzed:	11/06/19	Data File:	911016-26 x5.174
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	23.8

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	I9-708 mb2
Date Analyzed:	11/06/19	Data File:	I9-708 mb2.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P09-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911016-16 1/5
Date Analyzed:	11/06/19	Data File:	110618.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	31	163
Benzo(a)anthracene-d12	87	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P10-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911016-20 1/5
Date Analyzed:	11/06/19	Data File:	110619.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	78	31	163
Benzo(a)anthracene-d12	83	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P11-12	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911016-26 1/250
Date Analyzed:	11/06/19	Data File:	110620.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	156 d	31	163
Benzo(a)anthracene-d12	104 d	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.5
Chrysene	<0.5
Benzo(a)pyrene	<0.5
Benzo(b)fluoranthene	<0.5
Benzo(k)fluoranthene	<0.5
Indeno(1,2,3-cd)pyrene	<0.5
Dibenz(a,h)anthracene	<0.5

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	09-2714 mb 1/5
Date Analyzed:	11/06/19	Data File:	110607.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	31	163
Benzo(a)anthracene-d12	92	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P05-09	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-02
Date Analyzed:	11/06/19	Data File:	110611.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	62	145
Toluene-d8	114	55	145
4-Bromofluorobenzene	92	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P05-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-04
Date Analyzed:	11/06/19	Data File:	110612.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	62	145
Toluene-d8	112	55	145
4-Bromofluorobenzene	92	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P06-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-08
Date Analyzed:	11/06/19	Data File:	110613.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	62	145
Toluene-d8	108	55	145
4-Bromofluorobenzene	90	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P06-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-09
Date Analyzed:	11/06/19	Data File:	110614.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	62	145
Toluene-d8	113	55	145
4-Bromofluorobenzene	100	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P07-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-11
Date Analyzed:	11/06/19	Data File:	110615.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	62	145
Toluene-d8	110	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P07-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-12
Date Analyzed:	11/06/19	Data File:	110616.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	62	145
Toluene-d8	107	55	145
4-Bromofluorobenzene	99	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P08-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-14
Date Analyzed:	11/11/19	Data File:	111110.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	145
Toluene-d8	102	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P08-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-15
Date Analyzed:	11/11/19	Data File:	111111.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	145
Toluene-d8	103	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P11-12	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911016-26
Date Analyzed:	11/06/19	Data File:	110627.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	62	145
Toluene-d8	93	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	09-2683 mb
Date Analyzed:	11/06/19	Data File:	110608.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	62	145
Toluene-d8	112	55	145
4-Bromofluorobenzene	87	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911016

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 910613-113 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<1 ca	87	86	75-125	1
Cadmium	mg/kg (ppm)	5	<1	95	93	75-125	2
Chromium	mg/kg (ppm)	20	11.3	84 b	74 b	75-125	13 b
Lead	mg/kg (ppm)	10	4.27	85	78	75-125	9
Mercury	mg/kg (ppm	5	<1 ca	86	87	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	98	80-120
Cadmium	mg/kg (ppm)	5	97	80-120
Chromium	mg/kg (ppm)	20	107	80-120
Lead	mg/kg (ppm)	10	97	80-120
Mercury	mg/kg (ppm)	5	84	80-120

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911016

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270D SIM

Laboratory Code: 911064-02 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	81	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	83	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	66	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	71	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	66	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	69	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	69	31-146

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	86	88	51-115	2
Chrysene	mg/kg (ppm)	0.17	90	92	55-129	2
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	75	72	56-123	4
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	75	78	54-131	4
Benzo(a)pyrene	mg/kg (ppm)	0.17	67	69	51-118	3
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	67	68	49-148	1
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	66	71	50-141	7

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911016

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 911016-11 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	39	41	10-138	5
Chloroethane	mg/kg (ppm)	2.5	<0.5	50	52	10-176	4
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	53	58	10-160	9
Methylene chloride	mg/kg (ppm)	2.5	<0.5	59	63	10-156	7
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	57	61	14-137	7
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	62	65	19-140	5
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	66	70	25-135	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	70	72	12-160	3
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	63	65	10-156	3
Trichloroethene	mg/kg (ppm)	2.5	<0.02	69	72	21-139	4
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	80	84	20-133	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	90	22-139
Chloroethane	mg/kg (ppm)	2.5	96	9-163
1,1-Dichloroethene	mg/kg (ppm)	2.5	99	47-128
Methylene chloride	mg/kg (ppm)	2.5	92	42-132
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	96	67-129
1,1-Dichloroethane	mg/kg (ppm)	2.5	94	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	97	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	88	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	96	62-131
Trichloroethene	mg/kg (ppm)	2.5	84	64-117
Tetrachloroethene	mg/kg (ppm)	2.5	83	72-114

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

ME 11/01/19 | VS3/405

Page # 1 of 5

Send Report to _Clare Tochilin 911016

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS *(signature)*

PROJECT NAME/NO.: UW Laundry Property

PO #: 0987-022

REMARKS: ~~Hold~~

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270				Notes
P05-05	P05	5	01 A-E	10/31/19	0900	Soil	5									X-per CT
P05-09	"	9	02	"	0910	"	"				X					11/4/19
P05-12	"	12	03	"	0920	"	"									ME
P05-15	"	15	04	"	0925	"	"				X					
P05-18	"	18	05	"	0935	"	"									
P05-20	"	20	06	"	0945	"	"									
P06-05	P06	5	07	"	1030	"	"									
P06-10	"	10	08	"	1040	"	"				X					
P06-15	"	15	09	"	1050	"	"				X					
P07-05	~~P07~~	5	10	"	1120	"	"									Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	SoundEarth	11/1/19	0900
Received by:	Darrell Herzog	FedEx SDC	11/1/19	12:57
Relinquished by:				
Received by:	DO VO	F&BI	11-1-19	14.00

FORMS\COC\COC.DOC

SAMPLE CHAIN OF CUSTODY ME 11/01/19

VS3/1405

911016

Page # 2 of 3

Send Report to _Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS *(signature)*

PROJECT NAME/NO.: UW Laundry Property

PO #: 0987-022

REMARKS: HOLD

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5		Notes
P07-10	P07	10	11 A-E	10/31/19	1130	soil	5				X					
P07-15	"	15	12	"	1140	"	"				X					
P08-05	P08	5	13	"	1215	"	"									
P08-10	"	10	14	"	1220	"	"				X					
P08-15	"	15	15	"	1230	"	"				X					
P09-05	P09	5	16	"	1325	"	"						X	X		
P09-10	"	10	17	"	1340	"	"									
P09-15	"	15	18	"	1350	"	"									
P09-20	"	20	19	"	1400	"	"									
P10-05	P10	5	20	"	1435	"	"						X	X		Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	SoundEarth	11/1/19	0900
Received by:	Darnell Herzog	FedEx SDC	11/1/19	12:57
Relinquished by:				
Received by:	DOVO	FEDEX	11-1-19	14.00

SAMPLE CHAIN OF CUSTODY ME 11/01/19

VS 1/605

Page # 3 of 3 A05

Send Report to _Clare Tochilin 911016

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch

PROJECT NAME/NO.: UW Laundry Property

PO #: 0987-022

REMARKS: ~~HOLD~~

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	C PAHs	MTCA 5 Metals		Notes
P10-10	P10	10	21 A-E	10/31/19	1505	Soil	5									
P10-15	"	15	22	"	1510	"	"									
P10-20	"	20	23	"	1520	"	"									
P11-05	P11	5	24	"	1615	"	"									
P11-10	"	10	25	"	1625	"	"									
P11-12	"	12	26	"	1635	"	"				X		X	X		
P11-15	"	15	27	"	1630	"	"									
P11-20	"	20	28	"	1655	"	"									
													Samples received at 4 °C			

CT 11/1/19

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Clare Toch	Clare Tochilin	SoundEarth	11/1/19	0900
Received by:	Darrell Herzog	FedEx SDC	11/1/19	12:57
Relinquished by:				
Received by: DO	DO	FBI	11-1-19	14.07

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 18, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Tochilin:

Included are the additional results from the testing of material submitted on November 1, 2019 from the SOU_0987-022_ 20191101, F&BI 911016 project. There are 4 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU1118R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191101, F&BI 911016 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911016 -01	P05-05
911016 -02	P05-09
911016 -03	P05-12
911016 -04	P05-15
911016 -05	P05-18
911016 -06	P05-20
911016 -07	P06-05
911016 -08	P06-10
911016 -09	P06-15
911016 -10	P07-05
911016 -11	P07-10
911016 -12	P07-15
911016 -13	P08-05
911016 -14	P08-10
911016 -15	P08-15
911016 -16	P09-05
911016 -17	P09-10
911016 -18	P09-15
911016 -19	P09-20
911016 -20	P10-05
911016 -21	P10-10
911016 -22	P10-15
911016 -23	P10-20
911016 -24	P11-05
911016 -25	P11-10
911016 -26	P11-12
911016 -27	P11-15
911016 -28	P11-20

All quality control requirements were acceptable.

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911016
Date Extracted: 11/13/19
Date Analyzed: 11/13/19

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
P11-12 911016-26	<50	510	90
P11-15 911016-27	<50	<250	107
Method Blank 09-2804 MB	<50	<250	101

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911016

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 911176-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	18,000	90 b	207 b	64-133	79 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	58-147

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

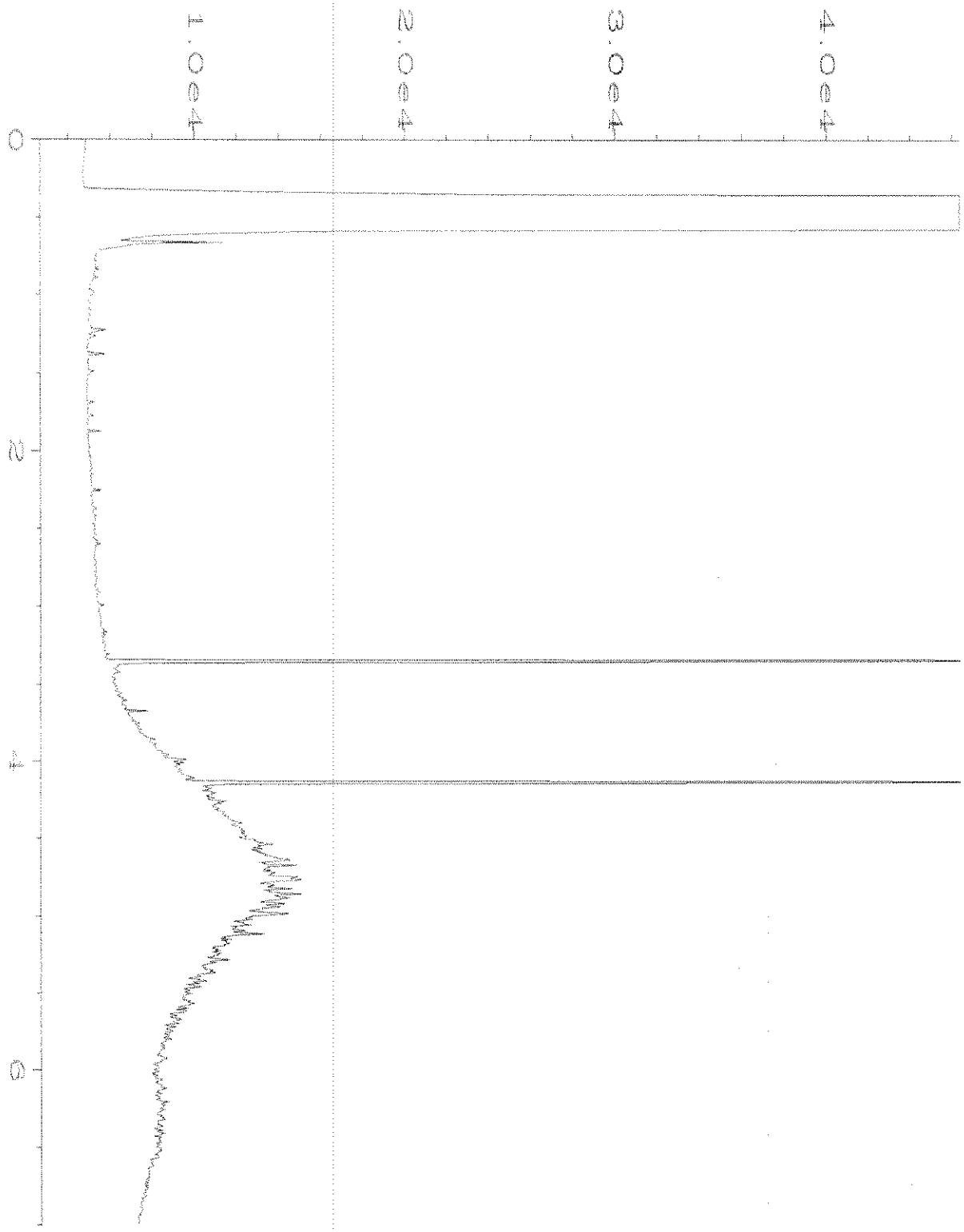
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



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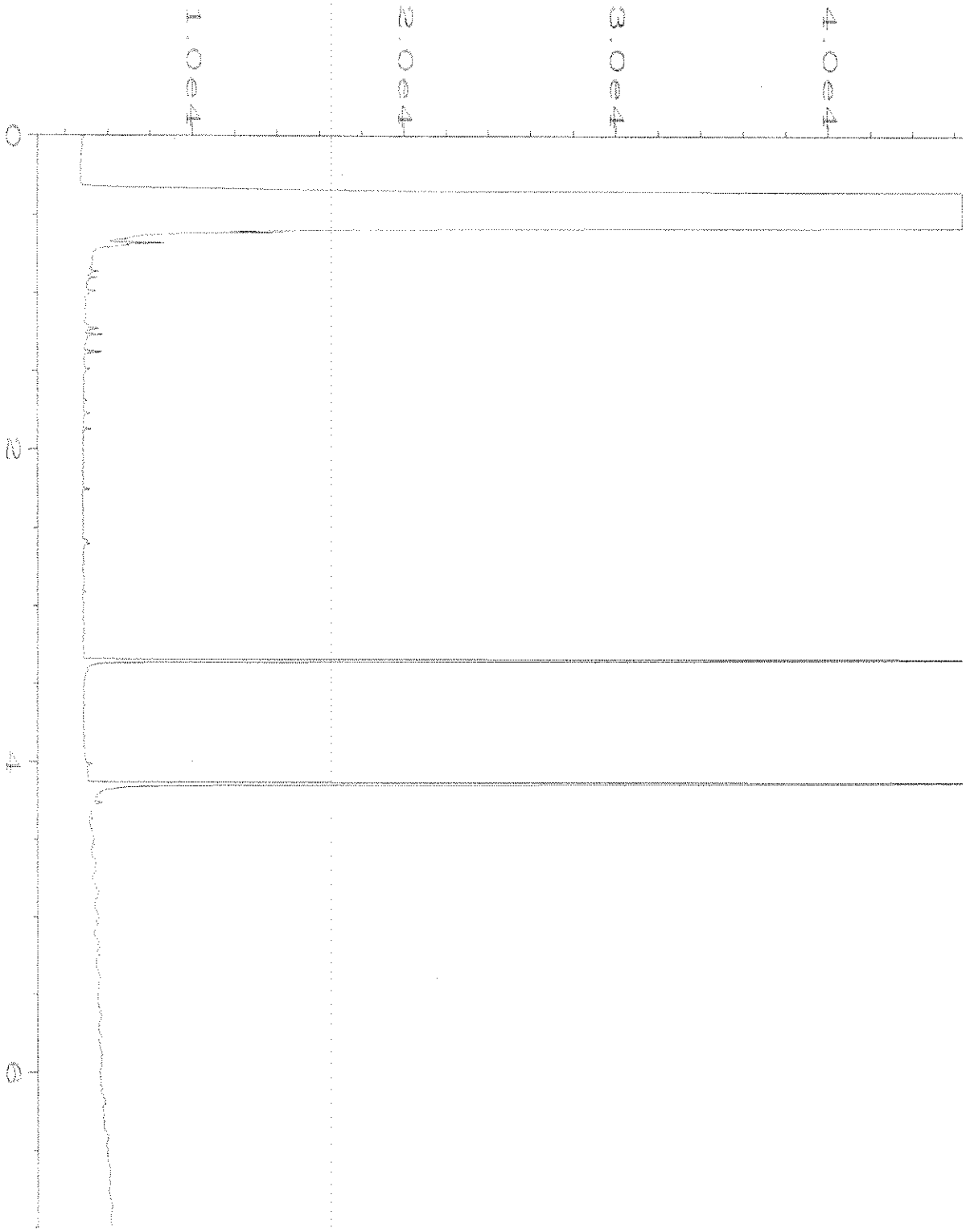
Operator	: TL	Page Number	: 1
Instrument	: GC6	Vial Number	: 50
Sample Name	: 911016-26	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 13 Nov 19 06:57 PM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 07:15 AM	Analysis Method	: DEFAULT.MTH



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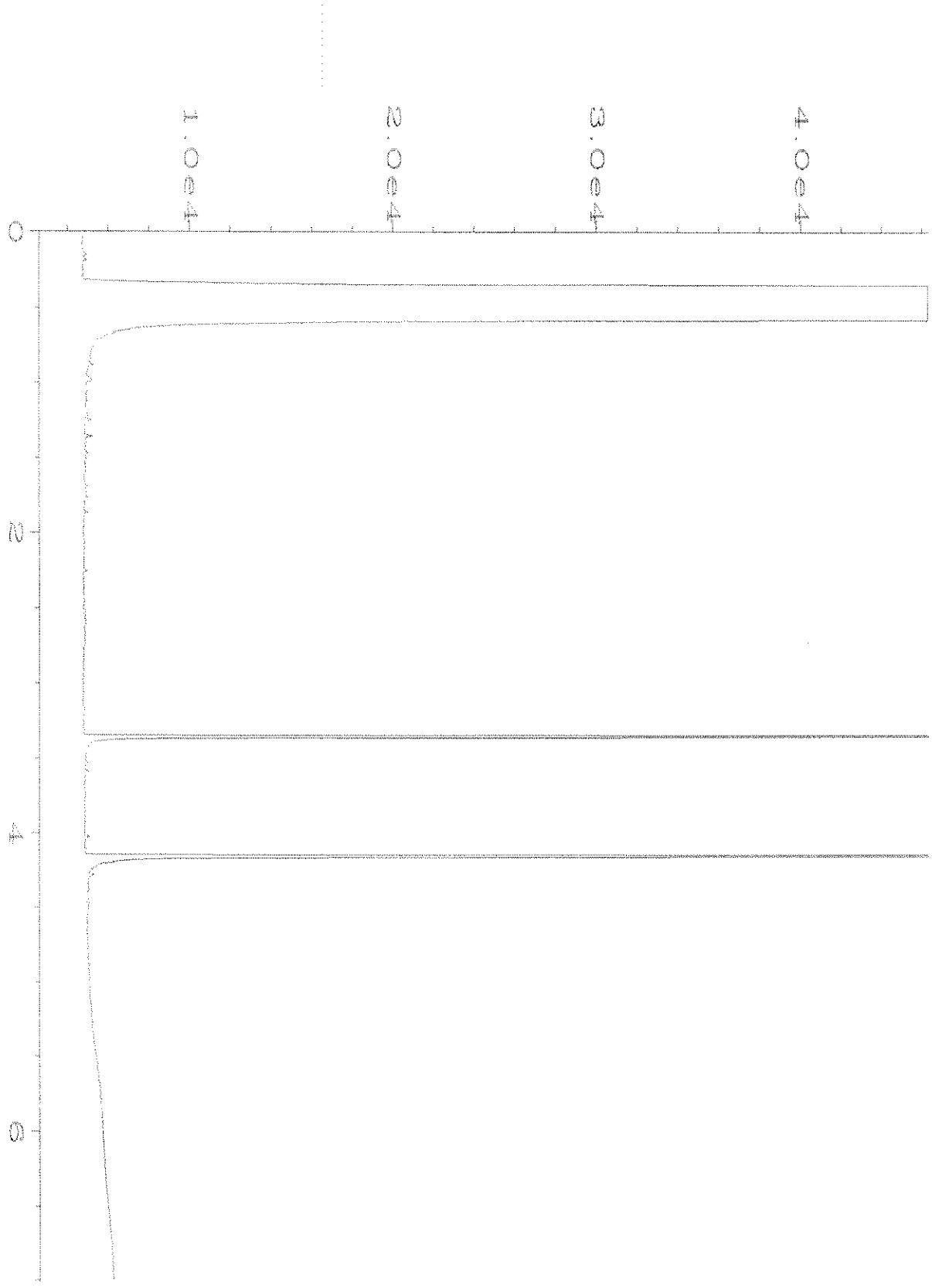
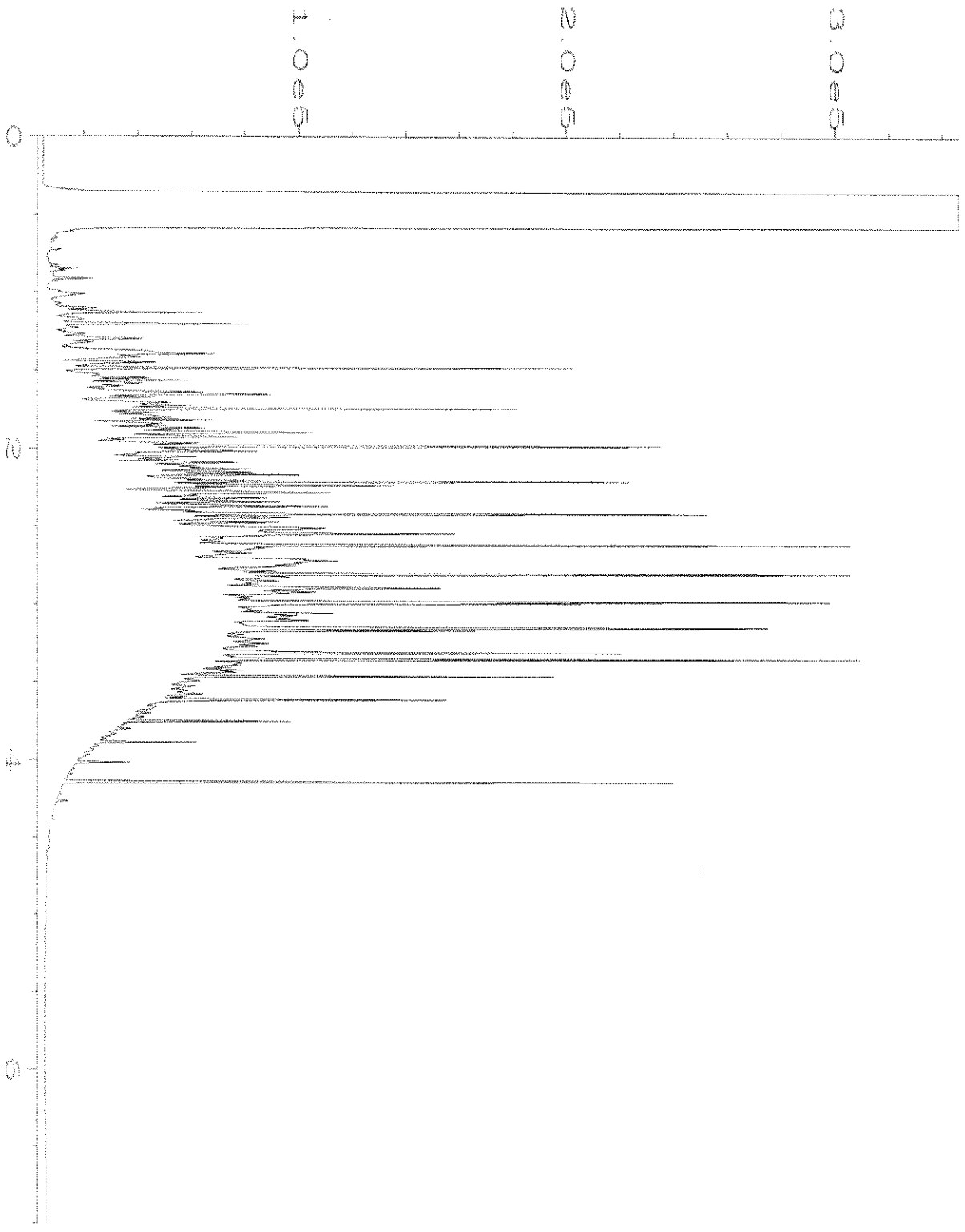
Operator	: TL	Page Number	: 1
Instrument	: GC6	Vial Number	: 51
Sample Name	: 911016-27	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 13 Nov 19 07:08 PM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 07:16 AM	Analysis Method	: DEFAULT.MTH



Data File Name	: C:\HPCHEM\6\DATA\11-13-19\030F0501.D		
Operator	: TL	Page Number	: 1
Instrument	: GC6	Vial Number	: 30
Sample Name	: 09-2804 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 13 Nov 19 02:05 PM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 07:15 AM	Analysis Method	: DEFAULT.MTH



Data File Name : C:\HPCHEM\6\DATA\11-13-19\005F0601.D
Operator : TL
Instrument : GC6
Sample Name : 1000 Dx 58-146C
Run Time Bar Code:
Acquired on : 13 Nov 19 03:08 PM
Report Created on: 14 Nov 19 07:14 AM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

SAMPLE CHAIN OF CUSTODY

ME 11/01/19 VS3 405

Page # 1 of 3

Send Report to _Clare Tochilin 911016

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.: UW Laundry Property

PO #: 0987-022

REMARKS: ~~Hold~~

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270				Notes
P05-05	P05	5	01 A/E	10/31/19	0910	Soil	5									X-per CT
P05-09	"	9	02	"	0910	"	"				X					11/4/19
P05-12	"	12	03	"	0920	"	"									ME
P05-15	"	15	04	"	0925	"	"				X					
P05-18	"	18	05	"	0935	"	"									
P05-20	"	20	06	"	0945	"	"									
P06-05	P06	5	07	"	1030	"	"									
P06-10	"	10	08	"	1040	"	"				X					
P06-15	"	15	09	"	1050	"	"				X					
P07-05	~~P07~~	5	10	"	1120	"	"									Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	SoundEarth	11/1/19	0900
Received by:	Darrell Herzog	FedEx SDC	11/1/19	12:57
Relinquished by:				
Received by:	DO VO	F+BT	11-1-19	14.04

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

SAMPLE CHAIN OF CUSTODY ME 11/01/19

VS3/A05

Page # 2 of 3

Send Report to _Clare Tochilin 911016

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS *(signature)*

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS ~~HOLD~~

~~TURNAROUND~~ TIME
~~Standard~~ (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5		Notes
P07-10	P07	10	11 A-E	10/31/19	1130	Soil	5				X					
P07-15	"	15	12	"	1140	"	"				X					
P08-05	P08	5	13	"	1215	"	"									
P08-10	"	10	14	"	1220	"	"				X					
P08-15	"	15	15	"	1230	"	"				X					
P09-05	P09	5	16	"	1325	"	"						X	X		
P09-10	"	10	17	"	1340	"	"									
P09-15	"	15	18	"	1350	"	"									
P09-20	"	20	19	"	1400	"	"									
P10-05	P10	5	20	"	1435	"	"						X	X		

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	SoundEarth	11/1/19	0900
Received by:	Darnell Herzog	FedEx SDC	11/1/19	12:57
Relinquished by:				
Received by:	DO VO	FedEx	11-1-19	14:00

FORMS\COC\COC.DOC

SAMPLE CHAIN OF CUSTODY ME 11/4/19 VS3/G05

Send Report to _Clare Tochilin 911016

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Tochilin

PROJECT NAME/NO.	PO #
UW Laundry Property	0987-022

REMARKS

~~HOLD~~

Page # 3 of 3 A05

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5 Metals		Notes
P10-10	P10	10	21 A-E	10/31/19	1505	Soil	5									
P10-15		15	22		1510											
P10-20		20	23		1520											
P11-05	P11	5	24		1615											
P11-10		10	25		1625											
P11-12		12	26		1635			⊗			X		X	X		Di per CT
P11-15		15	27		1630			(X)								11/3/19 2nd TAT
P11-20		20	28		1655											ME

CT 11/1/19

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Clare Tochilin	SoundEarth	11/1/19	0900
Received by:	[signature]	Darrell Herzog	FedEx SDC	11/1/19	12:57
Relinquished by:					
Received by:	[signature]	DO VO	F&BI	11-1-19	14:00

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 13, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Tochilin:

Included are the results from the testing of material submitted on November 1, 2019 from the SOU_0987-022_ 20191101, F&BI 911023 project. There are 38 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU1113R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191101, F&BI 911023 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911023 -01	P12-05
911023 -02	P12-10
911023 -03	P12-15
911023 -04	P12-20
911023 -05	P13-05
911023 -06	P13-10
911023 -07	P13-15
911023 -08	P14-05
911023 -09	P14-10
911023 -10	P14-15
911023 -11	P14-20
911023 -12	P15-05
911023 -13	P15-10
911023 -14	P15-15
911023 -15	P15-20
911023 -16	P16-05
911023 -17	P16-10
911023 -18	P16-15
911023 -19	P16-20
911023 -20	P17-05
911023 -21	P17-10
911023 -22	P17-15
911023 -23	P17-20
911023 -24	P17-25
911023 -25	P18-05
911023 -26	P18-10
911023 -27	P18-15
911023 -28	P18-20
911023 -29	P18-24

A 6020B internal standard failed the acceptance. The samples were diluted and reanalyzed with acceptable results. Both data sets were reported.

Methylene chlorde in the 8260C laboratory control sample and matrix spike and matrix spike duplicate relativer percent difference exceeded the acceptance criteria. The analyte was not detected in the sample, therefore the data were acceptable.

An 8270D internal standard failed the acceptance criteria for samples P13-10 and P18-05. The samples were diluted and reanalyzed with acceptable results. Both data sets were reported.

All other quality control requirements were acceptable.

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023
Date Extracted: 11/05/19
Date Analyzed: 11/06/19

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
P14-10 911023-09	<0.02	<0.02	<0.02	<0.06	<5	84
P14-15 911023-10	<0.02	<0.02	<0.02	<0.06	<5	84
P15-10 911023-13	<0.02	<0.02	<0.02	<0.06	<5	84
P15-15 911023-14	<0.02	<0.02	<0.02	<0.06	<5	84
P16-15 911023-18	<0.02	<0.02	<0.02	<0.06	<5	85
P16-20 911023-19	<0.02	<0.02	<0.02	<0.06	<5	85
Method Blank 09-2716 MB	<0.02	<0.02	<0.02	<0.06	<5	85

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023
Date Extracted: 11/05/19
Date Analyzed: 11/05/19

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 56-165)
P14-10 911023-09	<50	480	102
P14-15 911023-10	<50	<250	104
P15-10 911023-13	<50	<250	102
P15-15 911023-14	<50	<250	102
P16-15 911023-18	660	<250	106
P16-20 911023-19	<50	<250	102
Method Blank 09-2713 MB	<50	<250	100

Analysis For Total Metals By EPA Method 6020B

Client ID:	P12-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-01
Date Analyzed:	11/06/19	Data File:	911023-01.082
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.09
Cadmium	<1
Chromium	15.9 J
Lead	2.46
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P12-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-01 x5
Date Analyzed:	11/06/19	Data File:	911023-01 x5.175
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	17.0

Analysis For Total Metals By EPA Method 6020B

Client ID:	P13-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-06
Date Analyzed:	11/06/19	Data File:	911023-06.083
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.55
Cadmium	<1
Chromium	21.1 J
Lead	80.0
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P13-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-06 x5
Date Analyzed:	11/06/19	Data File:	911023-06 x5.176
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	21.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	P16-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-18
Date Analyzed:	11/06/19	Data File:	911023-18.084
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.25
Cadmium	<1
Chromium	24.7 J
Lead	6.56
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P16-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-18 x5
Date Analyzed:	11/06/19	Data File:	911023-18 x5.180
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	24.6

Analysis For Total Metals By EPA Method 6020B

Client ID:	P17-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-20
Date Analyzed:	11/06/19	Data File:	911023-20.085
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.86
Cadmium	<1
Chromium	41.3 J
Lead	34.8
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P17-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-20 x5
Date Analyzed:	11/06/19	Data File:	911023-20 x5.181
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	49.3

Analysis For Total Metals By EPA Method 6020B

Client ID:	P18-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-25
Date Analyzed:	11/06/19	Data File:	911023-25.134
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.21
Cadmium	<1
Chromium	13.1 J
Lead	4.31
Mercury	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	P18-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	911023-25 x5
Date Analyzed:	11/06/19	Data File:	911023-25 x5.182
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	13.5

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/06/19	Lab ID:	I9-708 mb2
Date Analyzed:	11/06/19	Data File:	I9-708 mb2.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P12-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-02
Date Analyzed:	11/05/19	Data File:	110512.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	62	145
Toluene-d8	106	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P12-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-03
Date Analyzed:	11/05/19	Data File:	110518.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	62	145
Toluene-d8	107	55	145
4-Bromofluorobenzene	91	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P13-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-06
Date Analyzed:	11/05/19	Data File:	110519.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	62	145
Toluene-d8	110	55	145
4-Bromofluorobenzene	94	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P13-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-07
Date Analyzed:	11/05/19	Data File:	110520.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	62	145
Toluene-d8	109	55	145
4-Bromofluorobenzene	93	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P14-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-09
Date Analyzed:	11/05/19	Data File:	110521.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	62	145
Toluene-d8	112	55	145
4-Bromofluorobenzene	97	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P14-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-10
Date Analyzed:	11/05/19	Data File:	110522.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	62	145
Toluene-d8	112	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P16-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-17
Date Analyzed:	11/05/19	Data File:	110523.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	62	145
Toluene-d8	113	55	145
4-Bromofluorobenzene	98	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P16-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-18
Date Analyzed:	11/05/19	Data File:	110524.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	62	145
Toluene-d8	113	55	145
4-Bromofluorobenzene	95	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P16-20	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-19
Date Analyzed:	11/05/19	Data File:	110525.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	62	145
Toluene-d8	113	55	145
4-Bromofluorobenzene	96	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	09-2681 mb2
Date Analyzed:	11/05/19	Data File:	110510.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	62	145
Toluene-d8	105	55	145
4-Bromofluorobenzene	94	65	139

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P12-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-01 1/5
Date Analyzed:	11/08/19	Data File:	110815.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	88	31	163
Benzo(a)anthracene-d12	91	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P13-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-06 1/25
Date Analyzed:	11/09/19	Data File:	110835.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	96 d	31	163
Benzo(a)anthracene-d12	87 d	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.097
Chrysene	0.47
Benzo(a)pyrene	0.052 J
Benzo(b)fluoranthene	0.11 J
Benzo(k)fluoranthene	0.085 J
Indeno(1,2,3-cd)pyrene	<0.05 J
Dibenz(a,h)anthracene	<0.05 J

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P13-10	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-06 1/250
Date Analyzed:	11/06/19	Data File:	110621.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	191 d	31	163
Benzo(a)anthracene-d12	129 d	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.5
Chrysene	<0.5
Benzo(a)pyrene	<0.5
Benzo(b)fluoranthene	<0.5
Benzo(k)fluoranthene	<0.5
Indeno(1,2,3-cd)pyrene	<0.5
Dibenz(a,h)anthracene	<0.5

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P16-15	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-18 1/5
Date Analyzed:	11/08/19	Data File:	110816.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	31	163
Benzo(a)anthracene-d12	93	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P17-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-20 1/5
Date Analyzed:	11/08/19	Data File:	110817.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	31	163
Benzo(a)anthracene-d12	93	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.013
Chrysene	0.015
Benzo(a)pyrene	0.012
Benzo(b)fluoranthene	0.016
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P18-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-25 1/25
Date Analyzed:	11/09/19	Data File:	110836.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	101 d	31	163
Benzo(a)anthracene-d12	96 d	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.05
Chrysene	0.18
Benzo(a)pyrene	<0.05 J
Benzo(b)fluoranthene	0.052 J
Benzo(k)fluoranthene	<0.05 J
Indeno(1,2,3-cd)pyrene	<0.05 J
Dibenz(a,h)anthracene	<0.05 J

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	P18-05	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911023-25 1/250
Date Analyzed:	11/07/19	Data File:	110715.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	160 d	31	163
Benzo(a)anthracene-d12	90 d	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.5
Chrysene	<0.5
Benzo(a)pyrene	<0.5
Benzo(b)fluoranthene	<0.5
Benzo(k)fluoranthene	<0.5
Indeno(1,2,3-cd)pyrene	<0.5
Dibenz(a,h)anthracene	<0.5

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	09-2714 mb 1/5
Date Analyzed:	11/06/19	Data File:	110607.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	31	163
Benzo(a)anthracene-d12	92	24	168

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 911023-09 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	0.051	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	0.076	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	101	69-120
Toluene	mg/kg (ppm)	0.5	99	70-117
Ethylbenzene	mg/kg (ppm)	0.5	97	65-123
Xylenes	mg/kg (ppm)	1.5	100	66-120
Gasoline	mg/kg (ppm)	20	115	71-131

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 911045-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	120	120	63-146	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	120	79-144

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 910613-113 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<1 ca	87	86	75-125	1
Cadmium	mg/kg (ppm)	5	<1	95	93	75-125	2
Chromium	mg/kg (ppm)	20	11.3	84 b	74 b	75-125	13 b
Lead	mg/kg (ppm)	10	4.27	85	78	75-125	9
Mercury	mg/kg (ppm	5	<1 ca	86	87	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	98	80-120
Cadmium	mg/kg (ppm)	5	97	80-120
Chromium	mg/kg (ppm)	20	107	80-120
Lead	mg/kg (ppm)	10	97	80-120
Mercury	mg/kg (ppm)	5	84	80-120

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 911006-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	68	63	10-91	8
Chloroethane	mg/kg (ppm)	2.5	<0.5	83	77	10-101	7
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	93	82	22-107	13
Methylene chloride	mg/kg (ppm)	2.5	<0.5	93	73	14-128	24 vo
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	97	90	13-112	7
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	89	83	23-115	7
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	97	90	25-120	7
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	87	83	22-124	5
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	97	89	27-112	9
Trichloroethene	mg/kg (ppm)	2.5	<0.02	88	85	30-112	3
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	97	94	25-114	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2.5	83	42-107
Chloroethane	mg/kg (ppm)	2.5	94	47-115
1,1-Dichloroethene	mg/kg (ppm)	2.5	97	65-110
Methylene chloride	mg/kg (ppm)	2.5	219 vo	50-127
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	102	71-113
1,1-Dichloroethane	mg/kg (ppm)	2.5	90	74-109
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	100	73-110
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	82	73-111
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	96	72-116
Trichloroethene	mg/kg (ppm)	2.5	83	72-107
Tetrachloroethene	mg/kg (ppm)	2.5	93	73-111

Date of Report: 11/13/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270D SIM

Laboratory Code: 911064-02 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	81	23-144
Chrysene	mg/kg (ppm)	0.17	<0.01	83	32-149
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	66	23-176
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	71	42-139
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	66	21-163
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	69	23-170
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	69	31-146

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	86	88	51-115	2
Chrysene	mg/kg (ppm)	0.17	90	92	55-129	2
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	75	72	56-123	4
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	75	78	54-131	4
Benzo(a)pyrene	mg/kg (ppm)	0.17	67	69	51-118	3
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	67	68	49-148	1
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	66	71	50-141	7

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

911023

SAMPLE CHAIN OF CUSTODY ME 11-01-19

VSS/AOS

Page # 1 of 3

Send Report to Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Kayla Lowery

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS HOLD

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	cPAHs	MTCAS Metals		Notes
P12-05	P12	5	01 AE	11/01/19	0745	Soil	5						X	X		X-per CT 11/4/19 ME
P12-10		10	02		0755						X					
P12-15		15	03		0800						X					
P12-20		20	04		0810											
P13-05	P13	5	05		0905											
P13-10		10	06		0915						X		X	X		
P13-15		15	07		0940						X				NTP 11/04	VOA label P13-20
P14-05	P14	5	08		1025											
P14-10		10	09		1035			X	X	X	X					
P14-15		15	10		1045			X	X	X	X					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kayla Lowery	Kayla Lowery	SES	11/01/19	1755
Received by:	BISRAT TADESSE	FBI	11/01/19	1755
Relinquished by:				
Received by:		Samples received at 3 °C		

911023

SAMPLE CHAIN OF CUSTODY ME 11-01-19 VS3/ADS

Page # 2 of 3

Send Report to _Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Kyle Lowry

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS ~~HOLD~~

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5 Metals		Notes
P14-20	P14	20	11 A-E	11/01/19	1055	Soil	5									
P15-05	P15	5	12		1205											
P15-10		10	13		1215			X	X	X						
P15-15		15	14		1220			X	X	X						
P15-20		20	15		1225											
P16-05	P16	5	16		1315											
P16-10		10	17		1320						X					
P16-15		15	18		1330			X	X	X	X		X	X		
P16-20		20	19		1350			X	X	X	X					
P17-05	P17	5	20		1430								X	X		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kyle Lowry	Kyle Lowry	SES	11/01/19	1755
Received by:		BISRAT TADESSE	FBI	11/01/19	1755
Relinquished by:					
Received by:			Samples received at 3 °C		

FORMS\COC\COC.DOC

911023

SAMPLE CHAIN OF CUSTODY ME 11-01-19 VS3/AD5

Page # 3 of 3

Send Report to _Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Kyle Lowry

PROJECT NAME/NO.: UW Laundry Property

PO #: 0987-022

REMARKS: HOLD

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5 Mtls		Notes
P17-10	P17	10	21	11/01/19	1440	Soil	5									
P17-15		15	22		1445											
P17-20		20	23		1455											
P17-25		25	24		1505											
P18-05	P18	5	25		1515								X	X		
P18-10		10	26		1325											
P18-15		15	27		1530											
P18-20		20	28		1545											
P18-24		24	29		1615											
												Rec'd 11/01/19				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kyle Lowry	Kyle Lowry	SES	11/01/19	1755
Received by:	BISRAT TADESSE	FBI	11/01/19	1755
Relinquished by:				
Received by:		Samples received at 3 °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 18, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Tochilin:

Included are the additional results from the testing of material submitted on November 1, 2019 from the SOU_0987-022_ 20191101, F&BI 911023 project. There are 4 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU1118R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191101, F&BI 911023 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911023 -01	P12-05
911023 -02	P12-10
911023 -03	P12-15
911023 -04	P12-20
911023 -05	P13-05
911023 -06	P13-10
911023 -07	P13-15
911023 -08	P14-05
911023 -09	P14-10
911023 -10	P14-15
911023 -11	P14-20
911023 -12	P15-05
911023 -13	P15-10
911023 -14	P15-15
911023 -15	P15-20
911023 -16	P16-05
911023 -17	P16-10
911023 -18	P16-15
911023 -19	P16-20
911023 -20	P17-05
911023 -21	P17-10
911023 -22	P17-15
911023 -23	P17-20
911023 -24	P17-25
911023 -25	P18-05
911023 -26	P18-10
911023 -27	P18-15
911023 -28	P18-20
911023 -29	P18-24

All quality control requirements were acceptable.

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023
Date Extracted: 11/13/19
Date Analyzed: 11/13/19

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
P13-10 911023-06	840	3,700	100
P13-15 911023-07	<50	<250	95
Method Blank 09-2804 MB	<50	<250	101

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911023

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 911176-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	18,000	90 b	207 b	64-133	79 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	58-147

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

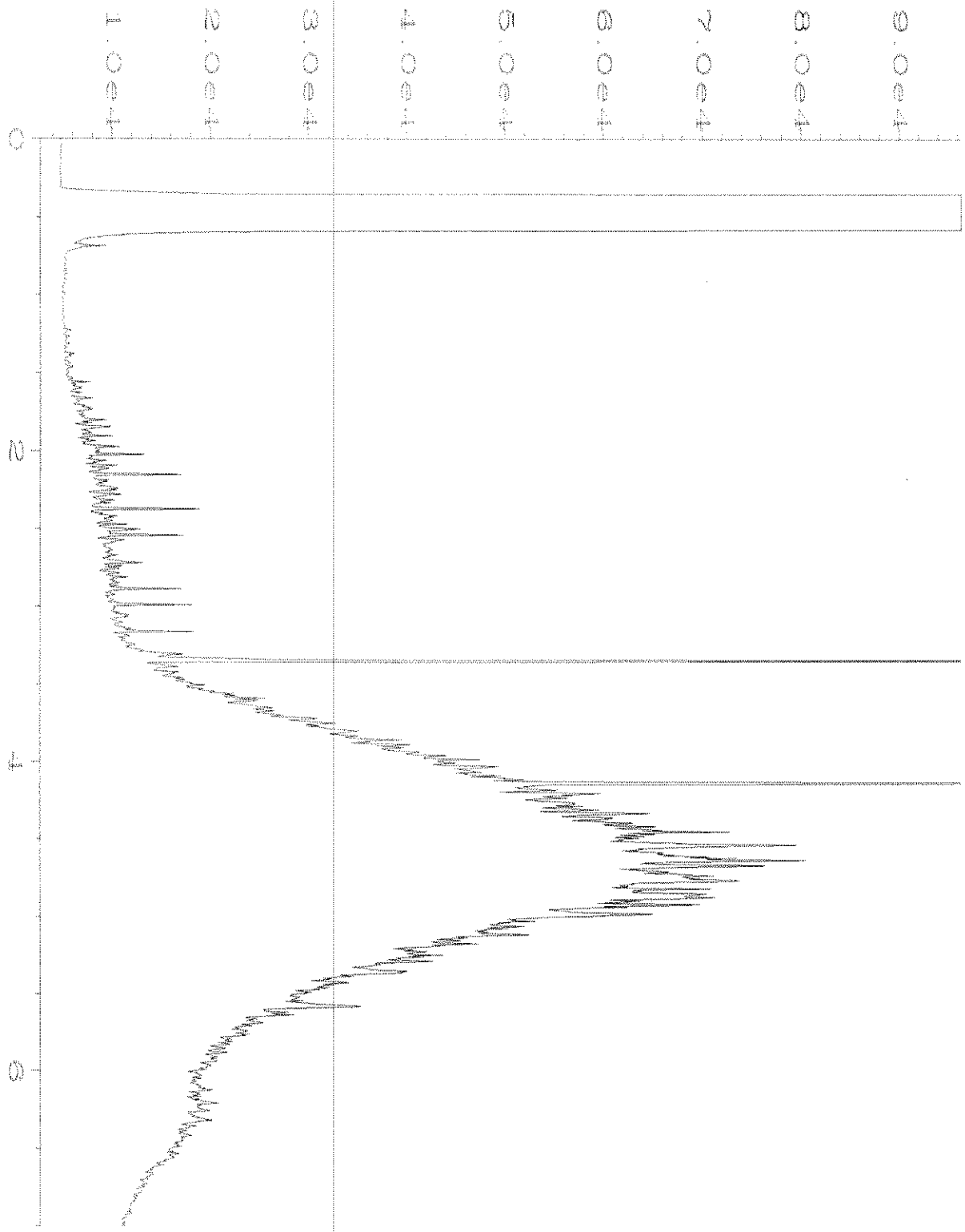
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

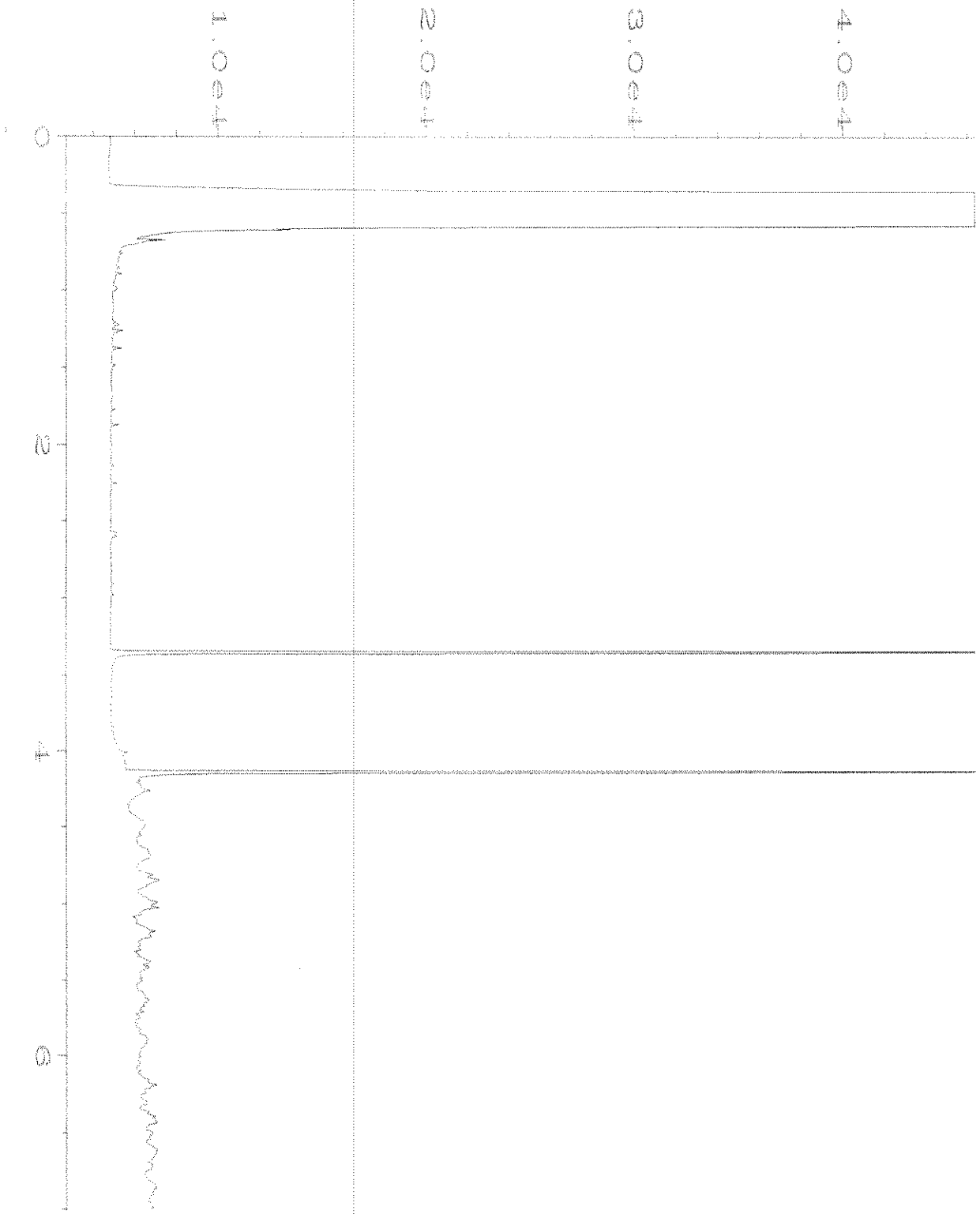
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

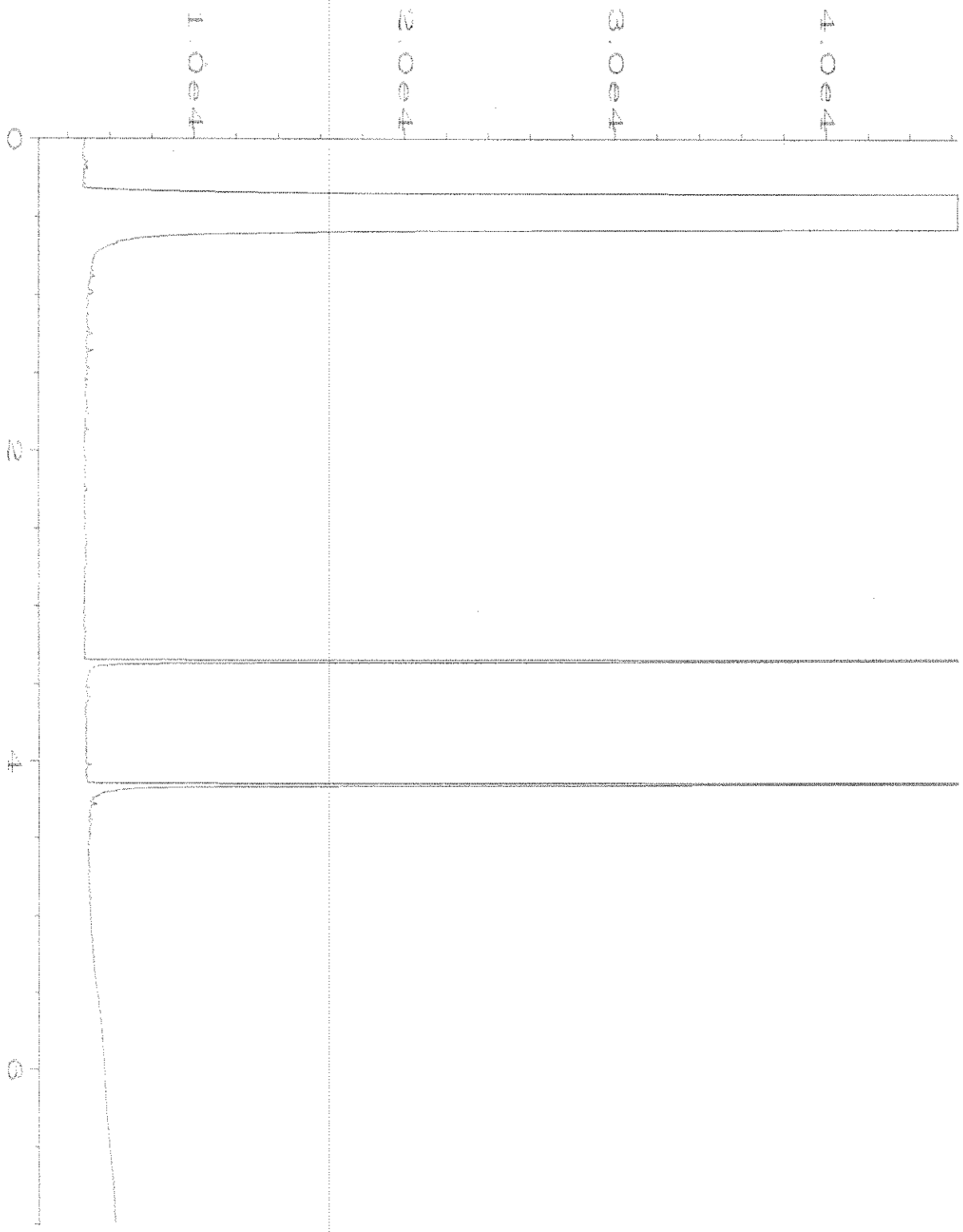


Data File Name	: C:\HPCHEM\6\DATA\11-13-19\052F0901.D		
Operator	: TL	Page Number	: 1
Instrument	: GC6	Vial Number	: 52
Sample Name	: 911023-06	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 13 Nov 19 07:18 PM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 07:16 AM	Analysis Method	: DEFAULT.MTH



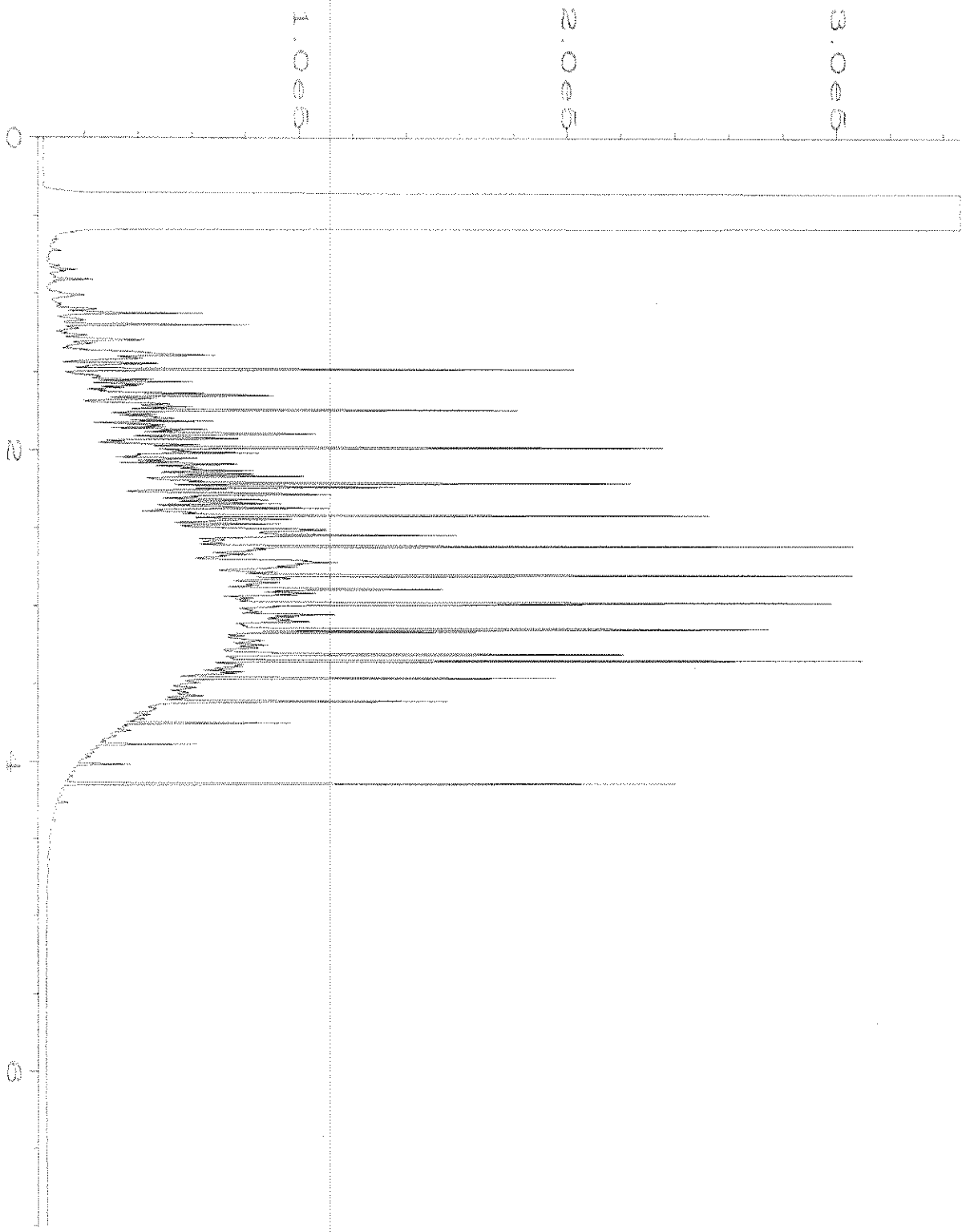
Data File Name : C:\HPCHEM\6\DATA\11-13-19\053F0901.D
Operator : TL
Instrument : GC6
Sample Name : 911023-07
Run Time Bar Code:
Acquired on : 13 Nov 19 07:29 PM
Report Created on: 14 Nov 19 07:16 AM

Page Number : 1
Vial Number : 53
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name : C:\HPCHEM\6\DATA\11-13-19\030F0501.D
Operator : TL
Instrument : GC6
Sample Name : 09-2804 mb
Run Time Bar Code:
Acquired on : 13 Nov 19 02:05 PM
Report Created on: 14 Nov 19 07:15 AM

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name : C:\HPCHEM\6\DATA\11-13-19\005F0601.D
Operator : TL
Instrument : GC6
Sample Name : 1000 Dx 58-146C
Run Time Bar Code:
Acquired on : 13 Nov 19 03:08 PM
Report Created on: 14 Nov 19 07:14 AM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

Weighca Gel	ter-ed	Form	Time\	W or S		Water Soil			50	250	250	250	50	50	50	250		
								(Change limits for -->	50	50	250	250	50	50	50	500		
								low level soils)										
% Solid	Silica	Filte	Rpt		Typ	Sampl Vol	Final Volume	Dil	Sample Name	Diesel Conc.	Diesel Ext Conc.	Motor Oil Conc.	Heavy Oil/Cru Conc.	C12-24 Conc.	Stoddard Conc.	Kerosene Conc.	C24-38 Conc.	Surrogate Terphenyl Recovery	Vial #
1.00				11-13-19 14:57		1	1.0		1000 MO 59-19C	72	131	828	152	220	1	64	-11	100	4
1.00				11-13-19 15:08		1	1.0		1000 Dx 58-146C	1035	1003	16	432	624	789	1005	-11	120	5
0.78			2	11-13-19 15:65	s	2	10		911177-01	<50	<50	<250	<250	<50	<50	<50	<500	96	35
0.78			2	11-13-19 16:03	s	2	10		911177-02	<50	<50	<250	<250	<50	<50	<50	<500	94	36
0.78			2	11-13-19 16:14	s	2	10		911177-03	<50	<50	<250	<250	<50	<50	<50	<500	103	37
0.80			2	[illegible]	s	2	10		911177-04	5274	14294	<250	810	1171	4879	4850	<500	91	38
0.77			2	11-13-19 16:36	s	2	10		911177-05	4261	4114	<250	1804	2609	2901	3879	<500	86	39
0.82			2	11-13-19 16:47	s	2	10		911177-06	<50	<50	<250	<250	<50	<50	<50	<500	85	40
0.80			2	11-13-19 16:57	s	2	10		911177-07	<50	<50	<250	<250	<50	<50	<50	<500	98	41
0.84			2	11-13-19 17:08	s	2	10		911177-08	6343	6127	<250	2814	4069	4186	5759	<500	105	42
0.74			2	11-13-19 17:19	s	2	10		911177-09	<50	<50	<250	<250	<50	<50	<50	<500	99	43
0.83			2	11-13-19 17:30	s	2	10		911177-10	11450	11076	<250	4622	6684	8449	10782	<500	88	44
0.81			2	11-13-19 17:41	s	2	10		911177-11	<50	<50	<250	<250	<50	<50	<50	<500	93	45
0.74			2	11-13-19 17:52	s	2	10		911177-12	132	129	<250	<250	95	90	126	<500	101	46
0.89			2	11-13-19 18:03	s	2	10		911177-13	<50	<50	<250	<250	<50	<50	<50	<500	94	47
0.91			2	11-13-19 18:13	s	2	10		911177-14	<50	<50	<250	<250	<50	<50	<50	<500	99	48
0.91			2	11-13-19 18:24	s	2	10		911177-15	<50	<50	<250	<250	<50	<50	<50	<500	106	49
1.00				11-13-19 18:35		1	1.0		500 MO 59-19B	35	58	434	68	98	0	31	-9	96	2
1.00				11-13-19 18:46		1	1.0		500 Dx 58-146B	530	513	6	219	317	404	514	-11	115	3
0.87			9	11-13-19 18:57	s	2	10		911016-26	<50	401	510	466	674	<50	<50	<500	90	50
0.80			9	11-13-19 19:08	s	2	10		911016-27	<50	<50	<250	<250	<50	<50	<50	<500	107	51
0.92			9	11-13-19 19:18	s	2	10		911023-06	839	3346	3702	3730	5395	151	742	<500	100	52
0.71			9	11-13-19 19:29	s	2	10		911023-07	<50	<50	<250	<250	77	<50	<50	<500	95	53
1.00				11-13-19 19:40		1	1.0		1000 MO 59-19C	222	795	847	923	1335	1	196	-11	94	4
1.00				11-13-19 19:51		1	1.0		1000 Dx 58-146C	942	913	13	390	564	721	916	-10	105	5

Calculated by:
Analyzed on: 11-14-19

Reviewed by: 11/19/19

911023

SAMPLE CHAIN OF CUSTODY ME 11-01-19

USS/ATOS

Page # 1 of 3

Send Report to Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Kyle Lowery

PROJECT NAME/NO.	PO #
UW Laundry Property	0987-022

REMARKS

~~HOLD~~

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270	cPAHs	MTCAS Metals		(X)-perCT 11/13/19 Notes 24hr TAT ME X-perCT
P12-05	P12	5	01 AE	11/01/19	0745	Soil	5						X	X		11/4/19 ME
P12-10		10	02		0755						X					
P12-15		15	03		0800						X					
P12-20		20	04		0810											
P13-05	P13	5	05		0905											
P13-10		10	06		0915			(X)			X		X	X	NP 11/04	
P13-15		15	07		0940			(X)			X					VOA label P13-20
P14-05	P14	5	08		1025											
P14-10		10	09		1035			X	X	X	X					
P14-15		15	10		1045			X	X	X	X					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kyle Lowery	Kyle Lowery	SES	11/01/19	1755
Received by:	BISRAT TADESSE	FBI	11/01/19	1755
Relinquished by:				
Received by:		Samples received at 3 °C		

911023

SAMPLE CHAIN OF CUSTODY ME 11-01-19 VS3/A05

Send Report to Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) [signature]

PROJECT NAME/NO.	PO #
UW Laundry Property	0987-022

REMARKS: HOLD

Page # 2 of 3

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	c VOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5 metals		Notes
P14-20	P14	20	11 A-E	11/01/19	1055	Soil	5									
P15-05	P15	5	12	↓	1205	↓	↓									
P15-10	↓	10	13		1215			X	X	X						
P15-15		15	14		1220			X	X	X						
P15-20	↓	20	15		1225											
P16-05	P16	5	16		1315											
P16-10	↓	10	17		1320						X					
P16-15		15	18		1330			X	X	X	X		X	X		
P16-20	↓	20	19		1350			X	X	X	X					
P17-05	P17	5	20 ↓	↓	1430	↓	↓						X	X		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Kyle Lowry	SES	11/01/19	1755
Received by:	[signature]	BISRAT TADESSE	FBI	11/01/19	1755
Relinquished by:					
Received by:			Samples received at 3 °C		

911023

SAMPLE CHAIN OF CUSTODY ME 11-01-19 VS3/ATS

Page # 3 of 3

Send Report to _Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Kyle Lowry

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS HOLD

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	cPAHs	MTCA 5 Metals		Notes
P17-10	P17	10	21 AE	11/01/19	1440	Soil	5									
P17-15		15	22		1445											
P17-20		20	23		1455											
P17-25		25	24		1505											
P18-05	P18	5	25		1515								X	X		
P18-10		10	26		1325											
P18-15		15	27		1530											
P18-20		20	28		1545											
P18-24		24	29		1615											
												RUSH 11/01/19				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kyle Lowry	Kyle Lowry	SES	11/01/19	1755
Received by:	BISRAT TADESSE	FBI	11/01/19	1755
Relinquished by:				
Received by:		Samples received at 3 °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 12, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

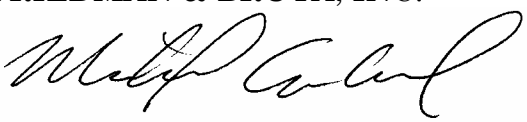
Dear Ms Tochilin:

Included are the results from the testing of material submitted on November 1, 2019 from the SOU_0987-022_ 20191101, F&BI 911030 project. There are 12 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SOU1112R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0987-022_ 20191101, F&BI 911030 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911030 -01	P12-20191101
911030 -02	P13-20191101
911030 -03	P14-20191101
911030 -04	P15-20191101
911030 -05	P16-20191101

All quality control requirements were acceptable.

Date of Report: 11/12/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911030
Date Extracted: 11/06/19
Date Analyzed: 11/06/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
P14-20191101 911030-03	<1	<1	<1	<3	<100	80
P16-20191101 911030-05	<1	<1	<1	<3	<100	79
Method Blank 09-2625 MB	<1	<1	<1	<3	<100	79

Date of Report: 11/12/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911030
Date Extracted: 11/05/19
Date Analyzed: 11/05/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
P14-20191101 911030-03	480 x	<250	118
P16-20191101 911030-05	1,800 x	290 x	108
Method Blank 09-2707 MB	<100	<250	123

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P12-20191101	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911030-01
Date Analyzed:	11/05/19	Data File:	110533.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	57	121
Toluene-d8	114	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P13-20191101	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911030-02
Date Analyzed:	11/05/19	Data File:	110534.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	57	121
Toluene-d8	115	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P14-20191101	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911030-03
Date Analyzed:	11/05/19	Data File:	110535.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	57	121
Toluene-d8	115	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	P16-20191101	Client:	SoundEarth Strategies
Date Received:	11/01/19	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	911030-05
Date Analyzed:	11/05/19	Data File:	110536.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	57	121
Toluene-d8	116	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0987-022_ 20191101
Date Extracted:	11/05/19	Lab ID:	09-2682 mb
Date Analyzed:	11/05/19	Data File:	110509.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	57	121
Toluene-d8	108	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 11/12/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911030

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 911030-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	100	65-118
Toluene	ug/L (ppb)	50	102	72-122
Ethylbenzene	ug/L (ppb)	50	103	73-126
Xylenes	ug/L (ppb)	150	97	74-118
Gasoline	ug/L (ppb)	1,000	104	69-134

Date of Report: 11/12/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911030

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	112	112	61-133	0

Date of Report: 11/12/19
Date Received: 11/01/19
Project: SOU_0987-022_ 20191101, F&BI 911030

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 911010-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	10	122	36-166
Chloroethane	ug/L (ppb)	50	<1	124	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	122	60-136
Methylene chloride	ug/L (ppb)	50	<5	119	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	115	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	120	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	27	120 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	124	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	118	60-146
Trichloroethene	ug/L (ppb)	50	1.5	116	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	87	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	112	103	50-154	8
Chloroethane	ug/L (ppb)	50	117	109	58-146	7
1,1-Dichloroethene	ug/L (ppb)	50	116	110	67-136	5
Methylene chloride	ug/L (ppb)	50	108	102	39-148	6
trans-1,2-Dichloroethene	ug/L (ppb)	50	108	103	68-128	5
1,1-Dichloroethane	ug/L (ppb)	50	108	104	79-121	4
cis-1,2-Dichloroethene	ug/L (ppb)	50	110	106	80-123	4
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	101	98	73-132	3
1,1,1-Trichloroethane	ug/L (ppb)	50	106	100	81-125	6
Trichloroethene	ug/L (ppb)	50	95	94	79-113	1
Tetrachloroethene	ug/L (ppb)	50	93	91	76-121	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

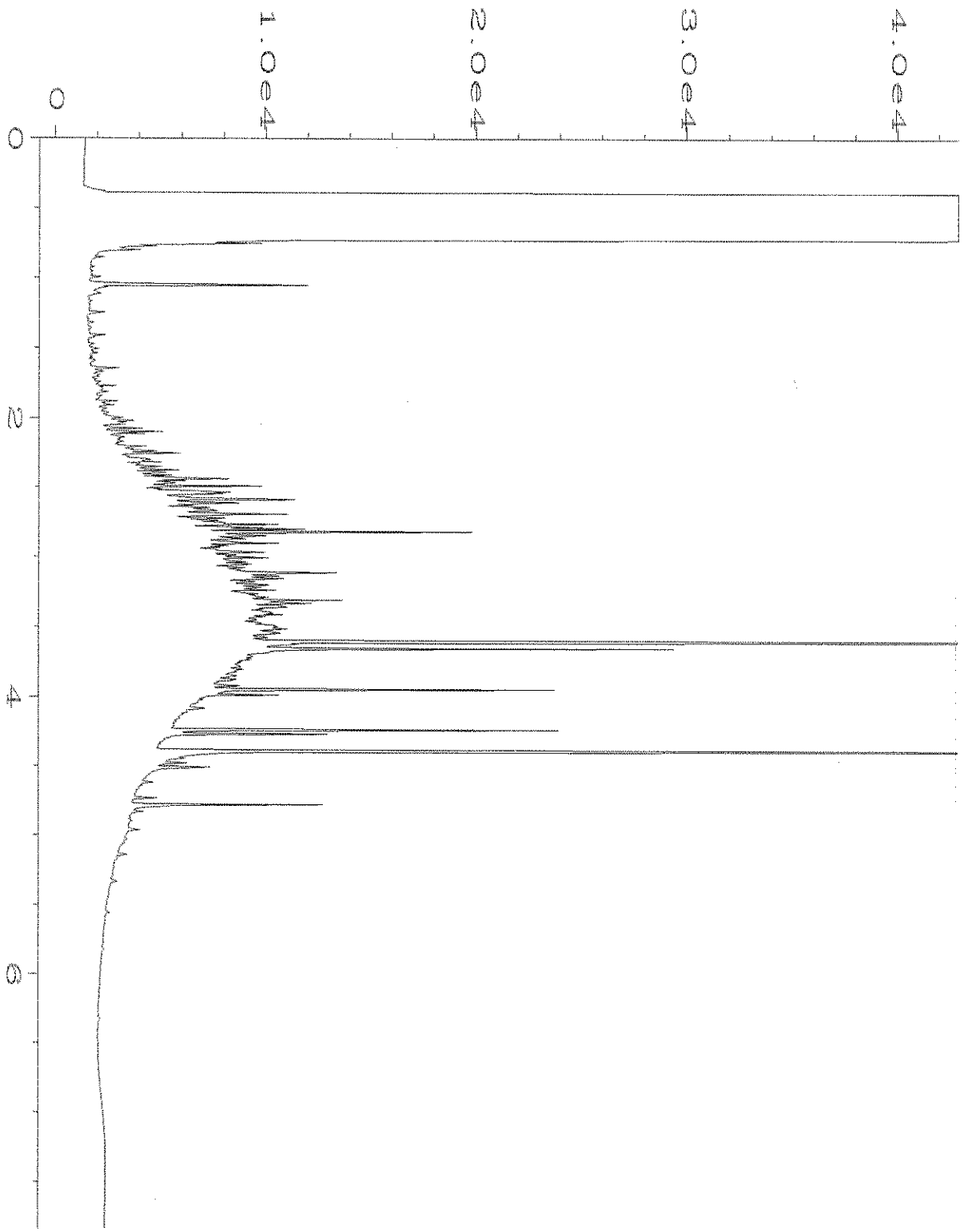
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



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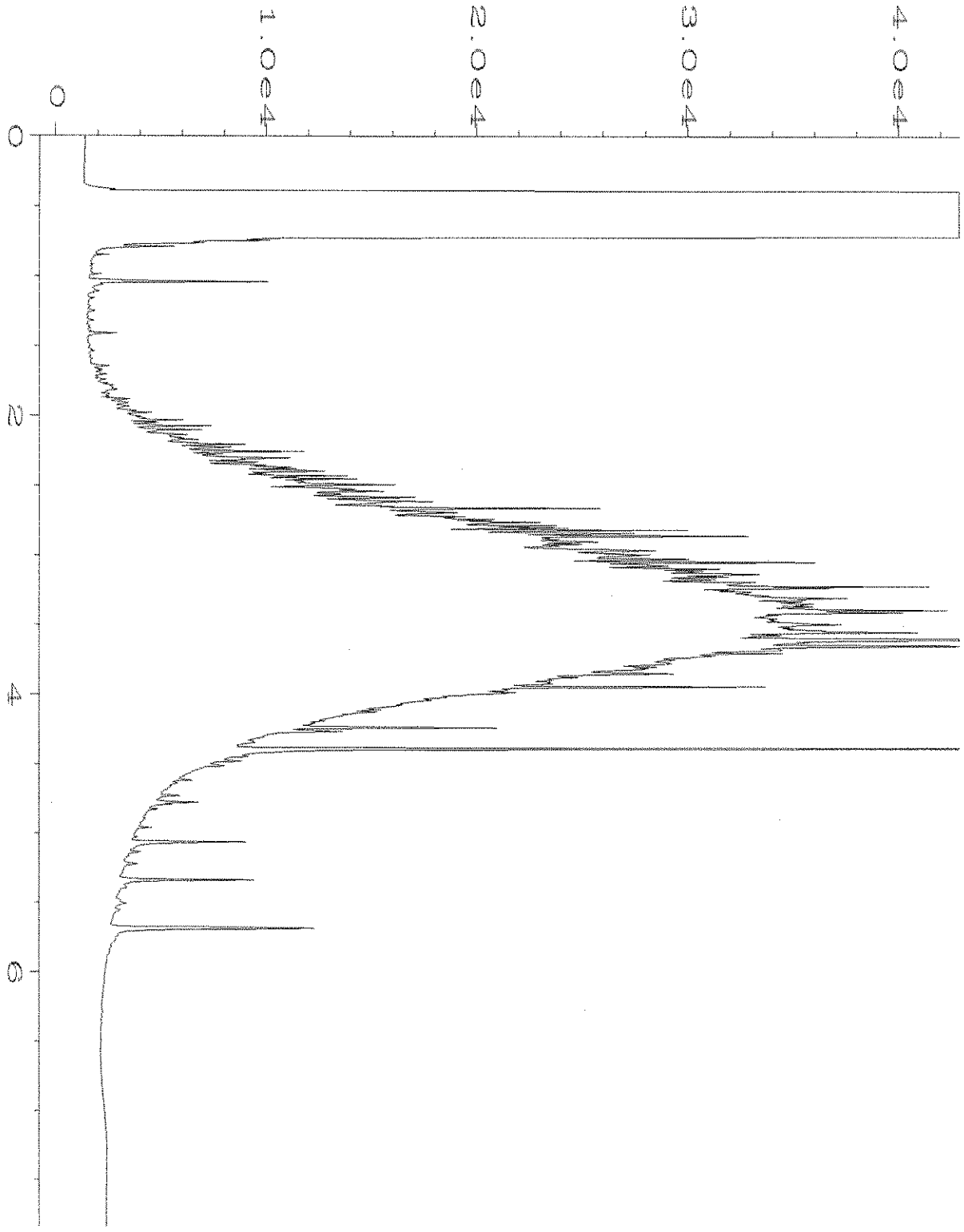
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 15
Sample Name	: 911030-03	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 05 Nov 19 02:52 PM	Instrument Method	: DX.MTH
Report Created on	: 06 Nov 19 03:09 PM	Analysis Method	: DX.MTH



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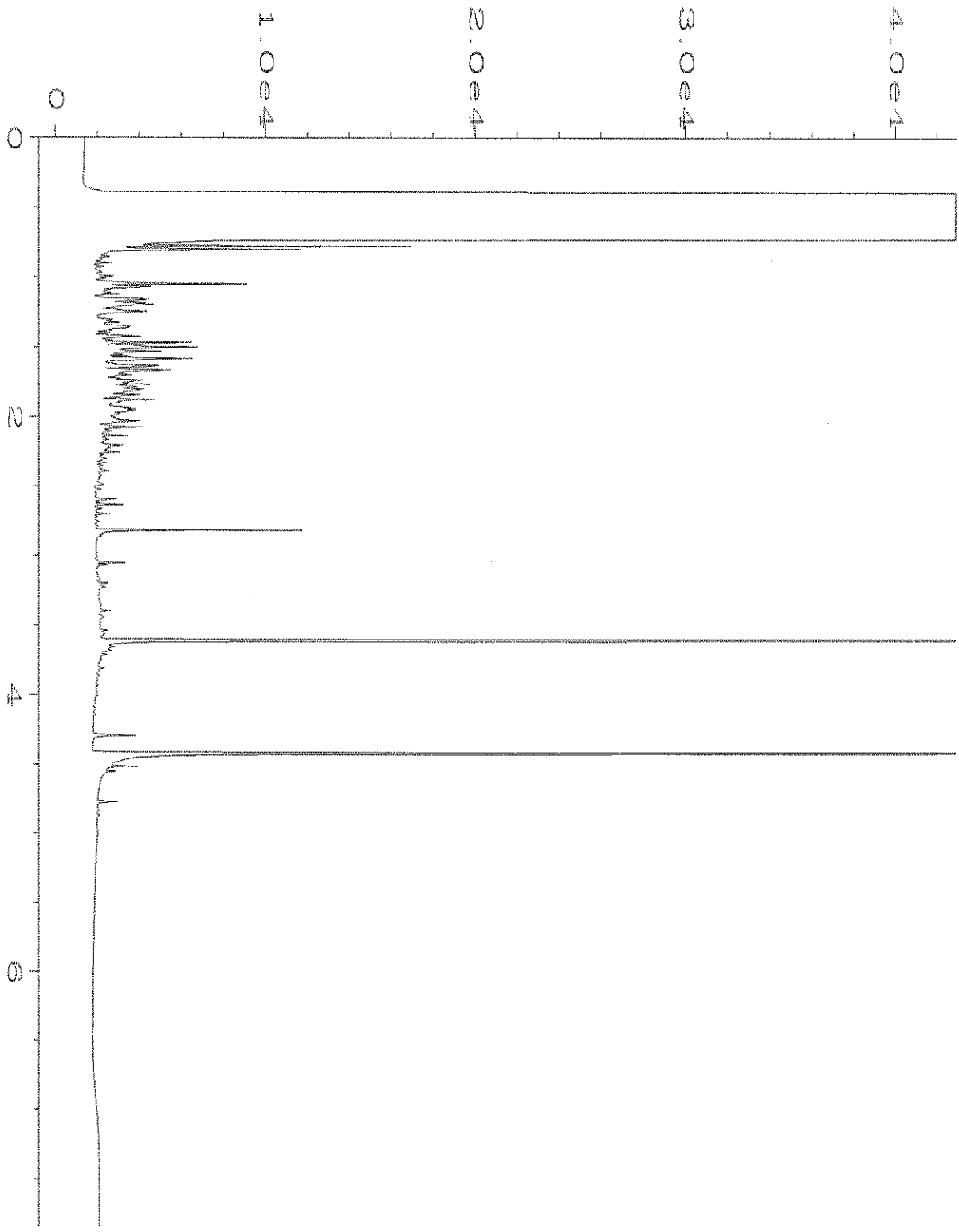
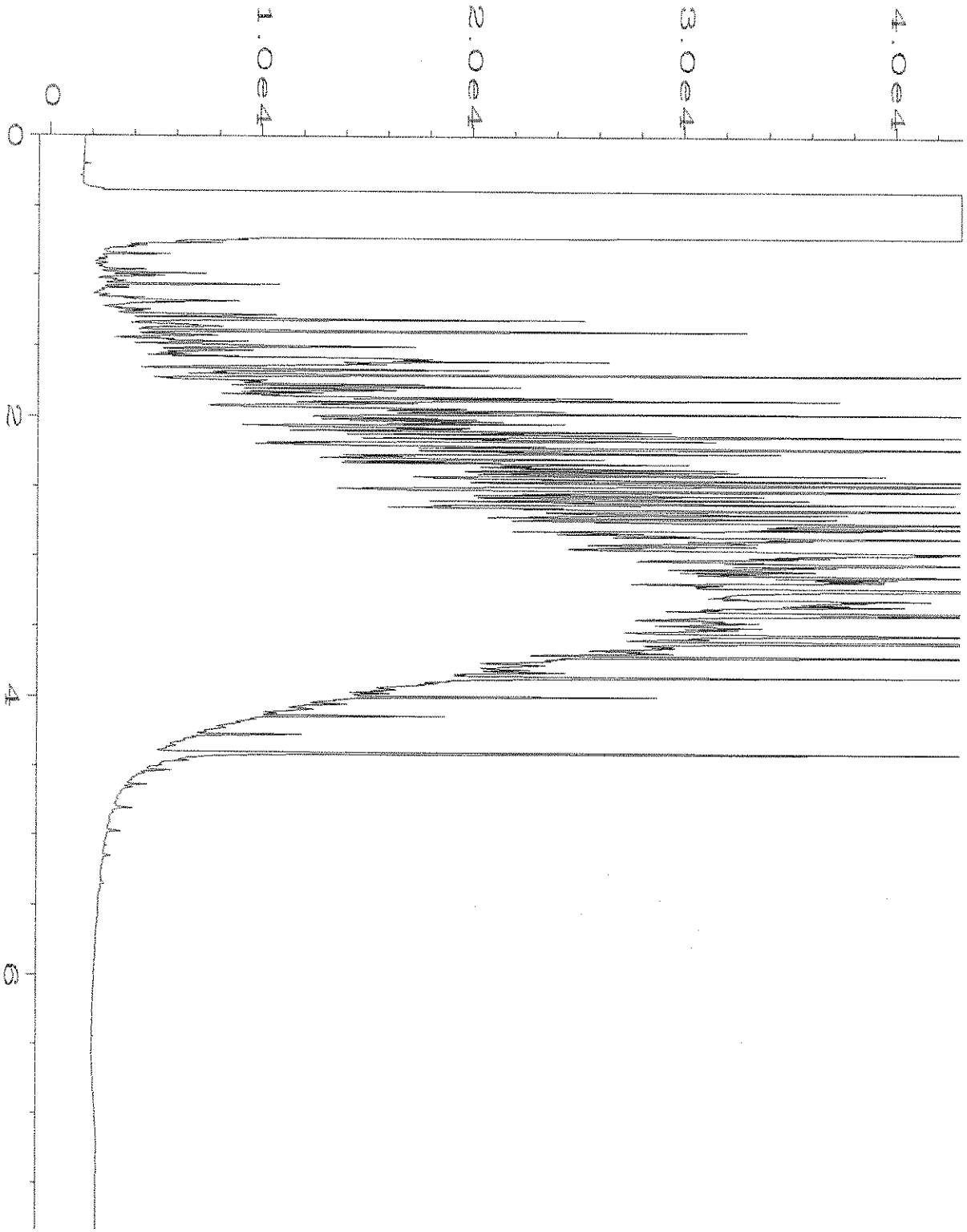
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 16
Sample Name	: 911030-05	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 05 Nov 19 03:04 PM	Instrument Method	: DX.MTH
Report Created on	: 06 Nov 19 03:10 PM	Analysis Method	: DX.MTH



Data File Name	: C:\HPCHEM\4\DATA\11-05-19\006F0301.D		
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 6
Sample Name	: 09-2707 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 05 Nov 19 01:05 PM	Instrument Method	: DX.MTH
Report Created on	: 06 Nov 19 03:09 PM	Analysis Method	: DX.MTH



Data File Name	: C:\HPCHEM\4\DATA\11-05-19\003F0201.D		
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 3
Sample Name	: 500 Dx 58-146B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 05 Nov 19 05:47 AM	Instrument Method	: DX.MTH
Report Created on	: 06 Nov 19 03:10 PM	Analysis Method	: DX.MTH

911030 ~~911023~~ (NP) **SAMPLE CHAIN OF CUSTODY** ME 11-01-19 UWS/AOH

Page # 1 of 1

Send Report to _Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS *(signature)* Kyle Cowing

PROJECT NAME/NO.	PO #
UW Laundry Property	0987-022

REMARKS ~~HOLD~~

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	cVOCs by 8260	SVOCs by 8270				Notes
P12-20191101	P12	–	01 A-G	11/01/19	0830	H2O	7				X					X-per CT
P13-20191101	P13	–	02		0945						X					11/4/19
P14-20191101	P14	–	03		1130			X	X	X	X					ME
P15-20191101	P15	–	04		1310											
P16-20191101	P16	–	05	↓	1400	↓	↓	X	X	X	X					

Samples received at 3 °C

KJT 11/01/19

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kyle Cowing	Kyle Cowing	205	11/01/19	1755
Received by:	BISRAT TADESS	FBI	11/01/19	1755
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 18, 2019

Clare Tochilin, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Ms Tochilin:

Included are the additional results from the testing of material submitted on November 1, 2019 from the SOU_ 0987-022_ 20191101, F&BI 911030 project. There are 4 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
SOU1118R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 1, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_ 0987-022_ 20191101, F&BI 911030 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
911030 -01	P12-20191101
911030 -02	P13-20191101
911030 -03	P14-20191101
911030 -04	P15-20191101
911030 -05	P16-20191101

All quality control requirements were acceptable.

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_ 0987-022_ 20191101, F&BI 911030
Date Extracted: 11/14/19
Date Analyzed: 11/14/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
P13-20191101 911030-02	910	520	124
Method Blank 09-2808 MB	<50	<250	117

Date of Report: 11/18/19
Date Received: 11/01/19
Project: SOU_ 0987-022_ 20191101, F&BI 911030

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	124	108	63-142	14

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

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hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

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J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

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js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

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L - The reported concentration was generated from a library search.

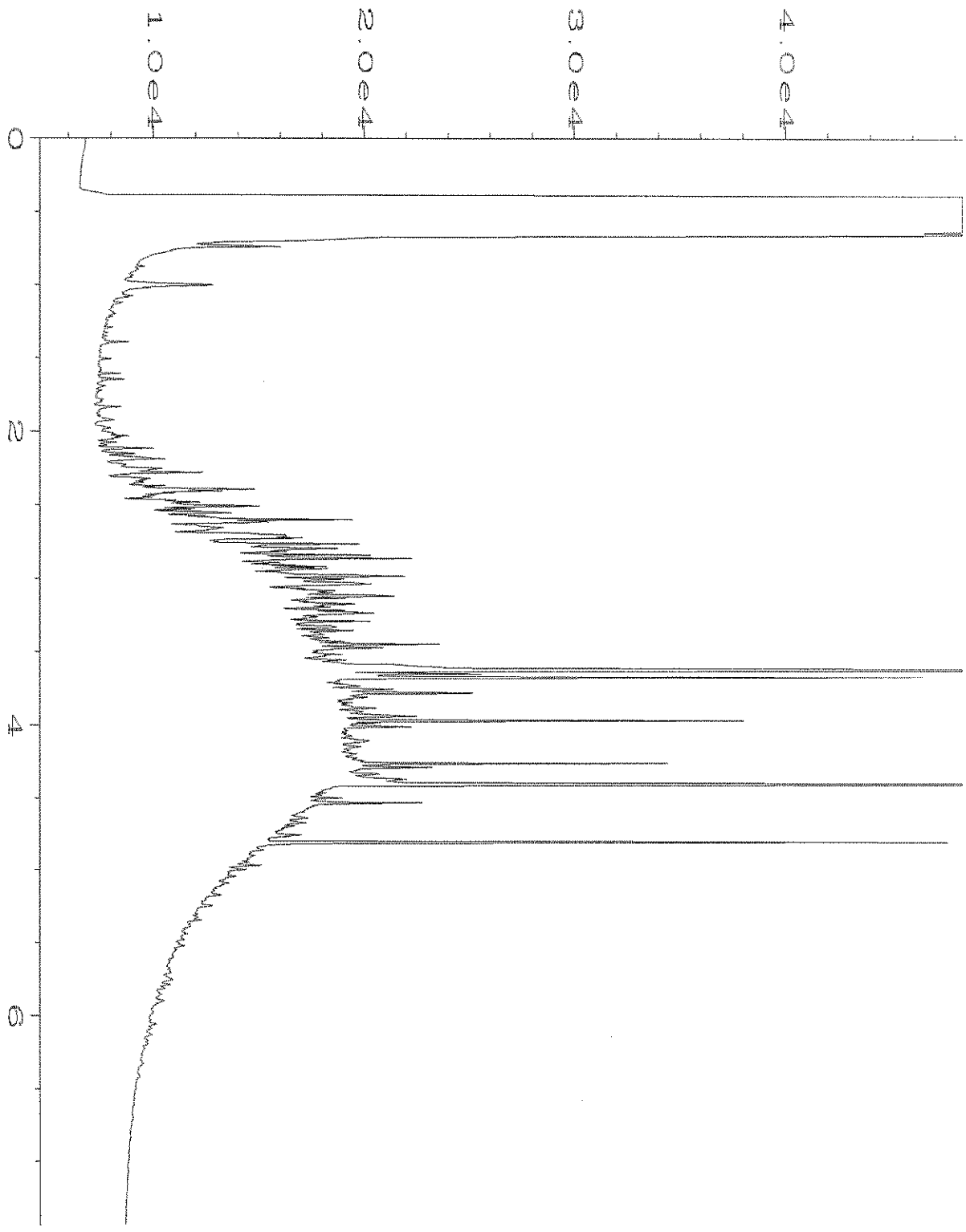
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

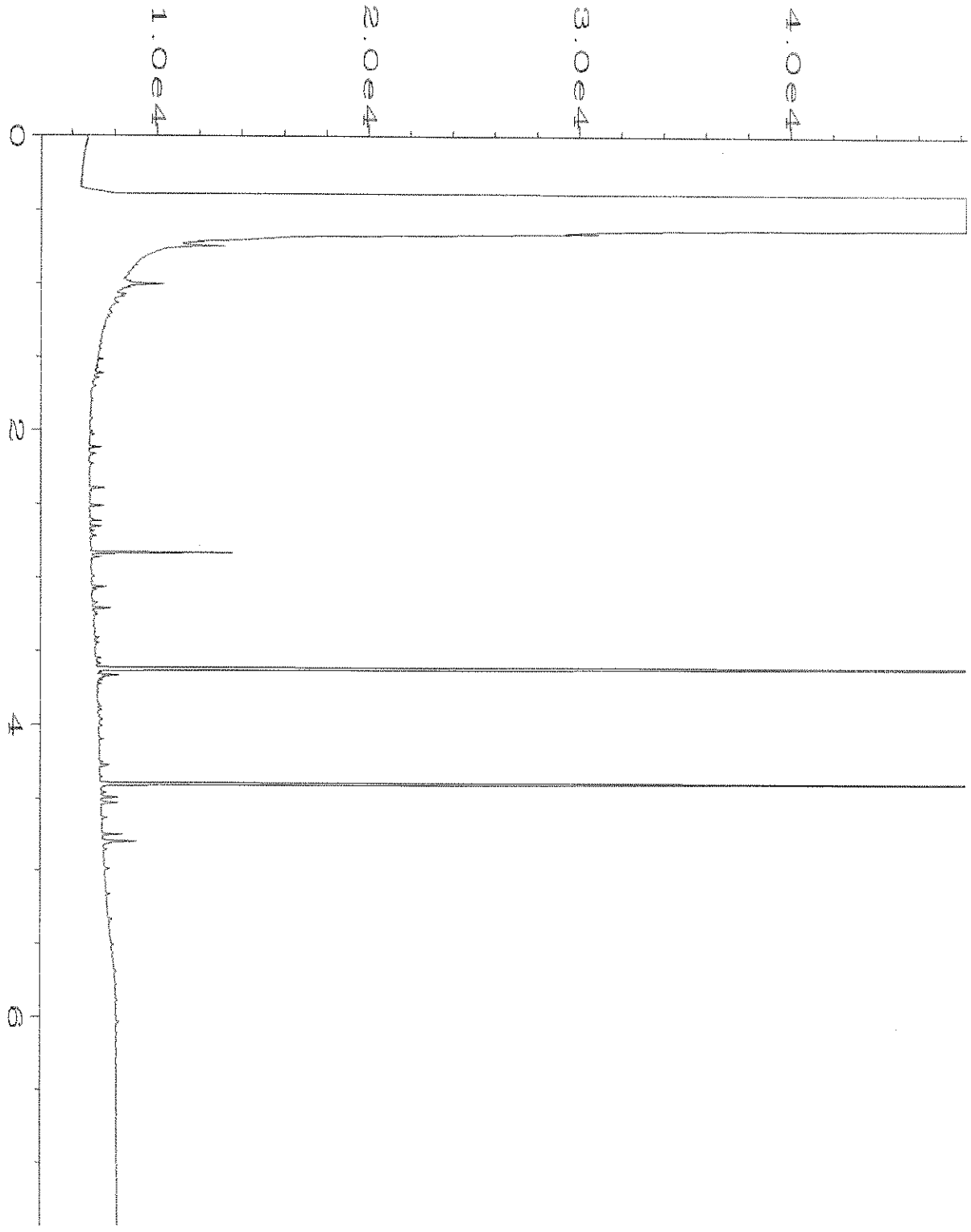
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Data File Name	: C:\HPCHEM\1\DATA\11-14-19\028F0301.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 28
Sample Name	: 911030-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 14 Nov 19 01:04 PM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 01:22 PM	Analysis Method	: DEFAULT.MTH



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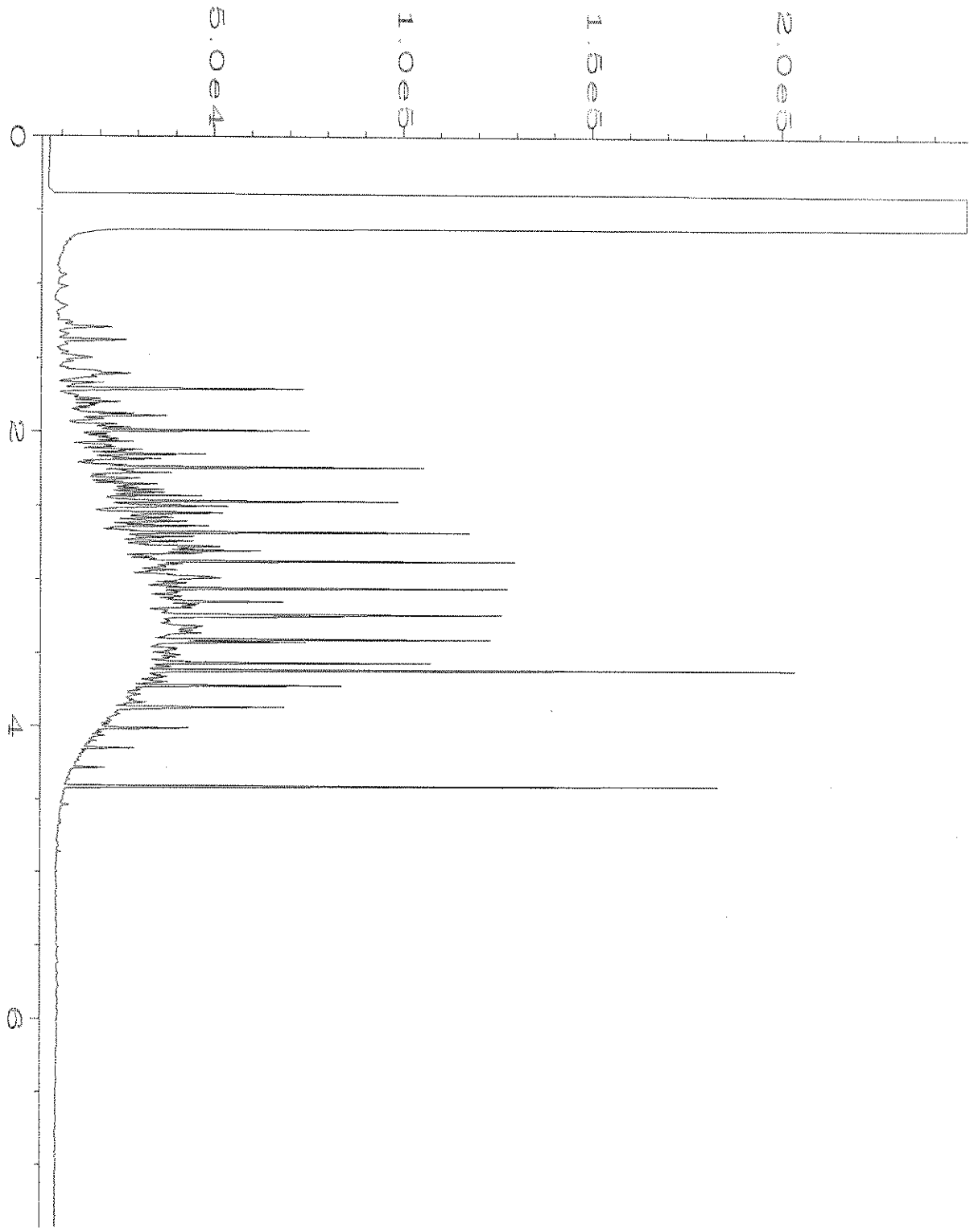
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 24
Sample Name	: 09-2808 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 14 Nov 19 12:18 PM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 01:10 PM	Analysis Method	: DEFAULT.MTH



Data File Name : C:\HPCHEM\1\DATA\11-14-19\003F0201.D

Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 3
Sample Name	: 500 Dx 58-146B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 14 Nov 19 05:53 AM	Instrument Method	: DX.MTH
Report Created on	: 14 Nov 19 01:10 PM	Analysis Method	: DEFAULT.MTH

911030 ~~911023~~ (NP) **SAMPLE CHA ' OF CUSTODY** ME 11-01-19 VWS/ADH

Page # 1 of 1

Send Report to Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Kyle Conway

PROJECT NAME/NO. UW Laundry Property

PO # 0987-022

REMARKS HOLD

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
P12-20191101	P12	–	01 A-G	11/01/19	0830	H2O	7				X					X-per CT
P13-20191101	P13	–	02		0945			(X)			X					11/4/19 ME
P14-20191101	P14	–	03		1130			X	X	X	X					
P15-20191101	P15	–	04		1310											(X)-per CT
P16-20191101	P16	–	05		1400			X	X	X	X					11/13/19 24H TAT ME

Samples received at 3 °C

KLT 11/01/19

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Kyle Conway	Kyle Conway	SES	11/01/19	1755
Received by:	BRENT TADESSE	FBI	11/01/19	1755
Relinquished by:				
Received by:				