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

SUPPLEMENTAL REMEDIAL INVESTIGATION AND WELL DECOMMISSIONING REPORT

Property:
North Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Prepared for:
North Colfax Group
7180 Koll Center Parkway #100
Pleasanton, California

Report Date:
March 5, 2020

DRAFT – ISSUED FOR REGULATORY REVIEW

Supplemental Remedial Investigation and Well Decommissioning Report

Prepared for:

The North Colfax Group
7180 Koll Center Parkway #100
Pleasanton, California

North Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Project No.: 0592-001-01

Prepared by:

DRAFT

_____
Jonathan Loeffler, LG
Project Geologist

Reviewed by:

DRAFT

_____
Ryan K. Bixby, LG
Principal

March 5, 2020

SoundEarth Strategies

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CAP	Cleanup Action Plan
COC	chemical of concern
Cenex Property	those portions of Whitman County tax parcel numbers 1-0135-00-01-01-0000 and 8-0195-00-00-00-0323 located to the north of the railroad tracks
Colfax Grange Property	those portions of Whitman County tax parcel numbers 1-0135-00-01-15-0000 and 8-0195-00-00-00-0323 located to the south of the railroad tracks
Ecology	Washington State Department of Ecology
EPA	US Environmental Protection Agency
GRPH	gasoline-range petroleum hydrocarbons
mg/kg	milligrams per kilogram
MTBE	methyl tertiary-butyl ether
North Colfax Group	PetroSun Fuel, Inc. (currently Pacific Convenience & Fuel, LLC); TOC Holdings Co. (formerly Time Oil Co.); CHS, Inc.; and Colfax Grange Supply Company, Inc. (currently Four Star Supply), collectively
NWTPH	Northwest Total Petroleum Hydrocarbon
PID	photoionization detector
RI Report	*Remedial Investigation Report, North Colfax Petroleum Contamination Site, North Main Street and East Tyler Street, Colfax, Washington,* prepared by SoundEarth Strategies, Inc., and dated January 4, 2010
ROW	right-of-way
SAP	Sampling and Analysis Plan
SCM-RIWP	Site Conceptual Model and Remedial Investigation Work Plan
SES	Sound Environmental Strategies Corporation

ACRONYMS AND ABBREVIATIONS (CONTINUED)

the Site	the full lateral and vertical extent of contamination that has resulted from the former and current operation of retail gasoline service stations on the properties located along the east side of North Main Street, at the northeast corner of its intersection with East Harrison Street and on the northeast and southeast corners of its intersection with East Tyler Street in Colfax, Washington
SoundEarth	SoundEarth Strategies, Inc.
SRIWD	supplemental remedial investigation and well decommissioning
SRIWDWP	Supplemental Remedial Investigation and Well Decommissioning Work Plan
Time Oil Property	property at 804 North Main Street
WAC	Washington Administrative Code

EXECUTIVE SUMMARY

SoundEarth Strategies, Inc. (SoundEarth) has prepared this Supplemental Remedial Investigation and Well Decommissioning report (SRIWD) for the North Colfax Petroleum Contamination Site, located at the intersection of North Main Street and East Tyler Street in Colfax, Washington (the Site), on behalf of PetroSun Fuel, Inc. (currently Pacific Convenience & Fuel, LLC); TOC Holdings Co. (formerly Time Oil Co.); CHS, Inc.; and Colfax Grange Supply Company, Inc. (currently Four Star Supply); collectively, the North Colfax Group. The SRIWD was prepared in general accordance with the Washington State Model Toxics Control Act promulgated in the Washington Administrative Code (WAC) Chapter 173-340-350.

The Site, as it is currently defined, is comprised of an area that includes several tax parcels that are currently occupied or have historically been occupied by gasoline stations. These properties are located along the east side of North Main Street where it intersects with East Tyler Street and East Harrison Street, and the properties are referred to in this report as the Time Oil, Cenex, and Colfax Grange properties.

Soil sampling completed on the Site in 2014 indicated elevated concentrations of petroleum hydrocarbons on the Colfax Grange and Time Oil properties within the boundaries of the North Colfax Petroleum Contamination Site. In October 2019, sampling and analytical testing of soil were completed at locations where soil impacts were previously encountered during the 2014 soil sampling event to assess the current extent of soil impacts beneath the Site and to evaluate the efficacy of natural attenuation in reducing the concentrations of petroleum hydrocarbons in soil over time. Confirmational soil sampling results for each property within the Site are summarized below:

- **Colfax Grange Property.** One confirmational soil boring (SP36) was advanced at the Colfax Grange property. Soil collected from boring SP36 at a depth of 11 feet below ground surface (bgs) contained a concentration of gasoline-range petroleum hydrocarbons (GRPH) that exceeded the 30 milligrams per kilogram (mg/kg) cleanup level. However, the concentration of GRPH detected in 2019 boring SP36 (260 mg/kg) decreased approximately 28 percent relative to the concentration detected in the 2014 boring SP21 (360 mg/kg). These results show that the concentration, and likely the extent, of soil impacts beneath the Colfax Grange property have decreased since the time of the 2014 sampling, as shown on Figure 2.
- **Time Oil Property.** Three soil borings (SP37 through SP39) were advanced on or adjacent to the Time Oil property. Soil boring (SP37) was advanced in the North Main Street right-of-way adjacent to the west of the Time Oil property, where a concentration of GRPH (290 mg/kg) that exceeded the cleanup level had been encountered in 2014 boring SP32. The GRPH concentration encountered in 2019 boring SP37 was less than 5 mg/kg, which demonstrates that the soil impacts at this location have attenuated to below the cleanup level.

  Boring SP38 was advanced beneath the southwestern portion of the Time Oil property, where concentrations of GRPH and naphthalene that exceeded their respective cleanup levels had been previously encountered in 2014 boring SP33. The soil sample collected from a depth of 8 feet bgs in 2019 boring SP38 contained a concentration of naphthalene (2.9 mg/kg) that was below the cleanup level of 5 mg/kg, thereby demonstrating that naphthalene concentrations in soil throughout the Site had attenuated to below the cleanup level. The GRPH concentration in

soil collected at a depth of 8 feet from this vicinity had been reduced from 2,000 mg/kg in 2014 boring SP33 to 1,200 mg/kg in 2019 boring SP38. The concentration of GRPH in soil at a depth of 12 feet bgs in this location had attenuated from 230 mg/kg in 2014 boring SP33 to 33 mg/kg in 2019 boring SP38. Although the soil samples collected from 8 and 12 feet bgs in 2019 boring SP38 still contained GRPH concentrations that exceeded the cleanup level of 30 mg/kg, the concentrations at both depths had been significantly reduced, confirming that natural attenuation is occurring at this location.

Boring SP39 was advanced beneath the canopy of the pump islands on the Time Oil property, where GRPH, benzene, and methyl tertiary-butyl ether (MTBE) had been detected at concentrations above their respective cleanup level in 2014 boring SP34. In 2014, GRPH, benzene, and MTBE were detected at 82 mg/kg, 0.41 mg/kg, and 0.47 mg/kg in the soil sample collected from 8 feet bgs, respectively. The soil sample collected from the same depth in 2019 boring SP39 revealed an increased concentration of GRPH (660 mg/kg) relative to 2014, which is a function of the heterogeneity of contaminant distribution in soil and is not suspected to be a result of a post-2014 release, as evidenced by the fact that the concentrations of benzene (0.033 mg/kg) and MTBE (less than 0.05 mg/kg) in the 2019 sample were roughly one order of magnitude lower than the concentrations detected in 2014. The soil sample collected from this vicinity in 2014 at a depth of 12 feet contained concentrations of GRPH and benzene (140 mg/kg and 0.4 mg/kg) that exceeded their respective cleanup levels, but neither GRPH nor benzene was detected in the soil sample collected from this depth in 2019 boring SP39, demonstrating that residual impacts at this location are limited to soil in the uppermost 12 feet.

- **Cenex Property.** 2014 soil sampling results indicated that the soil contamination historically present beneath the Cenex property has attenuated to the point that the Cenex property is in compliance with Site cleanup levels. As such, no further assessment or sampling of soil was conducted on the Cenex property during this phase of work.

Concurrent with the October 2019 soil sampling activities, a licensed driller decommissioned 30 monitoring wells (MW02, MW04, MW05, MW08 through MW12, MW15 through MW32, and CMW02 through CMW05) in accordance with WAC 173-160-460.

This executive summary is presented solely for introductory purposes, and the information contained in this section should be used only in conjunction with the full text of this report. A complete description of the project, Site conditions, investigative methods, and investigation results is contained within this report.

1.0 INTRODUCTION

SoundEarth Strategies, Inc. (SoundEarth; formerly Sound Environmental Strategies Corporation [SES]) has prepared this Supplemental Remedial Investigation and Well Decommissioning report (SRIWD) for the North Colfax Petroleum Contamination Site, located at the intersection of North Main Street and East Tyler Street in Colfax, Washington (the Site; Figure 1), on behalf of PetroSun Fuel, Inc. (currently Pacific Convenience & Fuel, LLC); TOC Holdings Co. (formerly Time Oil Co.); CHS, Inc.; and Colfax Grange Supply Company, Inc. (Colfax Grange); collectively, the North Colfax Group. This SRIWD was prepared for submittal to the Washington State Department of Ecology (Ecology), pursuant to Ecology's Agreed Order No. DE 4599, dated July 11, 2007. The SRIWD was prepared in general accordance with the Washington State Model Toxics Control Act promulgated in the Washington Administrative Code Chapter 173-340-350 (WAC 173-340-350).

As established in WAC 173-340-200, the "Site" is defined by the full lateral and vertical extent of contamination that has resulted from the former and current operation of retail gasoline service stations on the properties located along the east side of North Main Street, where it intersects with East Tyler Street and East Harrison Street and on the northeast and southeast corners of its intersection with East Tyler Street. These properties are referred to in this report as the Time Oil, Cenex, and Colfax Grange properties. The properties and current Site boundary are depicted on Figure 2.

1.1 DOCUMENT PURPOSE

The selected cleanup remedy for the Site from the Cleanup Action Plan (CAP; Ecology 2013) is natural attenuation and maintenance of an impervious cap, supplemented with groundwater monitoring for selected chemicals of concern (COCs) and natural attenuation parameters. The CAP concluded that natural attenuation would eventually result in compliance with the Site cleanup levels. The purpose of this SRIWD is to assess the current extent of soil impacts beneath the Site and to evaluate the efficacy of natural attenuation in reducing the concentration of petroleum hydrocarbons in soil over time. The SRIWD also documents the decommissioning of Ecology-approved monitoring wells.

1.2 SCOPE OF WORK

The scope of work for the SRIWD was developed in order to sample soil in locations where 2014 soil sampling indicated concentrations of petroleum hydrocarbons and associated constituents exceeded the Site cleanup levels, as well as decommission monitoring wells that Ecology approved for decommissioning, as outlined in the Draft Supplemental Remedial Investigation and Well Decommissioning Work Plan (SRIWDWP), dated August 9, 2019 (SoundEarth 2019). The work was performed in general accordance with Site Conceptual Model and Remedial Investigation Work Plan (SCM-RIWP), dated January 21, 2008 (SES 2008), except where noted in the SRIWDWP.

1.3 SITE LOCATION AND DESCRIPTION

The Site has previously been described in detail in the Final Remedial Investigation Report (RI Report; SES 2010) and Feasibility Study/Disproportionate Cost Estimate (SoundEarth 2012). The Site is generally located near the intersection of North Main Street and East Tyler Street in Colfax, Washington, and includes all of the former Time Oil property, the Cenex property, a portion of the Colfax Grange property, and portions of North Main Street and East Tyler Street. The Site boundary definition is depicted on Figure 2.

2.0 SUPPLEMENTAL REMEDIAL INVESTIGATION AND WELL DECOMMISSIONING

The activities performed as part of the SRIWD are described in the following sections. The analytical results of the 2019 soil samples are summarized in Table 1. Boring locations for the SRIWD are graphically depicted on Figure 2. Decommissioned monitoring wells are graphically depicted on Figure 3.

2.1 PRE-FIELD ACTIVITIES

Before soil sampling and well decommissioning activities were conducted, traffic control plans were prepared and public and private utility locates were conducted. Utility maps from the Colfax Public Works Department were also reviewed to identify where proposed sample locations might intersect or otherwise interfere with known utility corridors.

Subcontractors that provided services on the project included a private utility locator (Utilities Plus, Inc.), a concrete corer (A-1 Concrete Cutting), a traffic control signage provider (National Barricade), drilling contractors (ESN Northwest, Inc. and Environmental West Exploration, Inc.), and an Ecology-accredited analytical laboratory (Friedman & Bruya, Inc.). Prior to conducting the fieldwork, a Health and Safety Plan was prepared for use during the subsurface soil sampling and well decommissioning activities.

2.2 SOIL SAMPLING

A description of the soil sampling activities conducted in the course of the SRIWD is provided below.

2.2.1 Subsurface Soil Samples

On October 9, 2019, SoundEarth personnel oversaw the advancement of four push-probe borings (SP36 through SP39) on the Site for the purposes of collecting, screening, and submitting soil samples for analytical testing (Figure 2). The borings were advanced by ESN Northwest, Inc. of Olympia, Washington, using a truck-mounted push-probe drill rig to depths of approximately 15 feet below ground surface (bgs).

Relatively undisturbed soil samples were obtained from the borings throughout the maximum depths explored using the procedures described in the Sampling and Analysis Plan (SAP) of the SCM-RIWP (SES 2008) and the SRIWDWP (SoundEarth 2019). Selected portions of each recovered soil core sample were placed in a plastic bag so that the presence or absence of volatile organic compounds could be quantified using a photoionization detector (PID). The prescribed intervals outlined in the SRIWDWP of each recovered soil core were placed into laboratory-prepared glassware in accordance with US Environmental Protection Agency (EPA) Method 5035A. Subsurface lithology was classified using the Unified Soil Classification System; boring logs are included in Appendix A.

Soil samples were collected from each boring and were submitted for analytical testing. The samples were analyzed for one or more of the following COCs, in accordance with the SRIWDWP:

- Gasoline-range petroleum hydrocarbons (GRPH) by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-Gx
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8021B
- Naphthalene and methyl tertiary-butyl ether (MTBE) by EPA Method 8260C

2.3 WELL DECOMMISSIONING

On October 9, 2019, Environmental West Exploration, Inc. of Spokane, Washington (a licensed driller), decommissioned 30 monitoring wells (MW02, MW04, MW05, MW08 through MW12, MW15 through MW32, and CMW02 through CMW05) in accordance with WAC 173-160-460 by filling well casings from bottom to top with bentonite. The well monuments were subsequently filled with concrete. Five monitoring wells (MW01, MW03, MW06, MW07, and MW13) remain on the Site at locations on or downgradient of the Time Oil Property (Figure 3).

3.0 RESULTS

This section includes a description of subsurface conditions observed during drilling and soil screening, as well as the results of soil samples submitted for analytical testing. The analytical results of the soil samples collected from locations where soil impacts were encountered in 2014 are summarized in Table 2; results of soil samples collected for the current phase of work are summarized in Table 1. Boring locations and analytical results for the current phase of work are graphically depicted on Figure 2. Laboratory analytical reports are included as Appendix B.

3.1 SUBSURFACE CONDITIONS

The borings completed in 2019 on the Colfax Grange property, Time Oil property, and the North Main Street right-of-way (ROW) generally disclosed near-surface native sandy silt and silty sand that extended to depths of approximately 10 to 15 feet bgs. The upper sand and silt horizons were generally underlain by gravel with silt and sand throughout the full depths explored. Groundwater was observed at approximately 10 feet bgs in the borings. These conditions are very similar to those disclosed in other Site borings as described in the RI Report (SES 2010) and SRI Report (SES 2014). Copies of the current borings logs are included in Appendix A.

Recovered soil samples were field screened for the presence of obvious petroleum hydrocarbon impacts, such as stains, odors, sheens, or significant PID readings. Screening results are discussed below and are organized by the individual properties.

Colfax Grange Property. Soils screened from depths of approximately 5 to 11 feet in soil boring SP36 exhibited faint to strong hydrocarbon odors and elevated PID readings. The hydrocarbon odors dissipated at depths below 11 feet bgs.

Time Oil Property. Soils screened from depths of approximately 5 to 12 feet in soil borings SP38 and SP39 exhibited moderate to strong petroleum hydrocarbon odors and elevated PID readings. Soils from depths greater than 12 feet bgs in these borings exhibited faint petroleum hydrocarbon odors. Soils screened from soil boring SP37, adjacent to the west of the Time Oil Property in the North Main Street ROW, did not exhibit obvious signs of petroleum hydrocarbon impacts.

3.2 SOIL RESULTS

Analytical soil results for the individual properties within the Site are discussed below:

- **Colfax Grange Property.** One soil boring (SP36) was advanced at the Colfax Grange property. Soil collected from a depth of 11 feet bgs in boring SP36 contained a concentration of GRPH (260 milligrams per kilogram [mg/kg]) that exceeded the 30 mg/kg cleanup level.

- **Time Oil Property.** Three soil borings (SP37 through SP39) were advanced on or adjacent to the Time Oil property. Soil collected from boring SP37, located in the North Main Street ROW adjacent to the west of the Time Oil Property, did not contain concentrations of GRPH that exceeded the laboratory's lower detection limit or the cleanup level. Soil samples collected from depths of 8 and 12 feet bgs in boring SP38 and 8 feet bgs in boring SP39 contained GRPH and/or benzene at concentrations that exceeded their respective cleanup levels. A soil sample collected from a depth of 8 feet bgs in SP38 contained a concentration of naphthalene that was below the cleanup level of 5 mg/kg. Concentrations of BTEX and MTBE in a soil sample collected from a depth of 8 feet bgs in boring SP39 were below their respective method detection limits. A soil sample collected from a depth of 8 feet bgs in SP37 did not contain a concentration of GRPH above the method detection limit.

3.3 DATA QUALITY REVIEW

SoundEarth reviewed laboratory quality control data provided with the laboratory analytical reports to evaluate the usability of analytical results to meet the objectives for the SRIWD. The results of SoundEarth's review of laboratory quality control data are as follows:

- All laboratory quality assurance/quality control criteria were within limits defined in the SAP.
- All data packages/laboratory reports were complete, and all samples were received properly preserved and in good condition.
- Recoveries for surrogates, matrix spikes, matrix spike duplicates, laboratory control standards, and duplicates and relative percent differences for matrix spike/matrix spike duplicates were within the method limits.
- Trip blanks and rinsate blanks were inadvertently not submitted for laboratory analysis, which is a deviation from the SAP.

The analytical results for the soil samples are considered to be usable to meet the objectives of the SRIWD. Copies of the laboratory analytical reports are provided as Appendix B.

4.0 CONCLUSIONS

Analytical results for soil samples collected from soil borings advanced at the Colfax Grange property, Time Oil property, and within the North Main Street ROW in 2014 were compared to analytical results for soil samples collected from confirmational soil borings advanced in the immediate vicinity of these borings in 2019 and are discussed below.

One soil sample collected from the confirmational soil boring advanced on the Colfax Grange property exhibited a GRPH concentration that exceeded the Site cleanup level; however, the concentration was less than the concentration in the soil sample collected from the adjacent 2014 boring.

- The concentration of GRPH detected in 2019 boring SP36 (260 mg/kg) decreased approximately 28 percent relative to the concentration detected in the 2014 boring SP21 (360 mg/kg). As such, it is apparent that the magnitude and extent of soil impacts beneath the Colfax Grange property have decreased since the time of the 2014 sampling, as shown on Figure 2.

The results of confirmational soil sampling indicate that soil beneath the North Main Street right-of-way (adjacent to the Time Oil property) is compliant with Site cleanup levels.

- The concentration of GRPH detected in the soil sample collected from 8 feet bgs in 2019 boring SP37 (less than 5 mg/kg) was below the Site cleanup level had decreased at least 98 percent relative to the concentration detected in the soil sample collected from 8 feet bgs in 2014 boring SP32 (290 mg/kg). Based on these results, no additional investigation of soil beneath the North Main Street ROW appears warranted.

Soil samples collected from the two confirmational soil borings advanced on the Time Oil property exhibited petroleum hydrocarbon constituent concentrations in excess of Site cleanup levels, but the concentrations were lower than those encountered during the 2014 investigation, except in one case, as described below.

- The concentration of GRPH detected in the soil sample collected from 8 feet bgs in 2019 boring SP38 (1,200 mg/kg) decreased approximately 40 percent relative to the concentration detected in the soil sample collected from 8 feet bgs in 2014 boring SP33 (2,000 mg/kg).
- The concentration of GRPH detected in the soil sample collected from 12 feet bgs in 2019 boring SP38 (33 mg/kg) decreased approximately 86 percent relative to the concentration detected in the soil sample collected from 12 feet bgs in 2014 boring SP33 (230 mg/kg).
- The concentration of naphthalene detected in the soil sample collected from 8 feet bgs in 2019 boring SP38 (2.9 mg/kg) was below the Site cleanup level, and had decreased at least 83 percent relative to the concentration detected in the soil sample collected from 8 feet bgs in 2014 boring SP33 (17 mg/kg).
- The concentration of GRPH detected in the soil sample collected from 8 feet bgs in 2019 boring SP39 (660 mg/kg) increased relative to the concentration detected in the soil sample collected from 8 feet bgs in 2014 boring SP34 (82 mg/kg).
- The GRPH concentration in the soil sample collected from 12 feet bgs in 2019 boring SP39 was less than the laboratory reporting limit of 5 mg/kg. Relative to the concentration detected in the adjacent 2014 boring SP34 soil sample (140 mg/kg), this represents a reduction of at least 96 percent.
- The concentration of benzene detected in the soil sample collected from 8 feet bgs in 2019 boring SP39 (0.033 mg/kg) decreased approximately 92 percent relative to the concentration detected in the soil sample collected from 8 feet bgs in 2014 boring SP34 (0.41 mg/kg). The benzene concentration detected in the 2019 soil sample only slightly exceeded the Site cleanup level of 0.03 mg/kg, and represents the only exceedance of the benzene cleanup level in soil throughout the Site.
- The concentration of benzene in the soil sample collected from 12 feet bgs in 2019 boring SP39 (less than 0.02 mg/kg) decreased at least 95 percent relative to the concentration detected in the soil sample collected from 12 feet bgs in 2014 boring SP34 (0.40 mg/kg) and was below the Site cleanup level.
- The concentration of MTBE detected in the soil sample collected from 8 feet bgs in 2019 boring SP39 (less than 0.05 mg/kg) decreased at least 89 percent relative to the concentration detected in the soil sample collected from 8 feet bgs in 2014 boring SP34 (0.47 mg/kg) and was below the Site cleanup level.

In the one instance where the GRPH concentration in a 2019 soil sample (SP39-08) increased relative to the concentration in its adjacent 2014 soil sample (SP34-08), the increase was concluded to be the result of the heterogeneous nature of contaminant distribution in soil rather than from a post-2014 release of GRPH. This conclusion is supported by the fact that the concentrations of both benzene and MTBE in the 2019 soil sample were significantly reduced relative to those encountered in the 2014 soil sample. In all other cases, COC concentrations have decreased relative to the comparable 2014 results, as such, it is apparent that natural attenuation of soil impacts beneath the Site is occurring and that the extent and magnitude of soil contamination beneath the Site are shrinking, as shown on Figure 2.

5.0 REFERENCES

Sound Environmental Strategies Corporation (SES). 2008. *Site Conceptual Model and Remedial Investigation Work Plan. Colfax Petroleum Contamination Site, North Main Street and East Tyler Street, Colfax, Washington*. January 21.

_____. 2010. *Final Remedial Investigation Report. North Colfax Petroleum Contamination Site, North Main Street and East Tyler Street, Colfax, Washington*. January 4.

SoundEarth Strategies, Inc. (SoundEarth). 2012. *Feasibility Study/Disproportionate Cost Analysis, North Colfax Petroleum Contamination Site, North Main Street and East Tyler Street, Colfax, Washington*. March 16.

_____. 2014. *Supplemental Remedial Investigation Work Plan, North Colfax Petroleum Contamination Site, North Main Street and East Tyler Street, Colfax, Washington*. June 18.

_____. 2019. *Draft Supplemental Remedial Investigation and Well Decommissioning Work Plan, North Colfax Petroleum Contamination Site, North Main Street and East Tyler Street, Colfax, Washington*. August 9.

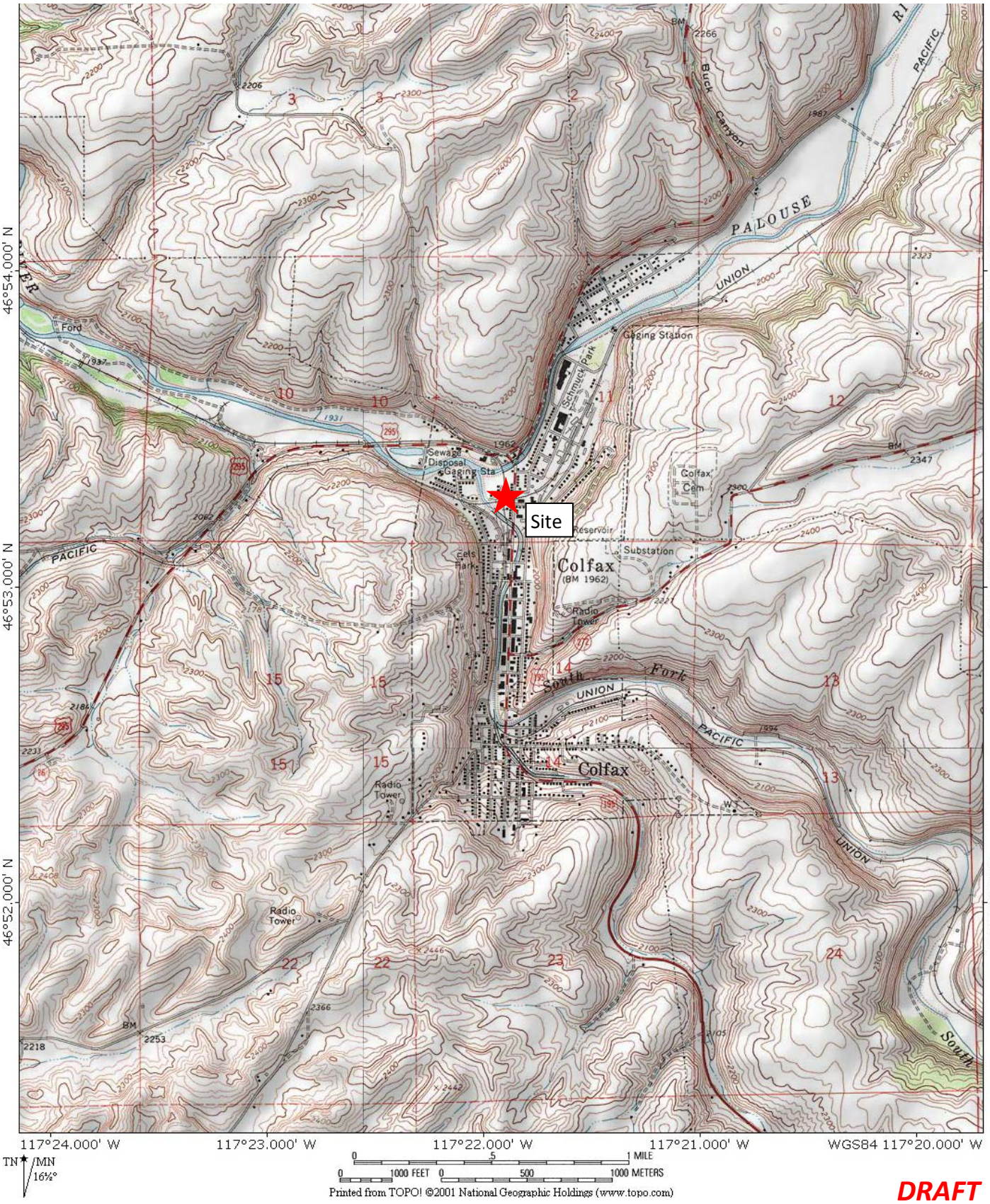
Washington State Department of Ecology (Ecology). 2013. *Cleanup Action Plan, North Colfax Petroleum Contamination Site, Cleanup Site ID 11557, Facility Site ID 4272, Colfax, Washington*. March.

6.0 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, nor from 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. This report is for the exclusive use of the North Colfax Group and its representatives.

FIGURES



DRAFT

SoundEarth Strategies

Date: August 19, 2008
Drawn By: RLH
Chk By: RKB
Project No.: 0592-001
File ID: 0592_fig1_to.doc

North Colfax Petroleum Contamination Site
North Main Street and
East Tyler Street
Colfax, Washington

FIGURE 1

Site Location Map

12/9/2019

P:\0592 NORTH COLFAX GROUP\0592-001 N. COLFAX PETROLEUM CONTAMINATION SITE\TECHNICAL\CAD\2019\2019 SRWD\0592_001_2019_SOIL-RES.DWG

N

Sample Location	Sample Identification	Date Sampled	Sample Depth (feet)	Analytical Results (milligrams per kilogram) GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
SP21	SP21-07	07/08/14	7	<2	--	--	--	--	--	--
	SP21-11		11	360	--	--	--	--	--	--
	SP21-15		15	<2	--	--	--	--	--	--
SP36	SP36-11	10/09/19	11	260	--	--	--	--	--	--
MTCA Method A Cleanup Level				30	0.03	7	6	9	0.1	5

Sample Location	Sample Identification	Date Sampled	Sample Depth (feet)	Analytical Results (milligrams per kilogram) GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
SP32	SP32-08	07/09/14	8	290	--	--	--	--	--	--
	SP32-12		12	<2	--	--	--	--	--	--
SP37	SP37-08	10/09/19	8	<5	--	--	--	--	--	--
MTCA Method A Cleanup Level				30	0.03	7	6	9	0.1	5

Sample Location	Sample Identification	Date Sampled	Sample Depth (feet)	Analytical Results (milligrams per kilogram) GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
SP33	SP33-08	07/09/14	8	2,000	--	--	--	--	--	17
	SP33-12		12	230	--	--	--	--	--	0.40
SP38	SP38-08	10/09/19	8	1,200	--	--	--	--	--	2.9
	SP38-12		12	33	--	--	--	--	--	--
MTCA Method A Cleanup Level				30	0.03	7	6	9	0.1	5

Sample Location	Sample Identification	Date Sampled	Sample Depth (feet)	Analytical Results (milligrams per kilogram) GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene
SP34	SP34-08	07/09/14	8	82	0.41	0.41	0.24	0.65	0.47	<0.05
	SP34-12		12	140	0.40	1.5	4.49	<0.6	<0.05	0.88
SP39	SP39-08	10/09/19	8	660	0.033	<0.05	0.12	<0.2	<0.05	--
	SP39-12		12	<5	<0.02	<0.02	<0.02	<0.06	<0.05	--
MTCA Method A Cleanup Level				30	0.03	7	6	9	0.1	5

LEGEND

- SP31 — PUSH-PROBE BORING (SOUNDEARTH 2014)
- SP37 — PUSH-PROBE BORING (SOUNDEARTH 2019)
- SHALLOW GROUNDWATER FLOW DIRECTION (AUGUST 15, 2017)
- FORMER EXCAVATIONS
- FORMER FEATURES
- ESTIMATED EXTENT OF PCS IN 2014
- ESTIMATED EXTENT OF PCS IN 2019
- ANCESTRAL DRAINAGE
- RAILROAD
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- W — WATER LINE
- SW — STORMWATER LINE
- SS — SANITARY SEWER LINE

12K	12,000-GALLON
8K	8,000-GALLON
6K	6,000-GALLON
AST	ABOVEGROUND STORAGE TANK
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
MTBE	METHYL TERTIARY-BUTYL ETHER
PCS	PETROLEUM-CONTAMINATED SOIL
RED	DENOTES CONCENTRATION EXCEEDS MTCA METHOD A CLEANUP LEVEL FOR SOIL
UST	UNDERGROUND STORAGE TANK
<	CONCENTRATION BELOW LABORATORY REPORTING LIMIT
--	NOT ANALYZED

DRAFT

SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

DATE: 11/19/19
DRAWN BY: JSL
CHECKED BY: RKB
CAD FILE: 0592-001_2019_SOIL-RES

PROJECT NAME: NORTH COLFAX PETROLEUM CONTAMINATION SITE
PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 2
2014 AND 2019
SOIL ANALYTICAL RESULTS

SOUNDEARTHINC.COM

DRAFT

N

STERLING PROPERTY
STERLING SAVINGS BANK (805)
FORMER MOBILE SERVICE STATION
FORMER PUMP ISLAND
RESIDENCE (811)
RESIDENCE (803)
VACANT COMMERCIAL BUILDING (801)
SUBWAY RESTAURANT
FORMER GAS & OIL STATION
PALOUSE RIVER
WEST RAILROAD AVENUE
SIDEWALK
B15/MW15
B14A/MW14
B27/MW27
MW11
B13/MW13
NORTH MAIN STREET (U.S. HIGHWAY 195)
B28/MW28
FORMER GAS & OIL STATION
B26/MW26
FORMER BURIED OIL DRUMS
SEWER MANHOLE
STORM DRAIN
PLANTER
SIDEWALK
B24/MW24
CENEX PROPERTY
MW12
MW05
MW06
MW07
TIME OIL PROPERTY
B22/MW22
CONCRETE
B16/MW16
B23/MW23
GEOENGINEERS 1999 EXCAVATION
8K UST
MW03
FORMER GREASE ROOM
FORMER GREASE PITS
TACO TIME RESTAURANT
B25/MW25
B29/MW29
COLFAX GRANGE PROPERTY
(102 EAST HARRISON STREET)
CMW01
UTILITY POLE
MW04
DISPENSER ISLANDS
COUGAR MART (804)
GRAVEL LOT
RESIDENCE
12K UST
8K UST
8K UST
MW01
FORMER GAS & OIL STATION
MW10
B33/MW32
B17/MW17
CMW02
CMW05
MW02
VAULT
MW08
ALLEY
FORMER HEATING OIL UST
CONCRETE SLAB
DISPENSER ISLAND
UST
UST
UST
CMW04
FORMER 1985 VINTAGE USTs
ASPHALT-PAVED LOT
EAST HARRISON STREET
COLFAX GRANGE SUPPLY COMPANY, INC. BUILDING
CONCRETE
MW09
RESIDENCES
EAST TYLER STREET
PARKING
FORMER ASTs (KEROSENE, SOLVENTS, AND STOVE OIL)
B18/MW18
CLOSED-IN-PLACE UST
CMW03
SUMP
DIESEL PUMP ISLAND
B19/MW19
GASOLINE UST
B20/MW20
B21/MW21
NORTH MORTON STREET
B30/MW30
B31/MW31
MANHOLE
FORMER SHELL OIL COMPANY
RESIDENCE
RV PARK
HARLO APARTMENTS

LEGEND

B13/MW13	MONITORING WELL (SOUNDEARTH 2008-2009)
MW04	MONITORING WELL (GEI 2001-2002)
CMW01	DECOMMISSIONED MONITORING WELL
	RAILROAD
	PROPERTY BOUNDARIES
W	WATER LINE
SS	SANITARY SEWER LINE
SW	STORMWATER LINE
	ANCESTRAL DRAINAGE
	FORMER EXCAVATIONS
	FORMER FEATURES
AST	ABOVE-GROUND STORAGE TANK
UST	UNDERGROUND STORAGE TANK
12K	12,000 - GALLON
8K	8,000 - GALLON
6K	6,000 - GALLON

SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

DATE: 06/25/19
DRAWN BY: CCL
CHECKED BY: CJT
CAD FILE: 0592-001_2019_WELL-DECOM

PROJECT NAME: NORTH COLFAX PETROLEUM CONTAMINATION SITE
PROJECT NUMBER: 0592-001
STREET ADDRESS: NORTH MAIN STREET AND EAST TYLER STREET
CITY, STATE: COLFAX, WASHINGTON

REGION:

0 30 60 120
APPROXIMATE SCALE IN FEET

FIGURE 3
DECOMMISSIONED MONITORING WELLS

12/3/2019
P:\0592 NORTH COLFAX GROUP\0592-001 N. COLFAX PETROLEUM CONTAMINATION SITE\TECHNICAL\CAD\2019\2019 SR\WD\0592-001_2019_WELL-DECOM.DWG
SOUNDEARTHINC.COM

TABLES

DRAFT

Table 1
Summary of Soil Analytical Results for 2019 Confirmational Borings
North Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Sample Location	Sample Property or Right-of-Way	Sample Identification	Date Sampled	Sample Depth[1] (feet)	Sampled By	Analyzed By	Analytical Results (milligrams per kilogram)						
							GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	MTBE[4]	Naphthalene[4]
SP36	Colfax Grange Property	SP36-11	10/09/19	11	SoundEarth	F&B	260	--	--	--	--	--	--
SP37	North Main Street Right-of-Way	SP37-08	10/09/19	8	SoundEarth	F&B	<5	--	--	--	--	--	--
SP38	Time Oil Property	SP38-08	10/09/19	8	SoundEarth	F&B	1,200	--	--	--	--	--	2.9
		SP38-12		12			33	--	--	--	--	--	--
SP39	Time Oil Property	SP39-08	10/09/19	8	SoundEarth	F&B	660	0.033	<0.05	0.12	<0.15	<0.05	--
		SP39-12		12			<5	<0.02	<0.02	<0.02	<0.06	<0.05	--
MTCA Method A Cleanup Level[5]							**30**	**0.03**	**7**	**6**	**9**	**0.1**	**5**

NOTES:

Red denotes concentration exceeds MTCA Method A Cleanup Levels for soil.

[1]Depth in feet below ground surface.

[2]Analyzed by Method NWTPH-Gx.

[3]Analyzed by EPA Method 8021B.

[4]Analyzed by EPA Method 8260C.

[5]MTCA Method A Soil Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

-- = unknown/not analyzed

< = not detected at concentration above the laboratory reporting limit

EPA = US Environmental Protection Agency

F&B = Friedman & Bruya, Inc. of Seattle, Washington.

GRPH = gasoline-range petroleum hydrocarbons

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

SoundEarth = SoundEarth Strategies, Inc.

DRAFT

Table 2
Summary of Soil Analytical Results for 2014 Soil Sample Exceedances
North Colfax Petroleum Contamination Site
North Main Street and East Tyler Street
Colfax, Washington

Sample Location	Sample Property or Right-of-Way	Sample Identification	Date Sampled	Sample Depth[1] (feet)	Sampled By	Analyzed By	Analytical Results (milligrams per kilogram)						
							GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	MTBE[4]	Naphthalene[4]
SP21	Colfax Grange Property	SP21-07	07/08/14	7	SoundEarth	F&B	<2	--	--	--	--	--	--
		SP21-11		11			360[ip]	--	--	--	--	--	--
		SP21-15		15			<2	--	--	--	--	--	--
SP32	North Main Street Right-of-Way	SP32-08	07/09/14	8	SoundEarth	F&B	290[ip]	--	--	--	--	--	--
		SP32-12		12			<2	--	--	--	--	--	--
SP33	Time Oil Property	SP33-08	07/09/14	8	SoundEarth	F&B	2,000	--	--	--	--	--	17
		SP33-12		12			230[ip]	--	--	--	--	--	0.40
SP34	Time Oil Property	SP34-08	07/09/14	8	SoundEarth	F&B	82	0.41	0.41	0.24	0.65	0.47	<0.05
		SP34-12		12			140	0.40	1.5	4.49	<0.6	<0.05	0.88
MTCA Method A Cleanup Level[5]							**30**	**0.03**	**7**	**6**	**9**	**0.1**	**5**

NOTES:

Red denotes concentration exceeds MTCA Method A Cleanup Levels for soil.

[1]Depth in feet below ground surface.

[2]Analyzed by Method NWTPH-Gx.

[3]Analyzed by EPA Method 8021B or 8260B.

[4]Analyzed by EPA Method 8260B.

[5]MTCA Method A Soil Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

Laboratory Note:

[ip]Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation.

-- = unknown/not analyzed

< = not detected at concentration above the laboratory reporting limit

EPA = US Environmental Protection Agency

F&B = Friedman & Bruya, Inc. of Seattle, Washington.

GRPH = gasoline-range petroleum hydrocarbons

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

SoundEarth = SoundEarth Strategies, Inc.

APPENDIX A
BORING LOGS

SoundEarth Strategies

DRAFT

Project:	North Colfax Petroleum Contamination Site
Project Number:	0592-001
Logged by:	JSL
Date Started:	10/9/19
Surface Conditions:	Concrete
Location N/S:	9.5 feet south of SW corner of Colfax Grange Bldg.
Location E/W:	10 feet east of SW corner of Colfax Grange Bldg.
Reviewed by:	RKB
Date Completed:	10/9/19

BORING LOG | SP36 --

Site Address: North Main Street and East Tyler St. Colfax, Washington

Water Depth At Time of Drilling 10 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**	
			10						**0.5-4.0 feet bgs: NO RECOVERY**	
				0.4			ML		**4.0-5.0 feet bgs: Fine sandy SILT, brown, no hydrocarbon odor, moist (80-20-0)**	
5							SM		**5.0-5.5 feet bgs: SAND, gray, no hydrocarbon odor, moist (10-90-0)**	
				3.2			ML		**5.5-10.0 feet bgs: SILT, brown to gray, moderate to strong hydrocarbon odor, moist (90-10-0)**	
			50							
				6,069						
10							ML		**10.0-15.0 feet bgs: Fine to medium sandy SILT, gray, strong to faint hydrocarbon odor, wet (80-20-0)**	
				169.4	SP36-11	X				
			80							
				3.6						
15										

Drilling Co./Driller:	ESN / Brian		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	core barrel plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	direct-push	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	15	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Boring terminated at 15 feet bgs. Borehole backfilled with bentonite and sealed with concrete.

SoundEarth Strategies

DRAFT

Project:	North Colfax Petroleum Contamination Site
Project Number:	0592-001
Logged by:	JSL
Date Started:	10/9/19
Surface Conditions:	Grass
Location N/S:	14 feet south of MW06
Location E/W:	13 feet west of MW06
Reviewed by:	RKB
Date Completed:	10/9/19

BORING LOG | SP37 --

Site Address: North Main Street and East Tyler St. Colfax, Washington

Water Depth At Time of Drilling 10.5 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							SP		**0.0-0.1 Grass lawn**	
									0.1-2.0 feet bgs: Fine to medium SAND, tan, no hydrocarbon odor, moist, numerous rootlets (10-80-10)	
			60	0.0			SM		**2.0-5.0 feet bgs: Silty, gravelly, fine to medium SAND, black to brown, no hydrocarbon odor, moist, numerous organics, brick, glass and burnt debris (25-55-20)**	
5				0.0						
			40	0.8			ML		**5.0-10.0 feet bgs: SILT with fine sand, light brown to dark brown, no hydrocarbon odor, moist (85-15-0)**	
				0.2						
10					SP37-08	X	GM		**10.0-15.0 feet bgs: Fine angular GRAVEL, gray, no hydrocarbon odor, wet (10-10-80)**	▽
			60	3.4						
15				0.0						

Drilling Co./Driller:	ESN / Brian		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	core barrel plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	direct-push	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	15	feet bgs	**Surface Seal:**	Bentonite	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Boring terminated at 15 feet bgs. Borehole backfilled with bentonite.

SoundEarth Strategies

DRAFT

Project:	North Colfax Petroleum Contamination Site
Project Number:	0592-001
Logged by:	JSL
Date Started:	10/9/19
Surface Conditions:	Concrete
Location N/S:	16 feet south of MW06
Location E/W:	3 feet east of MW06
Reviewed by:	RKB
Date Completed:	10/9/19

BORING LOG | SP38 --

Site Address: North Main Street and East Tyler St. Colfax, Washington

Water Depth At Time of Drilling 10 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									**0.0-0.75 feet bgs: 8 inches of concrete**	
			0				ML		**0.75-5.0 feet bgs: NO RECOVERY** **Borehole hand cleared to 2.5 feet bgs.** **Soil observed to be SILT with sand and gravel, gray, moist.**	
5			50	613.8 9,079	SP38-08	X	ML		**5.0-10.0 feet bgs: Fine sandy SILT, black, strong hydrocarbon odor, moist, occasional organic material (80-20-0)**	
10				23.7			ML		**10.0-12.0 feet bgs: Fine sandy SILT, dark gray, moderate hydrocarbon odor, wet (80-15-5)**	
			70	2.5	SP38-12	X	GM		**12.0-15.0 feet bgs: Angular GRAVEL with silt and sand, brown, faint hydrocarbon odor, wet (10-20-70)**	
15				1.4						

Drilling Co./Driller:	ESN / Brian		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	core barrel plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	direct-push	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	15	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Boring terminated at 15 feet bgs. Borehole backfilled with bentonite and sealed with concrete.

SoundEarth Strategies

DRAFT

Project:	North Colfax Petroleum Contamination Site
Project Number:	0592-001
Logged by:	JSL
Date Started:	10/9/19
Surface Conditions:	Concrete
Location N/S:	7.5 feet north of MW06
Location E/W:	9 feet east of MW06
Reviewed by:	RKB
Date Completed:	10/9/19

BORING LOG | SP39 --

Site Address: North Main Street and East Tyler St. Colfax, 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									**0.0-0.75 feet bgs: 8 inches of concrete**	
									Borehole hand cleared to 2.5 feet bgs.	
			30				ML		**2.5-5.0 feet bgs: SILT with fine sand, gray to brown, no hydrocarbon odor, moist (70-20-10)**	
				0.0						
5							ML		**5.0-10.0 feet bgs: SILT with fine sand, dark brown to gray, strong hydrocarbon odor, moist to wet (80-20-0)**	
				353.6						
			70							
				275.3	SP39-08	X				
				251.6						
10							ML		**10.0-11.0 feet bgs: Fine sandy SILT, gray, strong hydrocarbon odor, wet (70-30-0)**	
							GM		**11.0-15.0 feet bgs: Angular GRAVEL with silt and sand, brown, moderate to faint hydrocarbon odor, wet (20-20-60)**	
			50	25.9	SP39-12	X				
15				0.7						

Drilling Co./Driller:	ESN / Brian		**Well/Auger Diameter:**	--	inches
Drilling Equipment:	Truck-mounted push probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	core barrel plastic sleeve		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	direct-push	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	15	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Boring terminated at 15 feet bgs. Borehole backfilled with bentonite and sealed with concrete.

APPENDIX 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.
Eric Young, B.S.

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

October 18, 2019

Jonathan Loeffler, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

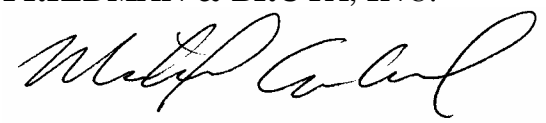
Dear Mr Loeffler:

Included are the results from the testing of material submitted on October 10, 2019 from the SOU_0592-001-01_ 20191010, F&BI 910225 project. There are 9 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
c: Ryan Bixby
SOU1018R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 10, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0592-001-01_ 20191010, F&BI 910225 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
910225 -01	SP37-08
910225 -02	SP38-08
910225 -03	SP38-12
910225 -04	SP39-08
910225 -05	SP39-12
910225 -06	SP36-11

All quality control requirements were acceptable.

Date of Report: 10/18/19
Date Received: 10/10/19
Project: SOU_0592-001-01_ 20191010, F&BI 910225
Date Extracted: 10/11/19
Date Analyzed: 10/11/19

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
SP37-08 910225-01	<5	85
SP38-08 910225-02 1/10	1,200	123
SP38-12 910225-03	33	98
SP39-08 910225-04 1/10	660	101
SP36-11 910225-06 1/5	260	103
Method Blank 09-2429 MB	<5	88

Date of Report: 10/18/19
Date Received: 10/10/19
Project: SOU_0592-001-01_ 20191010, F&BI 910225
Date Extracted: 10/11/19
Date Analyzed: 10/11/19

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 50-132)
SP39-12 910225-05	<0.02	<0.02	<0.02	<0.06	<5	82
Method Blank 09-2429 MB	<0.02	<0.02	<0.02	<0.06	<5	80

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SP38-08	Client:	SoundEarth Strategies
Date Received:	10/10/19	Project:	SOU_0592-001-01_ 20191010
Date Extracted:	10/14/19	Lab ID:	910225-02
Date Analyzed:	10/14/19	Data File:	101438.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	93	107
Toluene-d8	101	87	110
4-Bromofluorobenzene	98	85	112

Compounds:	Concentration mg/kg (ppm)
Naphthalene	2.9

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SP39-08	Client:	SoundEarth Strategies
Date Received:	10/10/19	Project:	SOU_0592-001-01_ 20191010
Date Extracted:	10/14/19	Lab ID:	910225-04
Date Analyzed:	10/14/19	Data File:	101439.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	93	107
Toluene-d8	100	87	110
4-Bromofluorobenzene	97	85	112

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
Benzene	0.033
Toluene	<0.05
Ethylbenzene	0.12
m,p-Xylene	<0.1
o-Xylene	<0.05

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0592-001-01_ 20191010
Date Extracted:	10/14/19	Lab ID:	09-2462 mb
Date Analyzed:	10/14/19	Data File:	101414.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	93	107
Toluene-d8	93	87	110
4-Bromofluorobenzene	90	85	112

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Date of Report: 10/18/19
Date Received: 10/10/19
Project: SOU_0592-001-01_ 20191010, F&BI 910225

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: 910221-01 (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	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	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	86	66-121
Toluene	mg/kg (ppm)	0.5	91	72-128
Ethylbenzene	mg/kg (ppm)	0.5	96	69-132
Xylenes	mg/kg (ppm)	1.5	92	69-131
Gasoline	mg/kg (ppm)	20	95	61-153

Date of Report: 10/18/19
Date Received: 10/10/19
Project: SOU_0592-001-01_ 20191010, F&BI 910225

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

Laboratory Code: 910170-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	85	87	17-134	2
Benzene	mg/kg (ppm)	2.5	<0.03	76	77	26-114	1
Toluene	mg/kg (ppm)	2.5	<0.05	78	80	34-112	3
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	80	83	34-115	4
m,p-Xylene	mg/kg (ppm)	5	<0.1	81	86	25-125	6
o-Xylene	mg/kg (ppm)	2.5	<0.05	84	85	27-126	1
Naphthalene	mg/kg (ppm)	2.5	<0.05	88	93	24-139	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	107	72-122
Benzene	mg/kg (ppm)	2.5	93	72-106
Toluene	mg/kg (ppm)	2.5	93	74-111
Ethylbenzene	mg/kg (ppm)	2.5	93	75-112
m,p-Xylene	mg/kg (ppm)	5	97	77-115
o-Xylene	mg/kg (ppm)	2.5	100	76-115
Naphthalene	mg/kg (ppm)	2.5	112	73-122

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.

910225

SAMPLE CHAIN OF CUSTODY

ME 10-10-19

Page # 1 of 1 (03/153)

Send Report to Jonathan Loeffler, Ryan Bixby

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. | PO #

NCPC Site / 0592-001-01

REMARKS

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: GRPH by NWTPH-Gx	BTEX and MTBE by EPA 8021B	Napthalene by EPA 8260C	BTEX by EPA 8021B	MTBE			Notes
SP37-08	SP37	01	A-E	10/9/19	0845	SOIL	5	X							(X) - DO JL
SP38-08	SP38	02			1030	SOIL	5	X		X					10/18/19 mC
SP38-12	SP38	03			1040	SOIL	5	X							
SP39-08	SP39	04			1120	SOIL	5	X	X						
SP39-12	SP39	05			1130	SOIL	5	X			X	(X)			
SP36-11	SP36	06			1230	SOIL	5	X							

10/9/19

Samples received at 4 °C

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

FORMS\COC\ OC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JONATHAN LOEFFLER	SoundEarth Strategies, Inc.	10/10/19	1600
Received by:	[illegible] DICKEY	SES	10/10/19	1600
Relinquished by:	[illegible] DICKEY	SES	10/10/19	1620
Received by:	DOUG	FBI	10-10-19	16-20

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

October 28, 2019

Jonathan Loeffler, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Loeffler:

Included are the additional results from the testing of material submitted on October 10, 2019 from the SOU_0592-001-01_ 20191010, F&BI 910225 project. There are 5 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
c: Ryan Bixby
SOU1028R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 10, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0592-001-01_ 20191010, F&BI 910225 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
910225 -01	SP37-08
910225 -02	SP38-08
910225 -03	SP38-12
910225 -04	SP39-08
910225 -05	SP39-12
910225 -06	SP36-11

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	SP39-12	Client:	SoundEarth Strategies
Date Received:	10/10/19	Project:	SOU_0592-001-01_ 20191010
Date Extracted:	10/22/19	Lab ID:	910225-05
Date Analyzed:	10/23/19	Data File:	102275.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	89	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0592-001-01_ 20191010
Date Extracted:	10/22/19	Lab ID:	09-2560 mb
Date Analyzed:	10/22/19	Data File:	102214.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	88	50	150

Compounds:	Concentration mg/kg (ppm)
Methyl t-butyl ether (MTBE)	<0.05

Date of Report: 10/28/19
Date Received: 10/10/19
Project: SOU_0592-001-01_ 20191010, F&BI 910225

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

Laboratory Code: 910386-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	106	91	17-134	15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	107	72-122

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.

910225

SAMPLE CHAIN OF CUSTODY

ME 10-10-19

Page # 1 of 1 (03/153)

Send Report to Jonathan Loeffler, Ryan Bixby

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. | PO #

NCPC Site / 0592-001-01

REMARKS

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: GRPH by NWTPH-Gx	BTEX and MTBE by EPA 8021B	Napthalene by EPA 8260C	BTEX by EPA 8021B	MTBE			Notes
SP37-08	SP37	01	A-E	10/9/19	0845	SOIL	5	X							(X) - DO JL
SP38-08	SP38	02			1030	SOIL	5	X		X					10/18/19 mC
SP38-12	SP38	03			1040	SOIL	5	X							
SP39-08	SP39	04			1120	SOIL	5	X	X						
SP39-12	SP39	05			1130	SOIL	5	X			X	(X)			
SP36-11	SP36	06			1230	SOIL	5	X							

10/9/19

Samples received at 4 °C

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

FORMS\COC\ OC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JONATHAN LOEFFLER	SoundEarth Strategies, Inc.	10/10/19	1600
Received by:	[illegible] DICKEY	SES	10/10/19	1600
Relinquished by:	[illegible] DICKEY	SES	10/10/19	1620
Received by:	DOUG	FBI	10-10-19	16-20