

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

March 28, 2016

Mr. Eric Bentler GRE Bothell LLC 2801 Alaskan Way, Suite 310 Seattle, Washington 98121

SUBJECT: UNDERGROUND STORAGE TANK SITE ASSESSMENT AND REMEDIAL EXCAVATION REPORT Bothell Mercantile Property 10201 Main Street Bothell, Washington Project Number: 0432-057-05

Dear Mr. Bentler,

SoundEarth Strategies, Inc. (SoundEarth) has prepared this report to document the results of underground storage tank (UST) decommissioning, site assessment, and remedial excavation activities completed at the Bothell Mercantile Property, located at 10201 Main Street in Bothell, Washington (the Property), as shown on Figure 1 and Photograph 1.

#### PROPERTY DESCRIPTION AND BACKGROUND

The Property consists of a single rectangular-shaped tax parcel (King County Parcel No. 096700-0070) that encompasses a total of 23,040 square feet (0.53 acres) of land. The Property was originally developed with a single-story, 10,620-square-foot commercial building constructed in 1908, with an asphalt-paved parking lot. The commercial building, excluding the exterior walls, was demolished in 2015 during Property redeveloped activities.

SoundEarth reviewed a Phase I Environmental Site Assessment (ESA) report prepared for the Property by PES Environmental, Inc. (PES) dated June 5, 2014. The following recognized environmental condition (REC) was identified in the PES Phase I ESA report:

The historical use and storage of gasoline on the Property. A 550-gallon tank was identified on a Real Property Record Card, created from the Washington State Archives, as a "Wayne Handgas pump & 550 Ga. Tank." In addition, a 1912 Sanborn Fire Insurance Map notes a gasoline engine on the Property. No records or evidence regarding the removal or presence of the tank was identified by PES; therefore, the tank is considered a REC.

Review of a geotechnical report completed on the adjacent property to the south by Golder Associates Inc. indicated groundwater was not encountered to depths of up to 26.5 feet below ground surface (bgs). As this property is several feet lower elevation wise than the Property, we anticipate groundwater depths in excess of 30 feet below the Property. SoundEarth conducted a Phase II subsurface investigation at the Property in September and October 2014 to fulfill the due diligence requirements of the Property purchaser and to provide Goodman Real Estate with a potential release of chemicals of concern associated with the RECs identified in the PES and subsequent historical review of data completed by SoundEarth.

Four soil borings (B01 through B04) were advanced on the Property, and borings B05 through B07 were advanced in the 102<sup>nd</sup> Avenue Northeast right-of-way, immediately west of the Property. The seven borings were drilled to depths ranging from 20 to 24 feet bgs. Subsurface conditions generally disclosed asphalt pavement and gravel base course underlain by moist, loose grading to dense sand with minor silt and variable gravel that extended to the full depth explored. Measurable groundwater and/or wet soil conditions were not observed at the time of drilling.

Selected soil samples collected from each of the borings did not exhibit detectable concentrations of gasoline-range petroleum hydrocarbons (GRPH), diesel-range petroleum hydrocarbons (DRPH), oil-range petroleum hydrocarbons (ORPH); or benzene, toluene, ethylbenzene, and total xylenes (BTEX). Selected samples collected from borings B01, B04, B05 and B07 were analyzed for chlorinated volatile organic compounds (CVOCs), the results of which indicated that there were no detections of CVOCs in any of the samples analyzed.

The results of this investigation did not indicate that a significant release of petroleum hydrocarbons constituents and volatile organic compounds has occurred on the property, and no further inquiry was warranted.

#### UNDERGROUND STORAGE TANK DISCOVERY

On February 1, 2016, Venture General Contracting, LLC discovered a UST in the southwest portion of the Property during redevelopment activities (Figure 2 and Photograph 2). The UST was located adjacent to the former historic gasoline engine that was identified as a REC. A SoundEarth UST Site Assessor (Attachment A) arrived at the Property on February 2, 2016 to document conditions and to collect a sample of the tank contents for chemical analysis. The single-steel walled UST was partially exposed, the top of which was situated approximately 2.5 feet below the existing grade, aligned in an east-west direction, and measured approximately 8 feet in length by approximately 42 inches in diameter. Based on the tank measurements SoundEarth estimated the tank to have a 550 gallon capacity.

No apparent product or vent lines were observed attached to or in the vicinity of the UST, nor were there any apparent petroleum stains adjacent to or surrounding the tank.

Approximately 13-inches of water and product were observed within the tank. A product sample (UST01-Product) was collected and transported to Friedman & Bruya, Inc. for chemical analysis for gasoline, diesel, and heavy oil by Northwest Total Petroleum Hydrocarbon Method hydrocarbon identification. The product/liquid sample contained a detectible concentration of diesel-range petroleum hydrocarbons. Sample UST01-Product was also analyzed for Flashpoint by the U.S. Environmental Protection Agency (EPA) Method 1010/ASTM D93 to determine the flammability of the petroleum for decommissioning purposes. The flashpoint of the tank contents was determined to be 147-degrees Fahrenheit.

#### UNDERGROUND STORAGE TANK REMOVAL AND SITE ASSESSMENT

Based on the historical use of gasoline on the Property, including the UST size matching the documented 550 gallon tank that was identified during the Phase I review, SoundEarth determined that the tank may have been used to store gasoline and other fuel oils for the consumptive use on the Property. As such, SoundEarth submitted to the Washington State Department of Ecology (Ecology) a 30-Day Notice for USTs with an intention to decommission the tank and a 30 Day Notice Waiver Request. Ecology reporting records are included in Attachment B. S3 Environmental Construction, Inc. (S3), a licensed UST Decommissioning contractor, concurrently applied for and was granted a permit to remove the tank from the City of Bothell Fire and EMS (permit number FCON2016-12139).

UST decommissioning field activities were performed on February 9, 2016. The UST contents were removed by Marine Vacuum Services, Inc. (MarVac) of Seattle, Washington after which MarVac triple-rinsed the tank. S3 proceeded to inert the tank with compressed carbon dioxide after the triple-rinse (Photographs 3 and 4). After receiving approval from the City of Bothell Fire and EMS inspector to remove the tank, the UST was removed by Elk Heights Excavation, LLC (Elk Heights). The UST was inspected by SoundEarth after removal and was found to contain one ½-inch diameter hole on the bottom of the tank (Photograph 5) and approximately 4 smaller sized holes on the bottom of the west end of the tank (Photograph 6). Except for the east end of the tank that was ruptured during removal, the endcaps and top of the tank were in good condition and were absent of visible holes or failed seams (Photograph 7). Upon completing the inspection the UST was loaded onto a flatbed trailer for off-Property disposal. Copies of the UST decommission documents and permit are provided in Attachment C.

Soil conditions immediately below and surrounding the UST location was absent of visual and olfactory indications of petroleum contamination and no discernable interface between the fill and native soil was observed. Based on the lack of discernable interface between native and backfill soil, Elk Heights, under the direction of SoundEarth, proceeded to remove approximately one foot of soil from beneath the tank to further assess soil conditions and collect samples. The removal of soil from below the tank was performed to conform to recommendations made in Ecology's *Guidance for Site Checks and Site Assessments for Underground Storage Tanks, Section 5.2.3 - Required Number and Locations of Soil Samples*, (Publication # 90-52, Revised April 2003). Soils generally consisted of damp, brown, medium to coarse sand and gravel with traces of silt.

Soil conditions were assessed for petroleum contamination and discrete soil samples were collected from the excavation sidewalls, below the former tank location, and from the stockpiled soil. The UST excavation measured approximately 7 feet north to south, 9 feet east to west, by approximately 7 feet bgs (Photograph 8). Groundwater was not encountered during excavation activities.

Soil samples were analyzed for GRPH, BTEX, DRPH and ORPH. None of the soil samples contained detectible concentrations of petroleum except for sample UST01-B02-07, which was collected from below the western end of the tank. Sample UST01-B02-07 contained an ethylbenzene concentration of 0.23 milligrams per kilogram (mg/kg), a GRPH concentration of 510 mg/kg, and a DRPH concentration of 1,800 mg/kg. The GRPH concentration exceeded the Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Unrestricted Land Uses (the CUL), whereas the ethylbenzene and DRPH concentrations were less than their respective MTCA CULs. Sample UST01-B02-07 was subsequently

analyzed for cadmium, chromium, and lead by EPA Method 200.8. Analytical results revealed detectible concentrations of cadmium, chromium, and lead, of which cadmium exceeded the MTCA Method A CUL.

A summary of the soil analytical results are presented in Table 1 and illustrated on Figure 3. Copies of the UST site assessment laboratory analytical reports are included in Attachment D.

#### PETROLEUM-CONTAMINATED SOIL EXCAVATION

SoundEarth returned to the Property on February 10, 2016 to observe the excavation of petroleum contaminated soil (PCS) that was identified below the former UST. Clean overburden soil immediately surrounding the excavation cavity was removed to safely gain access to the PCS. Approximately one foot of PCS in the vicinity of sample UST01-B02-07 was over excavated down to approximately 8 feet bgs (Photograph 9)... PCS was not observed at 8 feet bgs. To verify that the soil conditions at the extent of the excavation comply with the MTCA CULs, confirmation soil sample UST01-B03-08 was collected below sample UST01-B02-07. Soil sample UST01-B03-08 was analyzed for GRPH, BTEX, DRPH, ORPH and cadmium. The sample did not contain detections of chemicals above the laboratory reporting limits. A copy of the analytical report is included in Attachment D.

The remedial excavation measured approximately 5 feet north to south by approximately 8 feet east to west. The total depth of the excavation relative to the former grade prior to redevelopment activities measured approximately 8 feet bgs. Excavated PCS was temporarily staged on plastic immediately south of the remedial excavation pending off-Property transport and disposal (Photograph 10). No groundwater was encountered during excavation activities.

#### SOIL DISPOSAL

PCS was transported to the Regional Disposal Company Transfer Station located at 3<sup>rd</sup> and Lander in Seattle, Washington, prior to transport to the Roosevelt Regional Landfill in Roosevelt, Washington, for landfill disposal. A total of 7.41 tons of PCS was removed from the Property on February 16, 2016. A copy of the soil disposal ticket is included in Attachment E.

#### CONCLUSION

Based upon SoundEarth's field observations and the results of the confirmation sampling, remaining soil in the vicinity of the former UST is compliant with MTCA Method A cleanup levels. Therefore, no further remediation or characterization work appears warranted.

#### LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express 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.

#### CLOSING

SoundEarth appreciates the opportunity to work with you on this project. Please contact the undersigned at 206-306-1900 if you have any questions or require additional information.

Respectfully,

SoundEarth Strategies, Inc.

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Corey League Associate Scientist

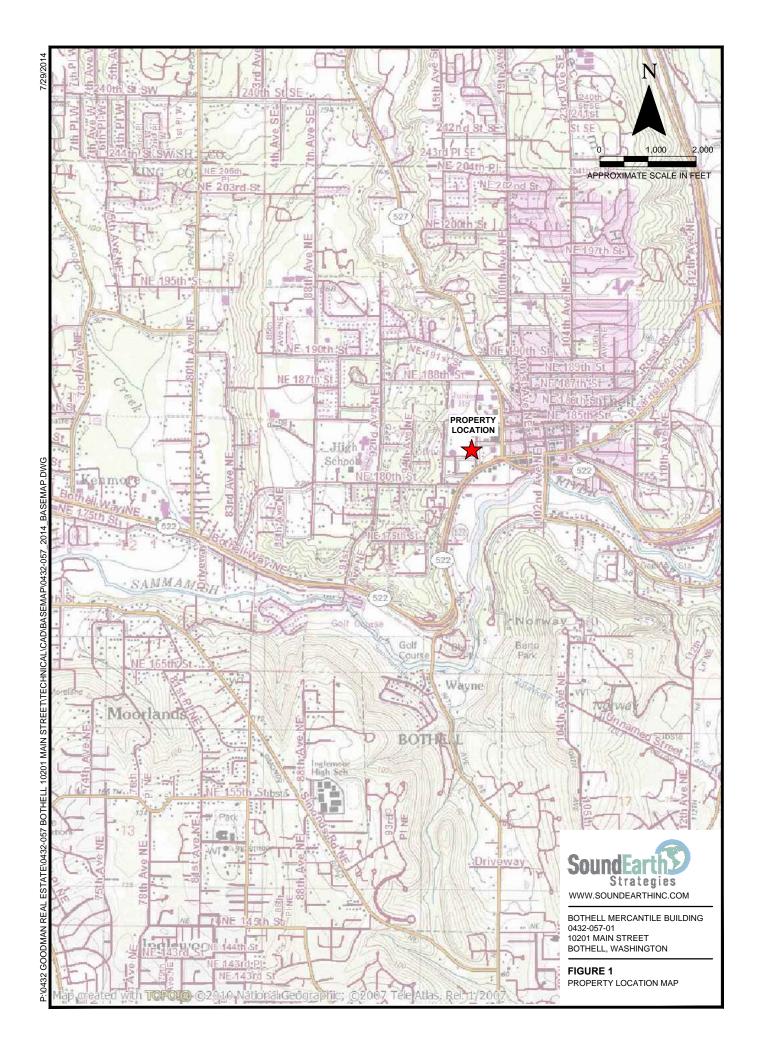
Chris Carter Principal Scientist

Attachments:	Figure 1, Project Location Map				
	Figure 2, Exploration Location Map				
	Figure 3, UST and Soil Sample Locations				
	Table 1, Soil Analytical Results for TPH, BTEX, and Metals				
	Property Photographs				
	A, UST Site Assessor Certification				
	B, Washington State Department of Ecology Documents				
	UST 30-Day Notice				
	Response to 30 Day Notice Waiver Request				
	UST Site Assessment Checklist				
	Permanent Closure Notice				
	C, UST Decommissioning Documents				
	City of Bothell Fire and EMS Permit Number: FCON2016-12139				
	Triple Rinse Certificate				
	Certificate of Destruction				
	D, Laboratory Analytical Reports				
	Friedman & Bruya, Inc. #602027				
	Friedman & Bruya, Inc. #602133				
	Friedman & Bruya, Inc. #602167				
	E, Contaminated Soil Disposal Ticket				

cc: Washington State Department of Ecology, Underground Storage Tank Section

HCL/CMC:hsb

**FIGURES** 







PROPERTY BOUNDARY

N

APPROXIMATE SCALE IN FEET

PROPERTY BOUNDARY

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SOIL BORING LOCATIONS (SEPTEMBER 2014)

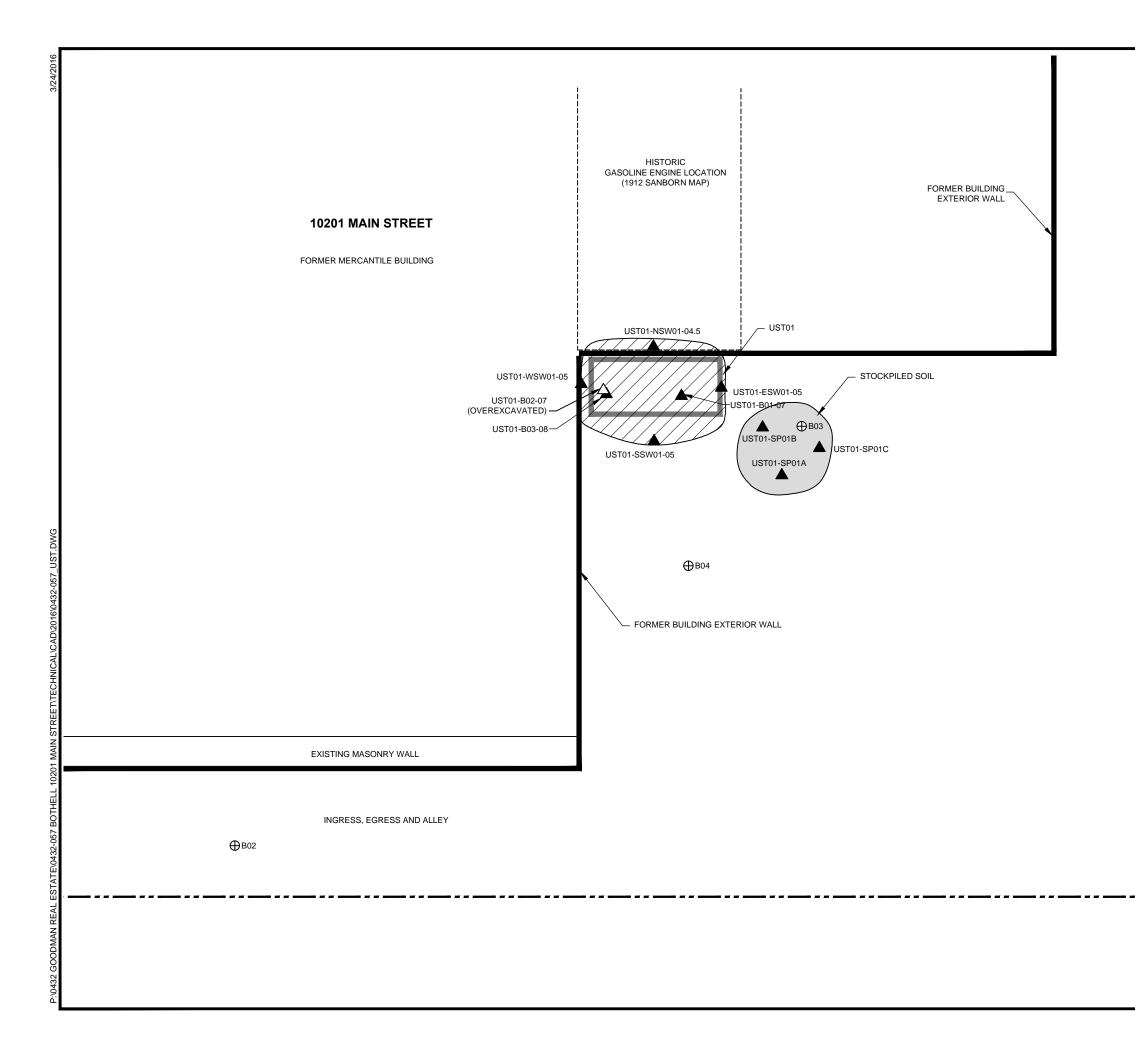
UNDERGROUND STORAGE TANK

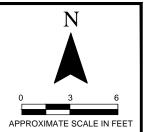
UST



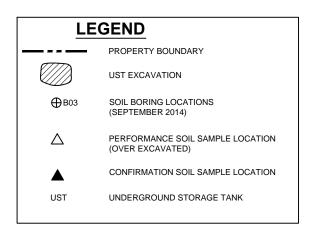
BOTHELL MERCANTILE PROPERTY 10201 MAIN STREET BOTHELL, WASHINGTON SOUNDEARTH PROJECT #0432-057-05

FIGURE 2 EXPLORATION LOCATION MAP





FORMER PARKING LOT





BOTHELL MERCANTILE PROPERTY 10201 MAIN STREET BOTHELL, WASHINGTON SOUNDEARTH PROJECT #0432-057-05

FIGURE 3 UST AND SOIL SAMPLE LOCATIONS TABLE



#### Table 1 Soil Analytical Results for TPH, BTEX, and Metals Bothell Mercantile Property 10201 Main Street Bothell, Washington

	Analytical Results (milligrams per kilogram)												
Sample ID	Sample Location	Sample Date	Sample Depth (feet)	<b>GRPH</b> <sup>(1)</sup>	DRPH <sup>(2)</sup>	ORPH <sup>(2)</sup>	Benzene <sup>(3)</sup>	Toluene <sup>(3)</sup>	Ethylbenzene <sup>(3)</sup>	Total Xylenes <sup>(3)</sup>	Cadmium <sup>(4)</sup>	Chromium <sup>(4)</sup>	Lead <sup>(4)</sup>
UST01-B01-07	Below UST, east end	2/9/2016	7	<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
UST01-B02-07 <sup>(5)</sup>	Below UST, west end	2/9/2016	7	510	1,800	<250	<0.02 j	<0.1	0.23	<0.3	3.37	7.98	3.46
UST01-B03-08	Below UST01-B02-07	2/10/2016	8	<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<1		
UST01-NSW01-04.5	North sidewall	2/9/2016	4.5	<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
UST01-ESW01-05	East sidewall	2/9/2016	5	<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
UST01-SSW01-05	South sidewall	2/9/2016	5	<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
UST01-WSW01-05	West sidewall	2/9/2016	5	<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
UST01-SP01A	Stockpiled soil, south	2/9/2016		<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
UST01-SP01B	Stockpiled soil, northwest	2/9/2016		<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
UST01-SP01C	Stockpiled soil, east	2/9/2016		<2	<50	<250	<0.02	<0.02	<0.02	<0.06			
MTCA Method A Clean	up Level <sup>(6)</sup>			100	2,000	2,000	0.03	7	6	9	2	19	250

NOTES:

Samples analyzed by Friedman & Bruya, Inc. in Seattle, Washington.

Red denotes concentration exceeding the MTCA Method A Cleanup Level in Soil.

<sup>(1)</sup>Analyzed by NWTPH-Gx.

<sup>(2)</sup>Analyzed by NWTPH-Dx.

<sup>(3)</sup>Analyzed by EPA Method 8021B.

<sup>(4)</sup>Analyzed by EPA Method 200.8.

<sup>(5)</sup>Sample location subsequently over excavated.

<sup>(6)</sup>MTCA Method A Soil Cleanup Level, Table 740--1 of Section 900 of Chapter 173--340 of the Washington Administrative Code, revised November 2007.

Laboratory Note:

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

-- = not analyzed

< = less than

bgs = below ground surface

BTEX = benzene, toluene, ethylbenzene, and total xylenes

DRPH = diesel-range petroleum hydrocarbons

EPA = U.S. 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 TPH = total petroleum hydrocarbons

UST = underground storage tank



Bothell Mercantile Property 10201 Main Street Bothell, Washington 
 Project No.:
 0432-057-05

 Date:
 March 24, 2016

 Drawn By:
 HCL

 Chk By:
 CMC



Photograph 1. Overview of the Property during redevelopment activities, looking southwest.



Photograph 2. Looking northwest at the UST prior to removal.



Bothell Mercantile Property 10201 Main Street Bothell, Washington Project No.:04Date:MDrawn By:H0Chk By:Ch

0432-057-05 March 24, 2016 HCL CMC



Photograph 3. MarVac triple rinsing the tank after removing the contents during decommissioning activities.



Photograph 4. S3 inerting the UST with carbon dioxide prior to removal.



**Bothell Mercantile Property** 10201 Main Street Bothell, Washington

Project No.: Date: Drawn By: Chk By:

0432-057-05 March 24, 2016 HCL CMC



Photograph 5. Close-up view of the 1/2-inch diameter hole observed on the bottom midsection of the UST.



Photograph 6. View of several small holes highlighted with white paint located on the west end of the UST.



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Photograph 7. Looking west at the UST during inspection immediately after its removal.



Photograph 8. View of the UST cavity after the conclusion of site assessment activities, looking northwest.



Bothell Mercantile Property 10201 Main Street Bothell, Washington 
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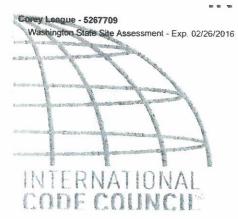


Photograph 9. Removing contaminated soil from below the former UST location, looking west.



Photograph 10. Looking north at the excavation at the conclusion of removal activities with the stockpiled PCS in the foreground.

## ATTACHMENT A UST SITE ASSESSOR CERTIFICATION







International Code Council 500 New Jersey Avenue, NW Washington, DC 20001

The individual named hereon is CERTIFIED in the categories shown, having been so certified pursuant to successful completion of the prescribed written examinations.

Not valid unless signed by certificate holder. ICC Certification attests to competent knowledge of codes and standards.

# **EXTERIOR OF CARD**

ICC

ICC CERTIFICATIONS HELD ARE FOUND ON THE REVERSE SIDE OF THIS CARD

## ATTACHMENT B WASHINGTON STATE DEPARTMENT OF ECOLOGY DOCUMENTS

**UST 30-Day Notice** 

DEPARTMENT OF ECOLOGY State of Washington	This form	FOR UNI n provides Ecol projects, as i	ogy 30-day required by	id Stor s' advan Chapter	AGE TANKS	or the follo AC.	owing	Coun	D #: <u>///</u> ty: <u>//</u>	20
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Response to 30 Day Notice Waiver Request

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	ECOLOGY	1
	State of Washington	

Response to 30 Day Notice Waiver Request \*\*To be completed by Person Submitting Request\*\*

UST ID # (if known): Full Site Address: 10201 Main Street, Bothell, WA 98011 Owner/Operator: GRE Bothell LLC / Eric Bentler Contact phone #: (206) 972-8145 Waiver Requested for 30 Day Notice to: DECOMMISSION (Circle one or both) INSTALL Person and Company Submitting Request: Corey League / Sound Earth Strategies, Inc. Contact phone #: (253) 722-9693 Reason for Submitting Request: Unregistered abandoned 4ST was encountered in course of earthwork construction. UST needs to be removed promptly to minimize construction delays. Date Request Submitted: 02/03/16 Date and time of Construction: 02/08/16 @ 0800 Name, Contact Phone Number, and ICC Certification Number for all that apply: **INSTALLER:** NIA DECOMMISSIONER: Brad Re: 11, (206) 779-0050, 8289423 SITE ASSESSOR: Correy Langue, (253) 722-9693, 5267709 **Completed 30 Day Notice Attached to Waiver Request Form?** (Circle one) YES NO Department of Ecology Response to Request (to be completed by UST Inspector):

WAIVER DENIED WAVIER GRANTED Signature and Date: 0204011 Inspector:

\*\*DECOMMISSIONER(S) SHALL HAVE A COPY OF 30 DAY NOTICE AND A COPY OF THE WAIVER REQUEST FORM ON SITE DURING ALL DECOMMISSIOING RELATED ACTIONS \*\*\* UST Site Assessment Checklist

UST ID #: \_\_\_\_\_



# SITE CHECK/SITE ASSESSMENT CHECKLIST County: \_\_\_\_\_

This checklist certifies that site check or site assessment activities were performed in accordance with Chapter 173-360 WAC. Instructions are found on the last page.

I. UST FACILITY	II. OWNER/OPERATOR INFORMATION
Facility Compliance Tag #: None	Owner/Operator Name: Eric Bentler
UST ID #: None	Business Name: GRE Bothell LLC
Site Name: Bothell Mercantile	Address: 2801 Alaskan Way, Suite 310
Site Address: 10201 Main Street	City: Seattle State: MA Zip: 98121
City: Bathell	Phone: (206) 972 - 8145
Phone: (206) 972 - 8145	Email: eben Heregoodmanse, com
	SITE ASSESSOR
Service Provider Name: Corey League	Company Name: Sound Earth Strategies, Inc.
Cell Phone: 722-9693 Email: cleague Soundearth;	Address: 28/1 Fatrice Ave. E. Suite 2000
	City: Sea H/e State: WA Zip:98102
IV. TANK I	NFORMATION
TANK ID TANK CAPACITY	LAST SUBSTANCE STORED DATE SITE CHECK OR ASSESSMENT CONDUCTED
USTOI 550 Gal.	Unknown 02/09/16
V. REASON FOR CONDUCTING SITE	CHECK/SITE ASSESSMENT (check one)
Release investigation following permanent UST system	n closure (i.e. tank removal or closure-in-place).
□ Release investigation following a failed tank and/or lin	e tightness test.
Release investigation following discovery of contamina	ated soil and/or groundwater.
Release investigation directed by Ecology to determine	e if the UST system is the source of offsite impacts.
UST system is undergoing a "change-in-service", which gasoline) to storing a non-regulated substance (e.g. wa	
Directed by Ecology for UST system permanently close	d or abandoned before 12/22/1988.
Other (describe):	

1150	VI. CHECKLIST	1.40	
	The site assessor must check each of the following items and include it in the report. Sections referenced below can be found in the Ecology publication <i>Guidance for Site Checks and Site Assessments for Underground Storage Tanks</i> .		
	Guidance for Site Checks and Site Assessments for Underground Storage Tanks.	YES	NO
1.	The location of the UST site is shown on a vicinity map.	Ø	
2.	A brief summary of information obtained during the site inspection is provided (Section 3.2)	Ŀ	
3.	A summary of UST system data is provided (Section 3.1)	V	
4.	The soils characteristics at the UST site are described. (Section 5.2)		
5.	Is there any apparent groundwater in the tank excavation?		
6.	A brief description of the surrounding land use is provided. (Section 3.1)		
7.	The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	Ľ	
8.	The following items are provided in one or more sketches:		
	Location and ID number for all field samples collected		
	<ul> <li>If applicable, groundwater samples are distinguished from soil samples</li> </ul>		
	Location of samples collected from stockpiled excavated soil	Ľ	
	Tank and piping locations and limits of excavation pit		
	Adjacent structures and streets	ø	
	Approximate locations of any on-site and nearby utilities		
9.	If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4) $N/A$		
10.	A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method, and detection limit for that method. Any sample exceeding MTCA Method A cleanup standards are highlighted or bolded.	ď	
11.	Any factors that may have compromised the quality of the data or validity of the results are described.		
12.	The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	v	
	VII. REQUIRED SIGNATURES		The second
	Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360-360 through	395.	
	Correy League 2/2 02/2	3/16	
Prin	t or Type Name Signature of Certified Site Assessor Date		

**Permanent Closure Notice** 



### PERMANENT CLOSURE NOTICE FOR UNDERGROUND STORAGE TANKS

UST ID #	
County:	

This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360 WAC. Instructions are found on the back page.

and the second sec	UST FACILITY			it: Owner/Op	erator Informi	ation
Facility Compliance Ta	g #:		Owner/O	perator Name: 4	Eric Bann	Her
UST ID #:		20			Bothell	
Site Name: Bo+	hell Merc	cantile	Address:	2801 Ala	skan Wa,	, Suite 310
Site Address: 10201	Main 5-	tree+	City: S	ea He	State: W,	A Zip:98121
City: Both	e / /		Phone: (2	206) 972-	8145	
Phone: (206) 972	-8145		Email: eb	entlegap	oodmanre	con
		III. CERTIFIED U	ST DECOMMIS		00	
Company Name: S3 E	nvironmental Co	nstruction, Inc.	Service Pro	ovider Name: Br	ad Reilly	
Address: 9214 S. Alas	ka St.		Certificatio	on Type: ICC Us	ST Decommission	ner
City: Tacoma	State:	WA Zip: 98444	Cert. No.:	8289423	Exp. Date: 9/	03/2016
Provider Phone: 206-7	79-0050		Provider E	mail: Brad@s3e	c.com	
Provider Signature:	52		Date: 2/10	)/20016		
			INFORMATION	n sa sanga sa		1.9 1.1
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	removal	CLOSURE METHO	D change-in-service	CLOSURE DATE
USTOI	550 991	Fueloil	D			02/09/16
8						
ale a	en al la companya de	040 0400 0000 0000 0000 000 000 000 000	RED SIGNATOR			
Signature ackn	owledges USI(s) co	mply with UST regu	lation WAC 173	-360-380 Perman	ent Closure Require	ments.
2/23/16		n		Tim	Dickerson	
Date Signature of Tank Owner/Operator or Authorized Print or Type Name Representative						

.

## ATTACHMENT C UST DECOMMISSIONING DOCUMENTS

City of Bothell Fire and EMS Permit Number: FCON2016-12139

	Fire and EMS (425) 806-6250		rmit Number: FCON2016-12139 Type: Fire-Construction
City of B	othell		Work Class: Construction Issue Date: 02/09/2016
Permit Infor	rmation		
Job Address:	18120 102ND AVE NE	Sub Area:	Downtown
Parcel:	0967000070	Project:	
		Expiration Date:	02/08/2017
Description:	Remove 550 gallon underground stora transported of site for destruction and		nped, cleaned, inserted and
Contacts			
Туре	Contact Name	Address	Phone
Contractor	S3 Environmental Construction, Inc.Brad Reilly	9214 S Alaska St Tacoma, WA 98444	
This per	mit shall be posted a	t the jobsite, appro	ved drawings will be

available.

16

2

#### Required Inspections

DW 1. Final - CRR

To schedule an inspection, please call the City of Bothell Inspection line at 425-806-6107.

Requests received prior to 3:00pm will be inspected the following business day. Requests received after 3:00 pm will be scheduled for the second business day. Specific times may be requested.

#### **General Conditions**

1 UNDERGROUND SYSTEMS

Work to be done by an "Underground" licensed contractor. Do not backfill until inspected and approved for cover. All completion reports will be available at the time of the inspection.

A site plan is required. Present it at time of in spection.

1.

Triple Rinse Certificate



## TRIPLE RINSE CERTIFICATE

This document certifies that the tanks located at the following address:

Location:	10201 Main Street, Bothell, WA
Former Contents:	Diesel

Size: 500- gallon diesel

Construction: Steel

Has been triple rinsed in accordance with applicable codes and regulations of the State of Washington. The rinsate has been properly disposed of by Marine Vacuum Service of Seattle, WA. The UST was rinsed under the supervision of an International Code Council (ICC) certified UST Decommissioner.

ICC Certified Decommissioner: Brad Reilly

ICC# 8289423

Signature:

Title: Decommissioner

Date: February 9, 2016

Phone: (206) 779-0050 | Fax: (253) 369-6228 | Brad@s3ec.com

Certificate of Destruction



## **Certificate of Destruction**

This certifies that the following tank:

Location: 10201 Main Street, Bothell, WA

Former Contents: Diesel

Size: 500-gallon

Construction: Steel

Has been transported by S3 Environmental Construction, Inc. to Binford Metals in Kent, WA where the tank has been destroyed by shredding or other mechanical destruction to an unusable state and the tank is not able to be re-used or otherwise returned to service.

UST Decommissioner: Brad Reilly

ICC #: 8289423

Signature:

Date: February 9, 2016

## ATTACHMENT D LABORATORY ANALYTICAL REPORTS

Friedman & Bruya, Inc. #602027

### 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

February 3, 2016

Corey League, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Mr. League:

Included are the results from the testing of material submitted on February 2, 2016 from the SOU\_0432-057\_20160202, F&BI 602027 project. There are 3 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. 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 SOU0203R.DOC

## ENVIRONMENTAL CHEMISTS

## CASE NARRATIVE

This case narrative encompasses samples received on February 2, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU\_0432-057\_ 20160202, F&BI 602027 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
602027 -01	UST01-Product

All quality control requirements were acceptable.

### ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16 Date Received: 02/02/16 Project: SOU\_0432-057\_20160202, F&BI 602027 Date Extracted: 02/02/16 Date Analyzed: 02/02/16

### **RESULTS FROM THE ANALYSIS OF SOIL/PRODUCT SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID Results Reported as Not Detected (ND) or Detected (D)**

### THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

<u>Sample ID</u> Laboratory ID	<u>Gasoline</u>	<u>Diesel</u>	<u>Heavy Oil</u>	Surrogate <u>(% Recovery)</u> (Limit 53-144)
UST01-Product 602027-01 1/100	ND	D	ND	105
Method Blank 06-201 MB	ND	ND	ND	98

ND - Material not detected at or above 2,000 mg/kg gas, 5,000 mg/kg diesel and 25,000 mg/kg heavy oil.

### ENVIRONMENTAL CHEMISTS

## **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.

 ${\bf b}$  - 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.

 ${\rm d}$  - 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 compound 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. Compounds in the sample matrix interfered with the quantitation of the analyte.

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.

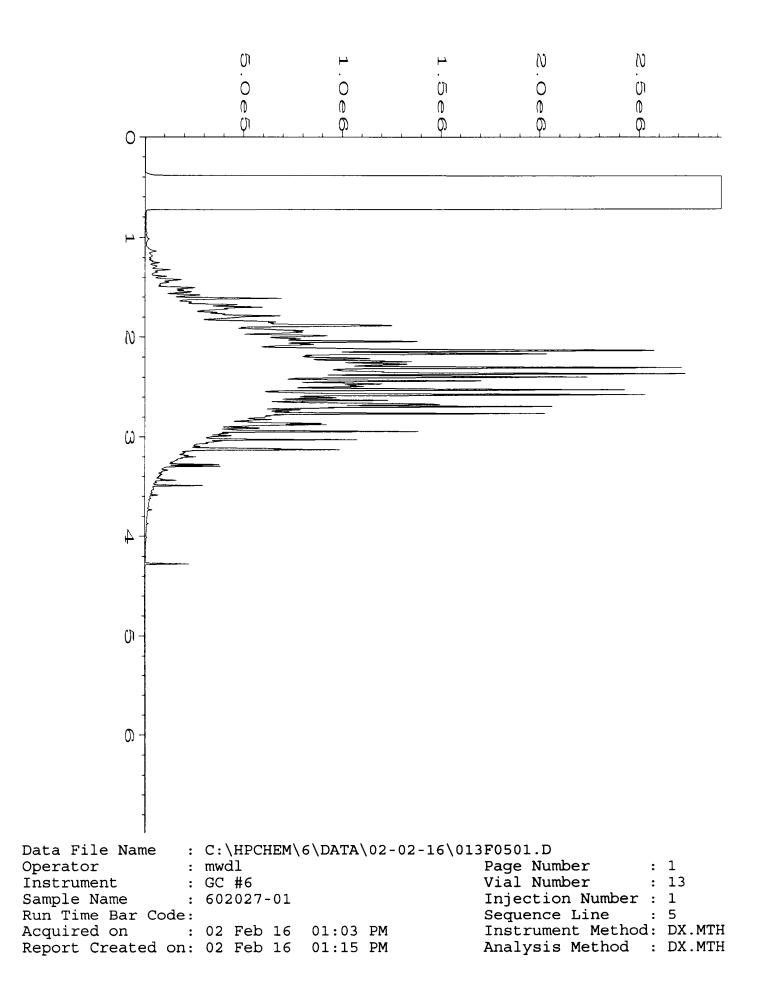
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

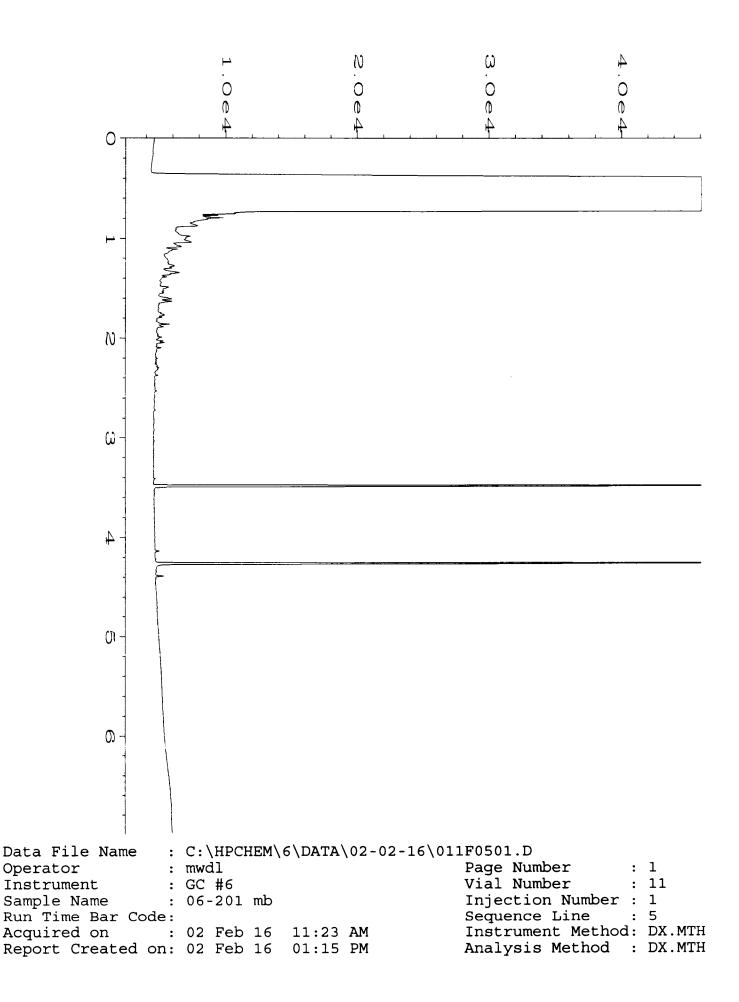
pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

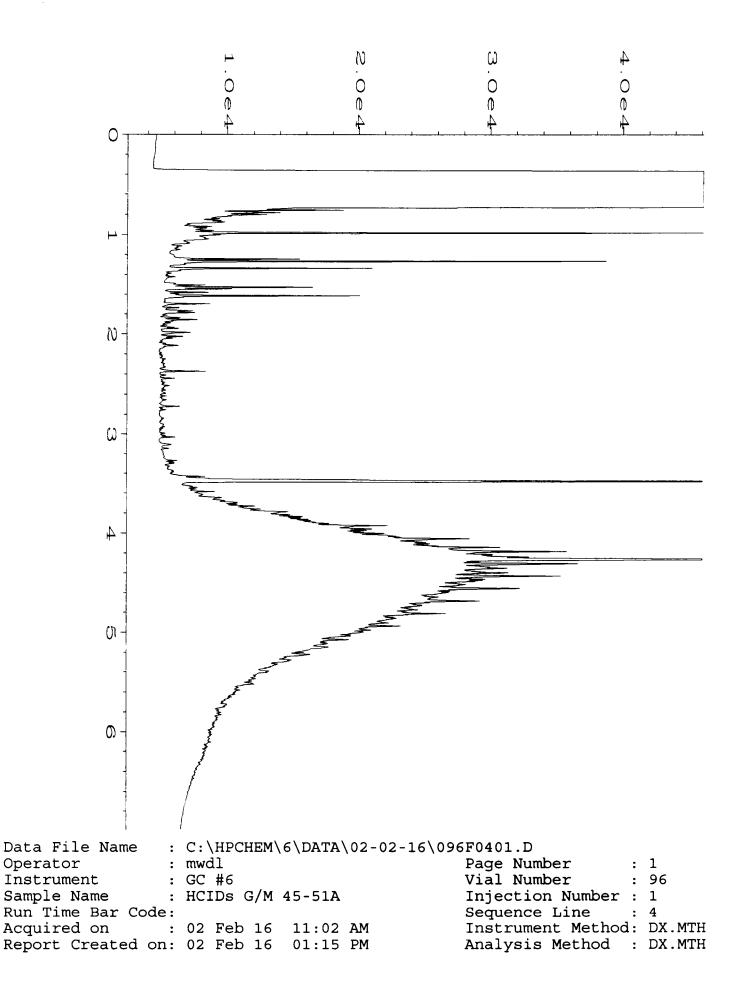
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

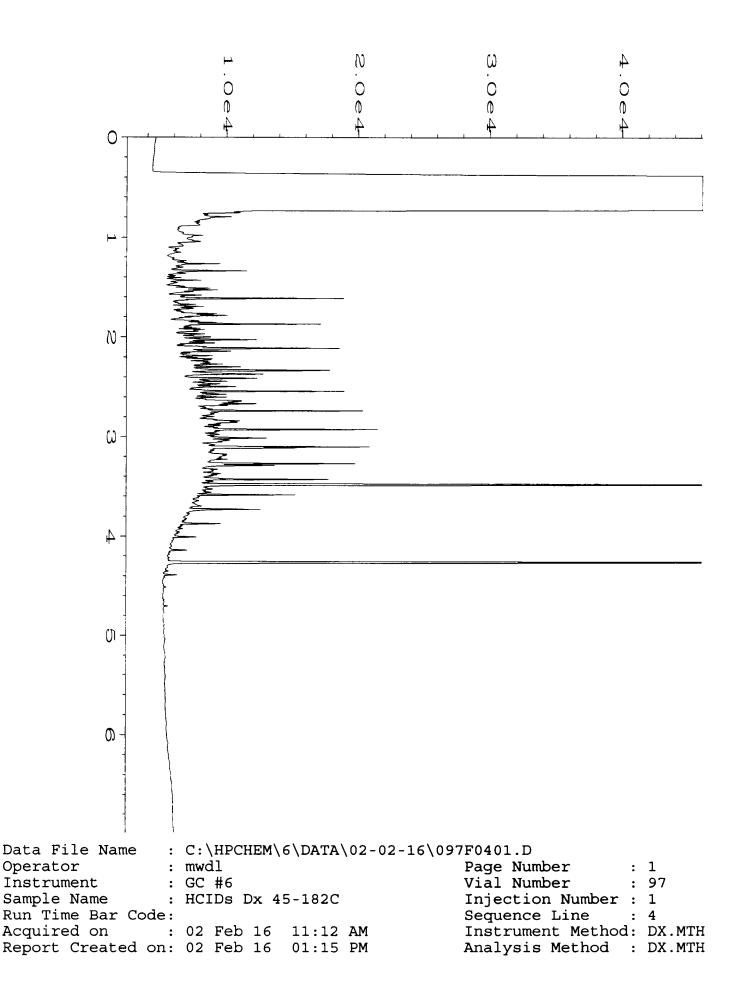
vo - The value reported fell outside the control limits established for this analyte.

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









60202.7			SAMPLI	E CHAIN	1 OF	CU	STC	DDY	7		N	١Ē	02	-07	-16	,		802	
Report To Cores	1		SAMPL	ERS (signe	(ure)				· · ·					Τ	P	• fe # _		of _/	
Report To <u>Grey</u> Company <u>Source</u> Address <u>Zoril</u> Faire	and And E	-+-1):+= 7 	<u> </u>			- .,/			4		PC	<b>)</b> #		-   ()   ()-   ()-   ()-	Stan	dard 7 H harge	AROUND	nd	
City, State, ZIP Phone(208) 4.76 - 5419 F				0432-01	57 p	~	2/16	, ,		[N	VOI	CE 1	ro		SAMPLE DISPOSAL Dispose after 30 days Archive Samples Other				
		1	· · · · · · · · · · · · · · · · · · ·		1					NAI	YSE	s Ri	QU	STEI	)				า
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jara	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCe by 8260C	SVOCs by 8270D	PAHs 8270D SDM	Flashpirint				N	otes	
USTOI- Predu	e + 01	C2/02/16	1130	Ρ	1	X						:	* *				K	- I _	1
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	<u>l</u>													mplea	- nec	eived	at 19	_•C	
Friedman & Bruya, Inc.	SI Relinquished by:	GNATURE	+		PRIN	IT N				$\neg$				ANY			DATE	TIME	]
3012 16th Avenue West	Received by:	reived by:				×'	2:	<u>-</u> ~	-				E3				1.3/16 5 110	1244	
Seattle, WA 98119-2029	Relinquished by.	Relinquished by.			Will Langston						FBIn. 2/2/16 12				1244				
Ph. (206) 285-8282	Received by:				<u></u>														

.

### 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

February 9, 2016

Corey League, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Mr. League:

Included are the additional results from the testing of material submitted on February 2, 2016 from the SOU\_0432-057\_20160202, F&BI 602027 project. There is 1 page 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 SOU0209R.DOC

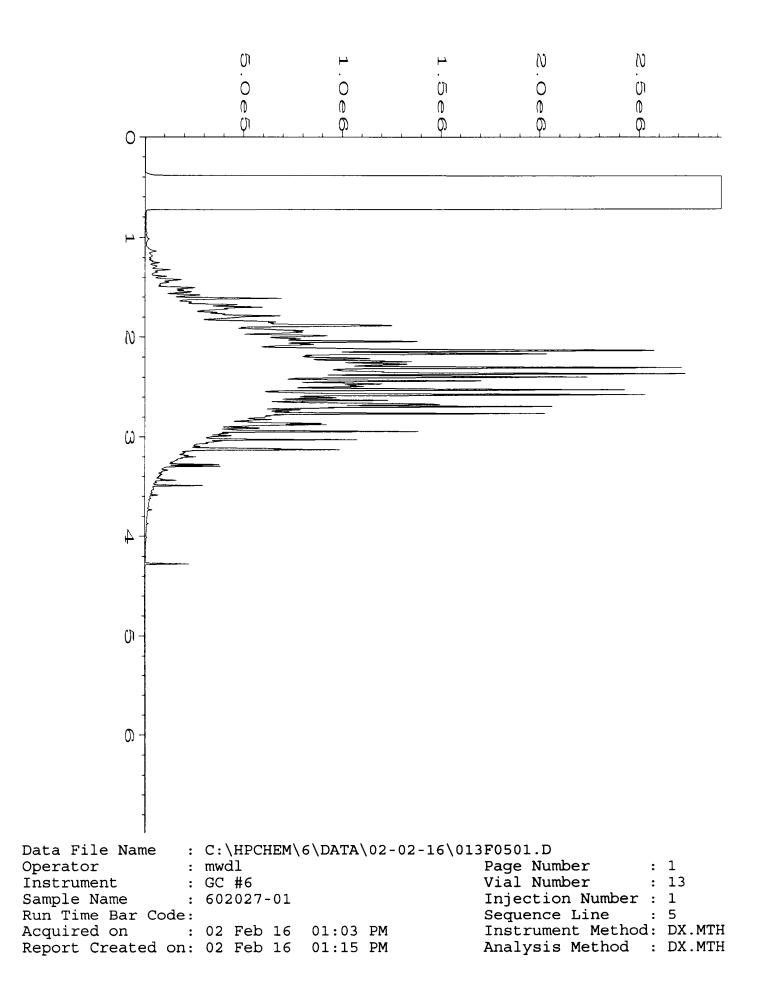
### ENVIRONMENTAL CHEMISTS

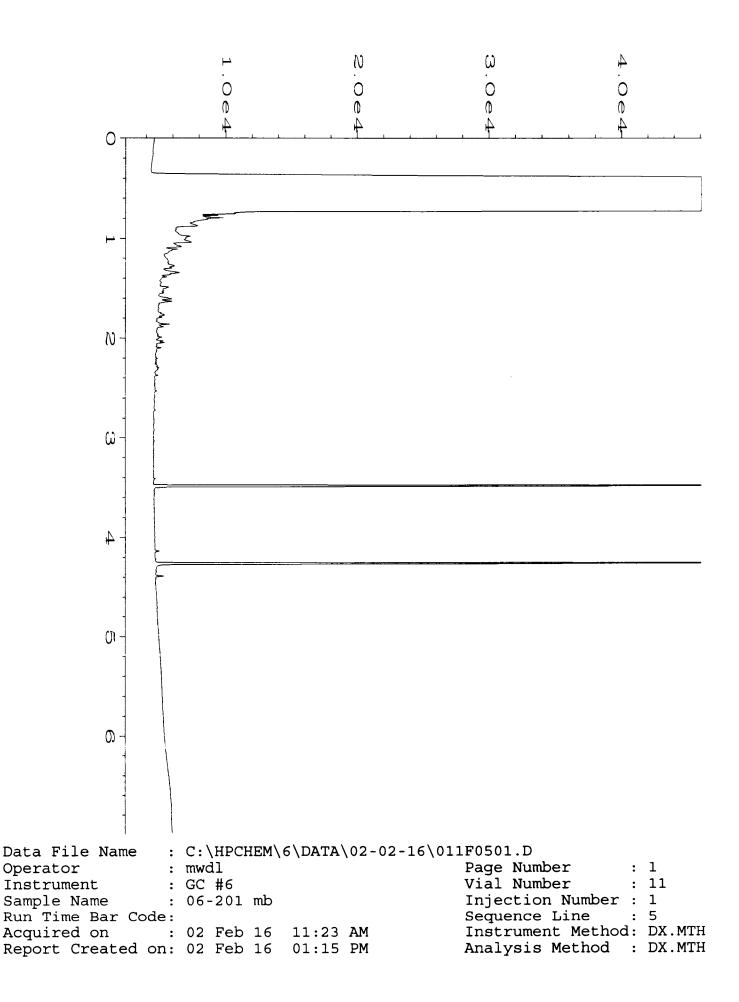
## CASE NARRATIVE

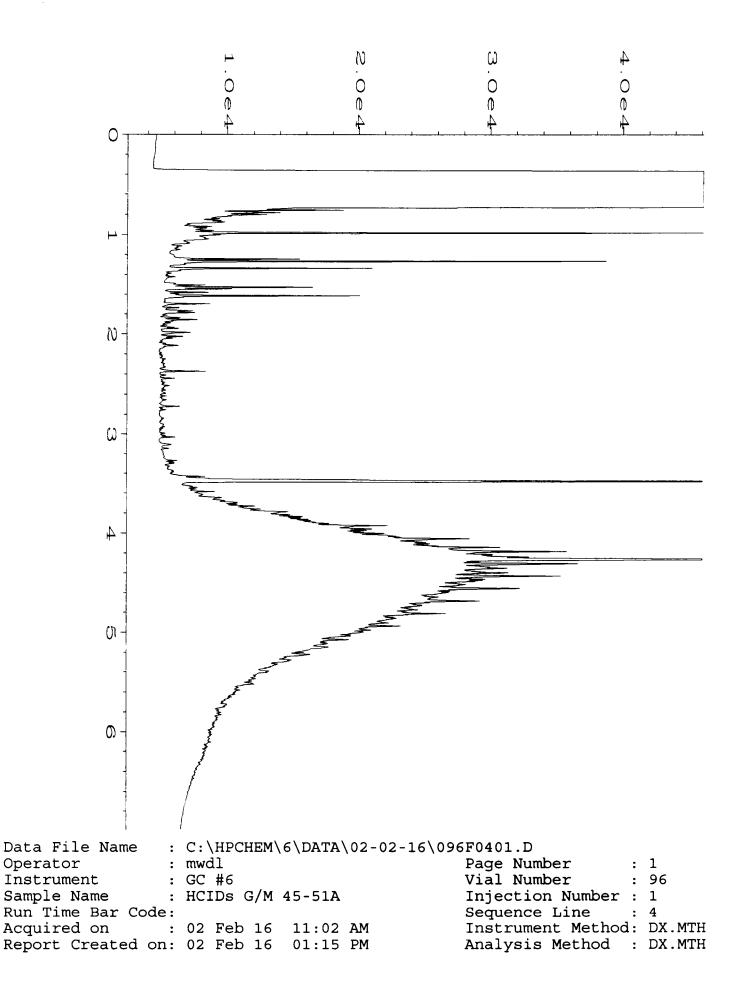
This case narrative encompasses samples received on February 2, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU\_ 0432-057\_ 20160202, F&BI 602027 project. Samples were logged in under the laboratory ID's listed below.

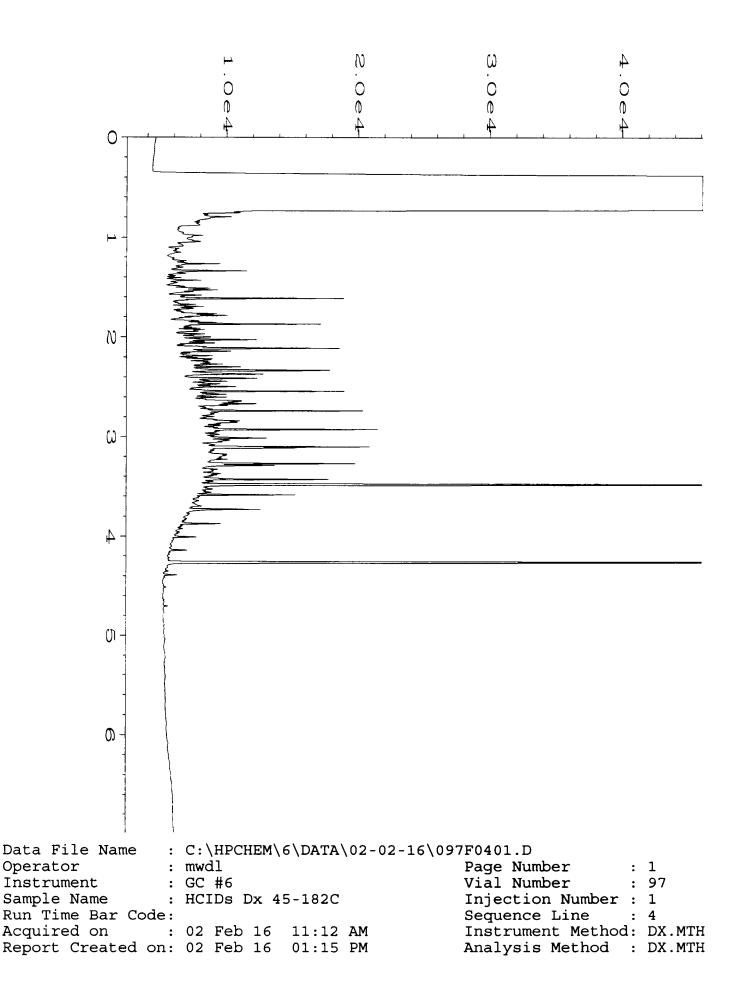
Laboratory ID	SoundEarth Strategies
602027 -01	UST01-Product

Sample UST01-Product was sent to Fremont Analytical for flashpoint analysis. The report is enclosed.











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

Friedman & Bruya Michael Erdahl 3012 16th Ave. W. Seattle, WA 98119

RE: 602027 Lab ID: 1602034

February 04, 2016

#### **Attention Michael Erdahl:**

Fremont Analytical, Inc. received 1 sample(s) on 2/3/2016 for the analyses presented in the following report.

#### Flashpoint by EPA 1010/ASTM D93

This report consists of the following:

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

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

Thank you for using Fremont Analytical.

Sincerely,

Mulc. Jedy

Mike Ridgeway President



CLIENT: Project: Lab Order:	Friedman & Bruya 602027 1602034	Work Order S	Sample Summary
Lab Sample ID 1602034-001	Client Sample ID UST01-Product	Date/Time Collected 02/02/2016 11:30 AM	Date/Time Received 02/03/2016 10:58 AM



**Case Narrative** 

WO#: **1602034** Date: **2/4/2016** 

CLIENT:Friedman & BruyaProject:602027

WorkOrder Narrative: I. SAMPLE RECEIPT:

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

#### **II. GENERAL REPORTING COMMENTS:**

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

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

#### **III. ANALYSES AND EXCEPTIONS:**

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

## **Qualifiers & Acronyms**



WO#: **1602034** Date Reported: **2/4/2016** 

### Qualifiers:

- \* Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- (<20%RSD, <20% Drift or minimum RRF)
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

Acronyms:

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



# **Analytical Report**

WO#: **1602034** Date Reported: **2/4/2016** 

Client: Friedman & Bruya				Collectior	Date:	2/2/2016 11:30:00 AM					
Project: 602027 Lab ID: 1602034-001	Matrix: Product										
Client Sample ID: UST01-Product	Result	DI	Qual	Unite	DE	Date Analyzed					
Analyses	Result	RL	Qual	Units	DF	Date Analyzed					
Flashpoint by EPA 1010/ASTM D9	<u>3</u>			Batcl	h ID: R2	27387 Analyst: WC					
Flashpoint	147			°F	1	2/4/2016 9:27:24 AM					



Work Order:	1602034									00.5	SUMMA		ORT
CLIENT:	Friedman & Bruya	a											
Project:	602027									Flashpoin	t by EPA 1	1010/AST	M D93
Sample ID LCS-R	27387 San	npType:	LCS			Units: °		Prep Dat	e: <b>2/4/20</b>	16	RunNo: 273	387	
Client ID: LCSW	Bat	ch ID:	R27387					Analysis Dat	e: <b>2/4/20</b>	16	SeqNo: 516	6846	
Analyte		R	esult	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Flashpoint			151		152.0	0	99.2	65	135				



## Sample Log-In Check List

Client Name: FB	Work Order Num	ber: <b>1602034</b>	Ļ	
Logged by: Erica Silva	Date Received:	2/3/2016	6 10:58:00 AM	
Chain of Custody				
1. Is Chain of Custody complete?	Yes 🔽	No 🗌	Not Present	
2. How was the sample delivered?	<u>Courier</u>			
Log In				
3. Coolers are present?	Yes	No 🗹	NA 🗌	
	No cooler prese	nt		
4. Shipping container/cooler in good condition?	Yes 🗹	No 🗌		
<ol> <li>Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)</li> </ol>	Yes 🗌	No 🗌	Not Required V	
6. Was an attempt made to cool the samples?	Yes 🔽	No 🗌	NA 🗌	
7. Were all items received at a temperature of $>0^{\circ}$ C to 10.	0°C* Yes ✔	No 🗌		
8. Sample(s) in proper container(s)?	Yes 🔽	No 🗌		
9. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌		
10. Are samples properly preserved?	Yes 🗹	No 🗌		
11. Was preservative added to bottles?	Yes	No 🗹	NA 🗌	
12. Is there headspace in the VOA vials?	Yes	No 🗌	NA 🗹	
13. Did all samples containers arrive in good condition(unbro	oken)? Yes 🗹	No 🗌		
14. Does paperwork match bottle labels?	Yes 🔽	No 🗌		
15. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗌		
16. Is it clear what analyses were requested?	Yes 🗹	No 🗌		
17. Were all holding times able to be met?	Yes 🗹	No 🗌		
Special Handling (if applicable)				
18. Was client notified of all discrepancies with this order?	Yes	No 🗌	NA 🗹	-
Person Notified:	Date			
By Whom:	Via: 🗌 eMail 🗌 Ph	none 🗌 Fax	In Person	
Regarding:				
Client Instructions:				
19. Additional remarks:				

#### Item Information

Item #	Temp ⁰C
Sample	7.8

1Ce02037

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To	Michae	l Erdahl			SUI	BCONTF	RACTI	ER F	remov	<u>_</u> +						Page # URNAROU		of [ TIME
		an and Bruya th Ave W	., Inc		PROJECT NAME/NO. PO # 602027 D-821							Standard (2 Weeks) RUSH 2/4//6 Rush charges authorized by:						
City, State, ZIP Phone #(206) 28	Seattle,	WA 98119	06) 283-5044		REN	MARKS Plea	ase Er	mail R	esults						<ul> <li>Dispo</li> <li>Retur</li> </ul>	SAMPLE D ose after 30 on samples call with ins	days	
										ANAI	LYSES	REG	UES	TED	)			
Sample ID	Lab ID	Date Sampled	Time Sampled	Mat	trix	# of jars	Dioxins/Furans	EPH	HdV	Nitrate	Sulfate	Alkalinity	Flashpeint				N	otes
USTOI - Product		2/2/16	# (130	Pred	uct	1							Х					
							1											
							1											
Friedman & Bruy 3012 16th Avenue		Retinguistica	SIGNATURE	0		Micha		PRINT dahl	NAM	E		Frie	the second se	the second s	ANY d Bruya	DA7		TIME 10:03
Seattle, WA 98113 Ph. (206) 285-828		Received by: Relinquished	lefbee	er	/	San	neu	the	B	zern	ren	F	AI	-		02/03		10:58
Fax (206) 283-504		Received by:										-						

60202.7			SAMPLI	E CHAIN	1 OF	CU	STC	DDY	7		N	١Ē	02	-07	-16	,		802	
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Seattle, WA 98119-2029	Relinquished by.	Relinquished by.			Will Langston						FBIn. 2/2/16 12				1244				
Ph. (206) 285-8282	Received by:				<u></u>														

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Friedman & Bruya, Inc. #602133

### 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

February 10, 2016

Corey League, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Mr. League:

Included are the results from the testing of material submitted on February 9, 2016 from the SOU\_0432-057-05\_ 20160209, F&BI 602133 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. 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 SOU0210R.DOC

### ENVIRONMENTAL CHEMISTS

## CASE NARRATIVE

This case narrative encompasses samples received on February 9, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU\_0432-057-05\_ 20160209, F&BI 602133 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
602133 -01	UST01-B01-07
602133 -02	UST01-B02-07
602133 -03	UST01-NSW01-04.5
602133 -04	UST01-ESW01-05
602133 -05	UST01-SSW01-05
602133 -06	UST01-WSW01-05
602133 -07	UST01-SP01A
602133 -08	UST01-SP01B
602133 -09	UST01-SP01C

The NWTPH-Dx chromatogram for sample UST01-B02-07 resembles kerosene or diesel fuel no.1.

All quality control requirements were acceptable.

### ENVIRONMENTAL CHEMISTS

Date of Report: 02/10/16 Date Received: 02/09/16 Project: SOU\_0432-057-05\_ 20160209, F&BI 602133 Date Extracted: 02/09/16 Date Analyzed: 02/09/16 and 02/10/16

### 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)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate ( <u>% Recovery)</u> (Limit 50-132)
UST01-B01-07 602133-01	< 0.02	< 0.02	< 0.02	< 0.06	<2	90
UST01-B02-07 602133-02 1/5	<0.02 j	<0.1	0.23	<0.3	510	90
UST01-NSW01-04.5 602133-03	< 0.02	< 0.02	< 0.02	<0.06	<2	91
UST01-ESW01-05 602133-04	< 0.02	< 0.02	< 0.02	< 0.06	<2	92
UST01-SSW01-05 602133-05	< 0.02	< 0.02	< 0.02	< 0.06	<2	91
UST01-WSW01-05 602133-06	< 0.02	< 0.02	< 0.02	<0.06	<2	92
UST01-SP01A 602133-07	< 0.02	< 0.02	< 0.02	<0.06	<2	93
UST01-SP01B 602133-08	< 0.02	< 0.02	< 0.02	< 0.06	<2	93
UST01-SP01C 602133-09	<0.02	< 0.02	< 0.02	<0.06	<2	90
Method Blank 06-223 MB	< 0.02	< 0.02	< 0.02	< 0.06	<2	77

### ENVIRONMENTAL CHEMISTS

Date of Report: 02/10/16 Date Received: 02/09/16 Project: SOU\_0432-057-05\_20160209, F&BI 602133 Date Extracted: 02/09/16 Date Analyzed: 02/09/16

### 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)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 56-165)
UST01-B01-07 602133-01	<50	<250	88
UST01-B02-07 602133-02	1,800	<250	86
UST01-NSW01-04.5 602133-03	<50	<250	84
UST01-ESW01-05 602133-04	<50	<250	78
UST01-SSW01-05 602133-05	<50	<250	76
UST01-WSW01-05 602133-06	<50	<250	80
UST01-SP01A 602133-07	<50	<250	80
UST01-SP01B 602133-08	<50	<250	89
UST01-SP01C 602133-09	<50	<250	80
Method Blank 06-262 MB	<50	<250	93

### ENVIRONMENTAL CHEMISTS

Date of Report: 02/10/16 Date Received: 02/09/16 Project: SOU\_0432-057-05\_ 20160209, F&BI 602133

### 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: 602130-02 (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)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

		Percent			
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
Benzene	mg/kg (ppm)	0.5	93	69-120	
Toluene	mg/kg (ppm)	0.5	92	70-117	
Ethylbenzene	mg/kg (ppm)	0.5	102	65-123	
Xylenes	mg/kg (ppm)	1.5	100	66-120	
Gasoline	mg/kg (ppm)	20	105	71-131	

### ENVIRONMENTAL CHEMISTS

Date of Report: 02/10/16 Date Received: 02/09/16 Project: SOU\_0432-057-05\_ 20160209, F&BI 602133

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

Laboratory Code: 602133-01 (Matrix Spike)							
			Sample	Percent	Percent		
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	(Wet Wt)	MS	MSD	Criteria	(Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	89	96	63-146	8
Laboratory Code: Laboratory Control Sample							
			Percent				
	Reporting	Spike	Recovery	Accept	tance		
Analyte	Units	Level	LCS	Crite	eria		
Diesel Extended	mg/kg (ppm)	5,000	91	79-1	44		

### ENVIRONMENTAL CHEMISTS

## **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.

 ${\bf b}$  - 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.

 ${\rm d}$  - 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 compound 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. Compounds in the sample matrix interfered with the quantitation of the analyte.

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.

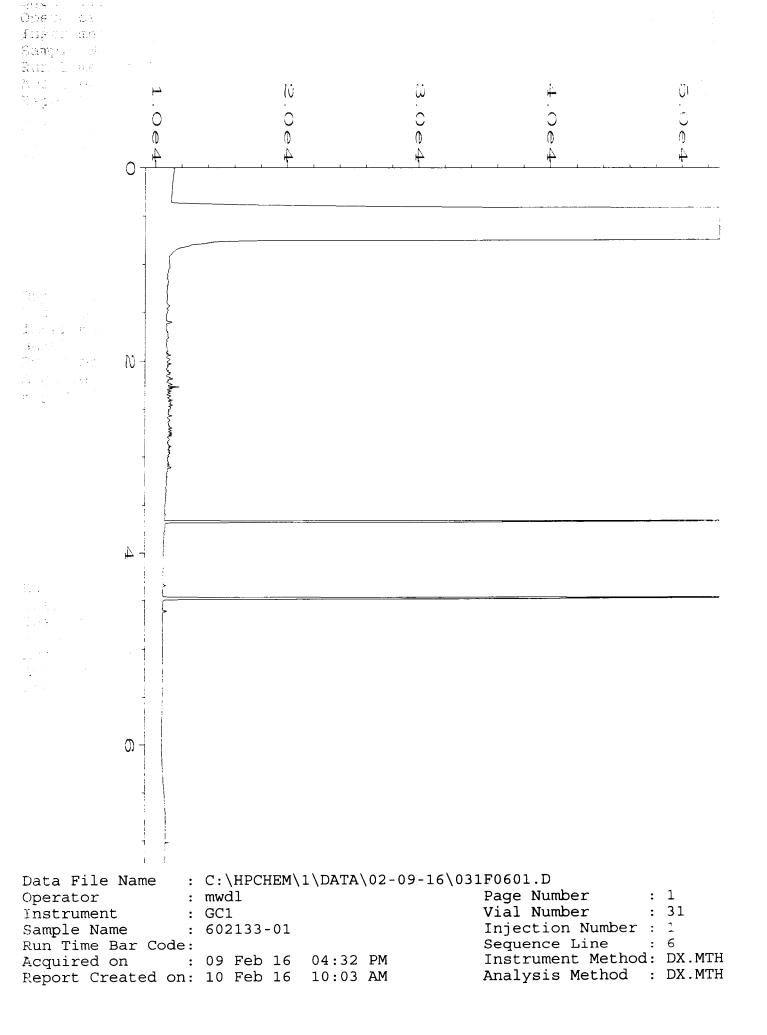
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

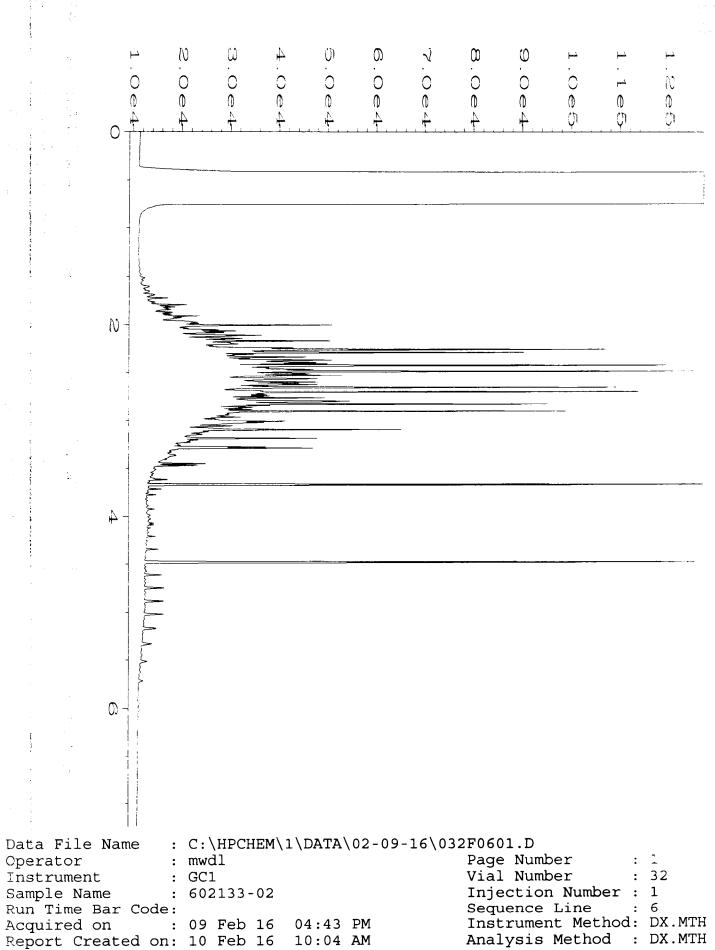
pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

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

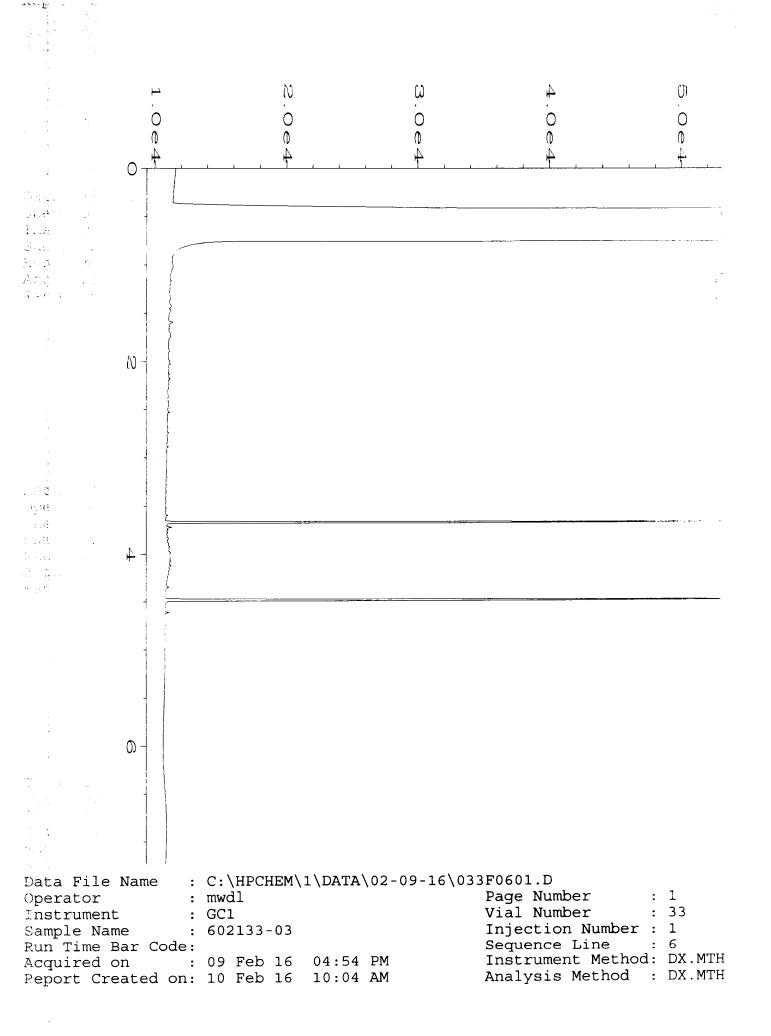
vo - The value reported fell outside the control limits established for this analyte.

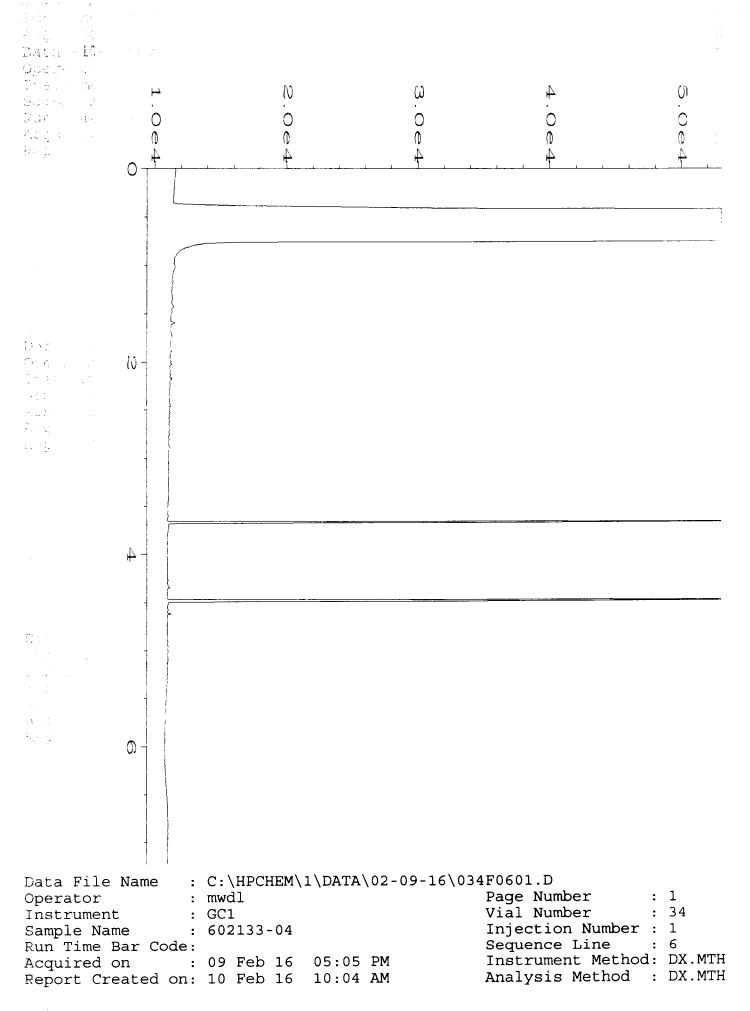
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



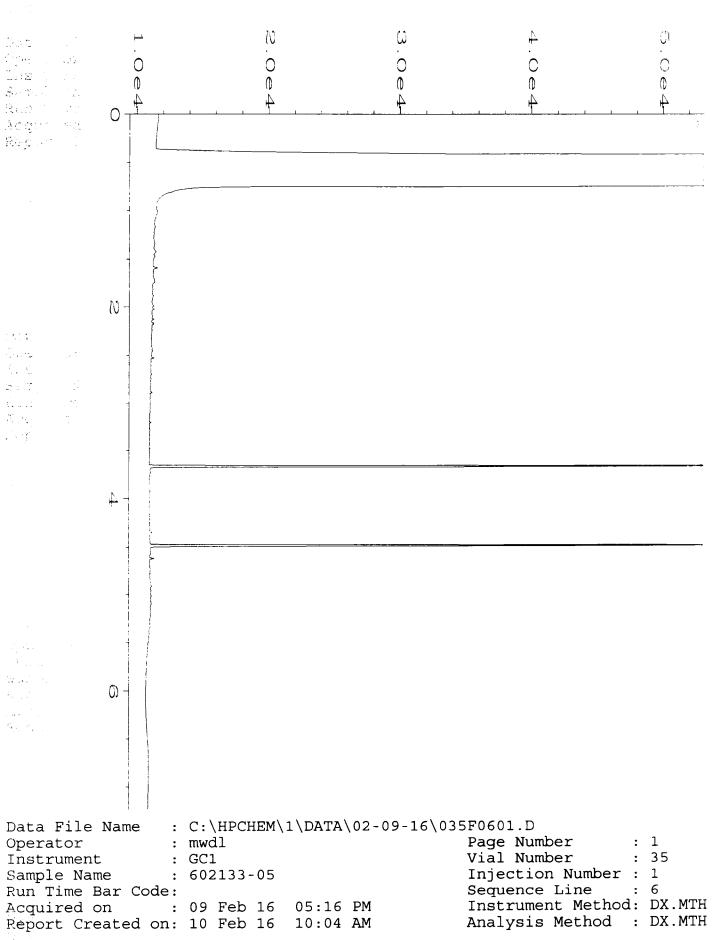


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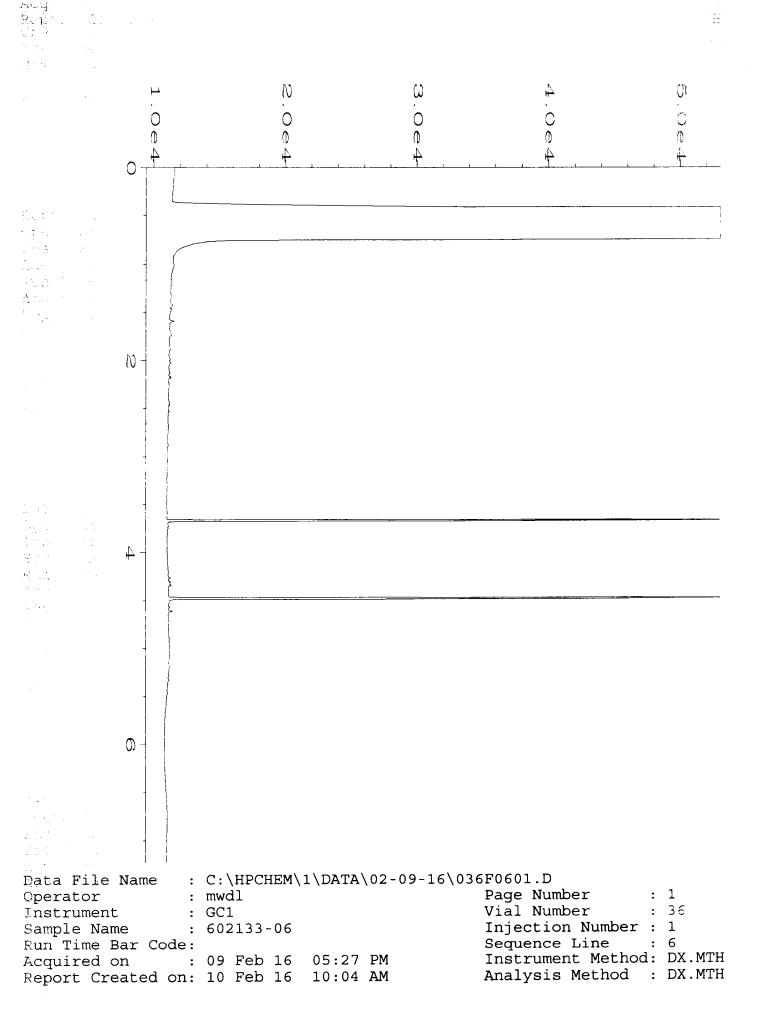




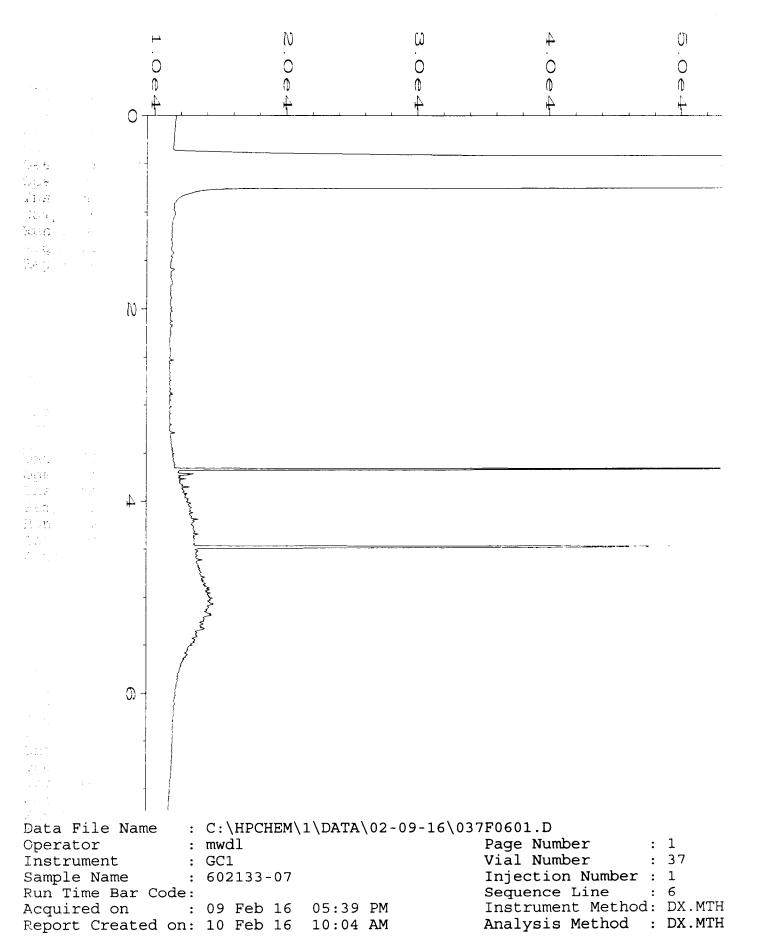
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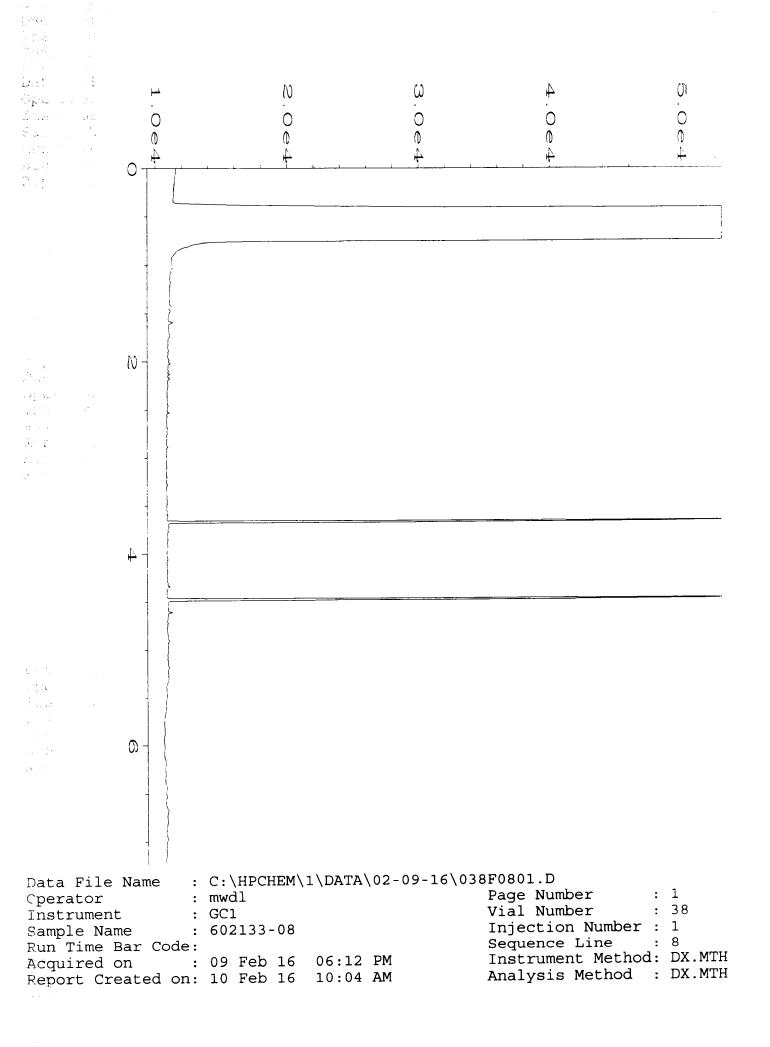
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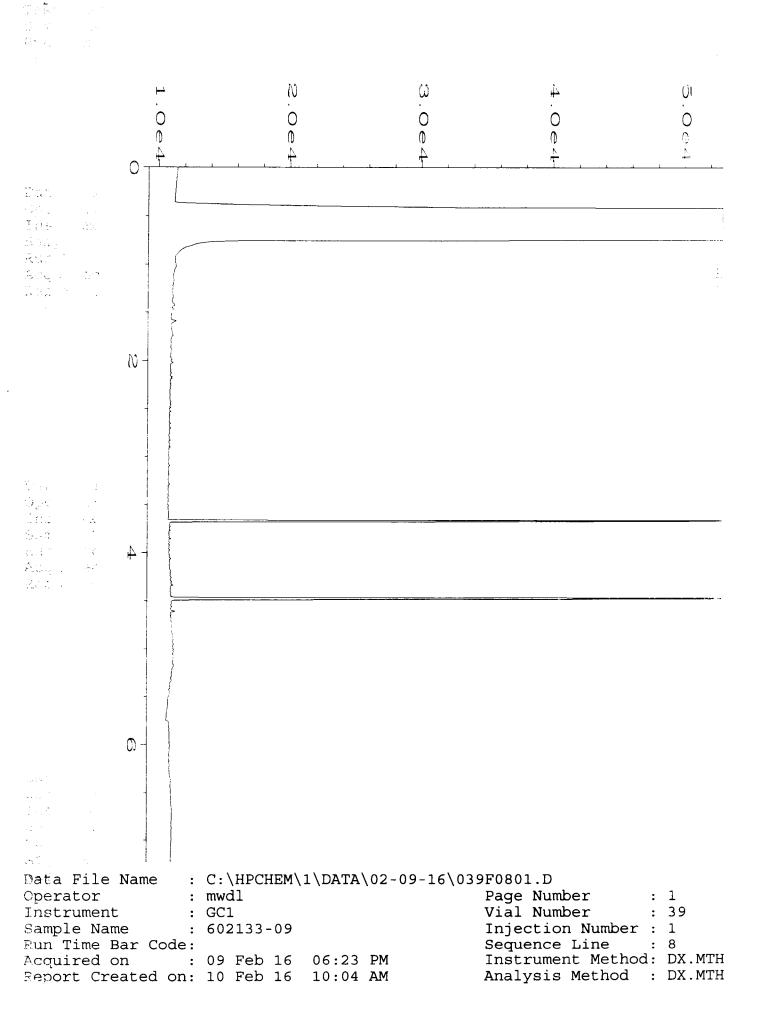


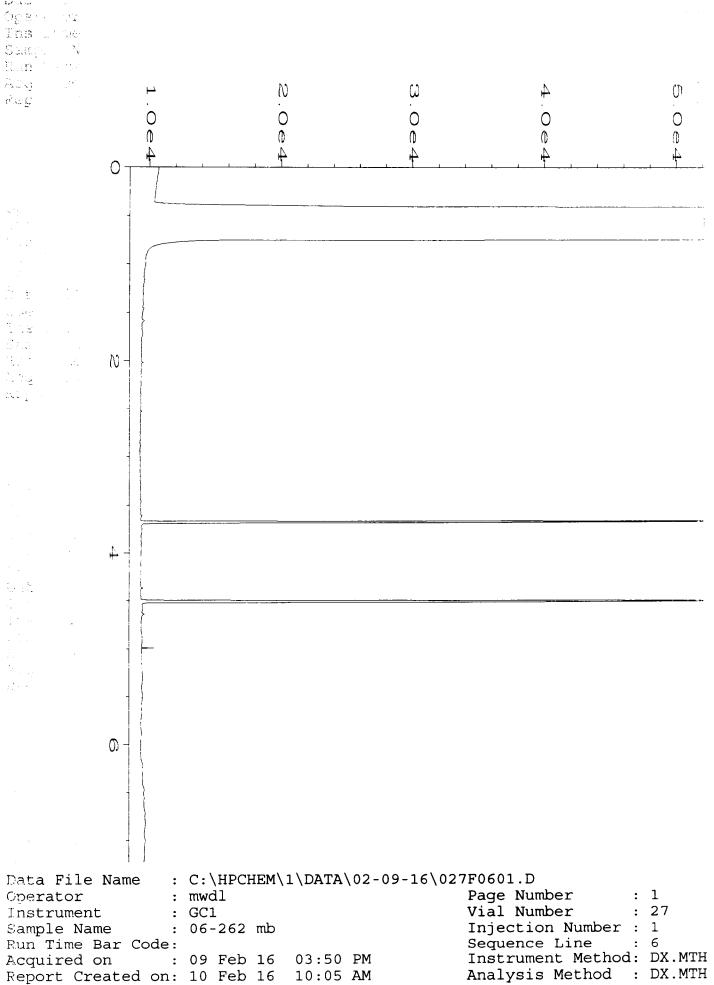


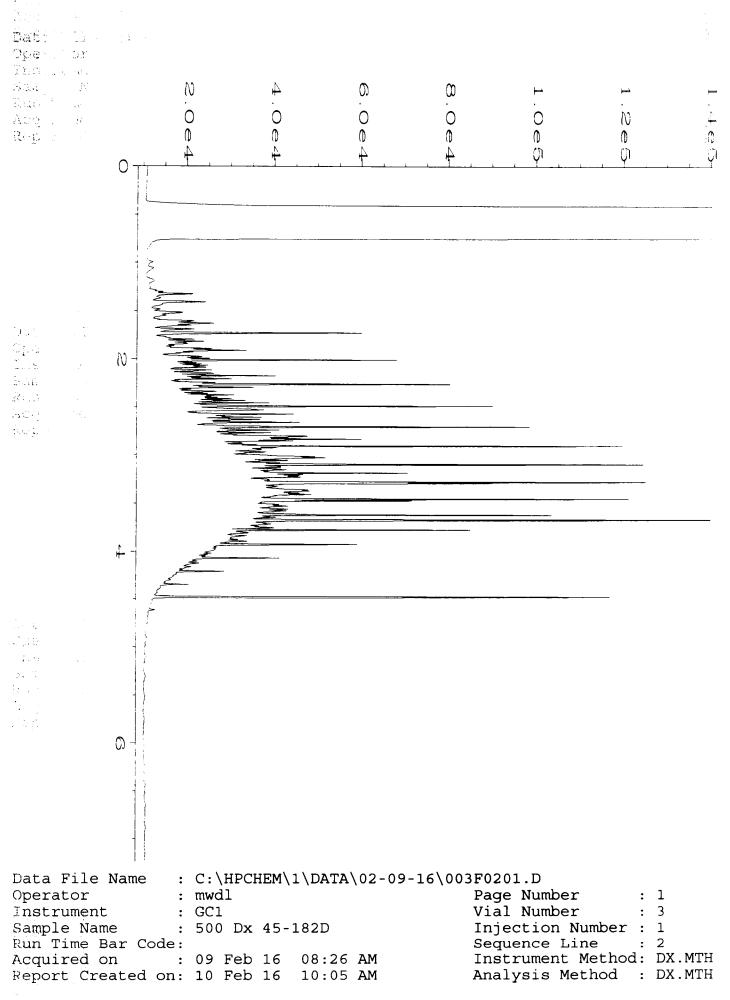


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City, State, ZIP <u>Sea</u> Phone # <u>206-306-1</u>		-	102 06-306	-1907	REMARKS			-Disp Retu	SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions								
			<u> </u>						. <u></u>	r -	<u>A</u>	NALYSES	REQUESTED	)	·····		
Sample ID	Sample Location	Sample Depth (Feo+)	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270			Notes		
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15T01 - ESwai - 05	E. Sidenall	5	04		1159												
45701 - 55-001-05	S. Sidewall	5	05		1204												
Lister - wence - 0.5		5	06		1210												
USTOI-SPOIA	Statpile	-	07		1220	•											
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Friedman & Bruya, Inc.	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
3012 16th Avenue West	Relinquished by:	Consy League	Sound Fronthe Structures	02/00/16	1401
Seattle, WA 98119-2029	Received by: Europent for a	Elizabeth Radford	F\$B	2/9/16	V
Ph. (206) 285-8282	Relinquished by:				
Fax (206) 283-5044	Received by:				
FORMS\COC\COC.DOC					J

#### 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

February 11, 2016

Corey League, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Mr. League:

Included are the additional results from the testing of material submitted on February 9, 2016 from the SOU\_0432-057-05\_20160209, F&BI 602133 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.

L

Michael Erdahl Project Manager

Enclosures SOU0211R.DOC

### ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on February 9, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU\_0432-057-05\_ 20160209, F&BI 602133 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
602133 -01	UST01-B01-07
602133 -02	UST01-B02-07
602133 -03	UST01-NSW01-04.5
602133 -04	UST01-ESW01-05
602133 -05	UST01-SSW01-05
602133 -06	UST01-WSW01-05
602133 -07	UST01-SP01A
602133 -08	UST01-SP01B
602133 -09	UST01-SP01C

All quality control requirements were acceptable.

# ENVIRONMENTAL CHEMISTS

# Analysis For Total Metals By EPA Method 200.8

3.46

Lead

Client ID:	UST01-B02-07	Client:	SoundEarth Strategies
Date Received:	02/09/16	Project:	SOU_0432-057-05_20160209, F&BI 602133
Date Extracted:	02/11/16	Lab ID:	602133-02
Date Analyzed:	02/11/16	Data File:	602133-02.021
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
	Concentration		
Analyte:	mg/kg (ppm)		
- • ·			
Cadmium	3.37		
Chromium	7.98		

# ENVIRONMENTAL CHEMISTS

# Analysis For Total Metals By EPA Method 200.8

<1

Lead

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0432-057-05_20160209, F&BI 602133
Date Extracted:	02/11/16	Lab ID:	I6-77 mb2
Date Analyzed:	02/11/16	Data File:	I6-77 mb2.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
	Concentration		
Analyte:	mg/kg (ppm)		
Coductions	.1		
Cadmium	<1		
Chromium	<5		

#### ENVIRONMENTAL CHEMISTS

Date of Report: 02/11/16 Date Received: 02/09/16 Project: SOU\_0432-057-05\_20160209, F&BI 602133

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 602142-01 (Matrix Spike)

			Sample	Percent	Percent		
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	(Wet wt)	MS	MSD	Criteria	(Limit 20)
Cadmium	mg/kg (ppm)	10	1.22	84	84	70-130	0
Chromium	mg/kg (ppm)	50	11.0	75	74	70-130	1
Lead	mg/kg (ppm)	50	955	0 b	0 b	70-130	0 b

Laboratory Code: Laboratory Control Sample

Laboratory cot	ie. Euboratory com	a or Sumple	Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Cadmium	mg/kg (ppm)	10	100	85-115
Chromium	mg/kg (ppm)	50	102	85-115
Lead	mg/kg (ppm)	50	94	85-115

#### ENVIRONMENTAL CHEMISTS

### **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.

 ${\bf b}$  - 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.

 ${\rm d}$  - 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 compound 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. Compounds in the sample matrix interfered with the quantitation of the analyte.

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.

602133	SAMPLE CHAIN OF CUSTODY	ME 02,	107/16 VS3/B
Send Report to Langue	SAMPLERS (signature)		TURNAROUND TIME
CompanySoundEarth Strategies. Inc         Address2811 Fairview Avenue E. Suite	PROJECT NAME/NO. <i>C<sup>1</sup> イ る こ - い</i> ジ テー 2000	PO#	Standard (2 Weeks) -RUSH Rush charges authorized by:
City, State, ZIP <u>Seattle. Washington 98102</u> Phone # <u>206-306-1900</u> Fax # <u>206-306</u>	REMARKS	1	SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions

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									r	r	Α.	NALYSI	es requ	JESTED	 
Sample ID	Sample Location	Sample Depth (feo+)	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	XG-H4TTWN	NWTPH-Ga	BTEX by 8021B	VOCa by 8260	SVOCe by 8270	מיט'אי ני		Notes
LISTON- BLN - 07	B. Ham, E	7	ore	c=lo-fil	1135	5.1	5	×	×	×	<b> </b>		 		 * pr CL
4501-802-07	Bi them, W	7	21		1175			1		1			*		2/10/12
LISTER - NEWON 07.5	N. Sintemill	4.5	03		115-3										ins
(15T01 - ESwai .05	E. 5: down 4	5	04		1159										
45701 - SEW0, -05.	S. Sidowall	5	05		1204										
Lister - usuer - 05	W. white P	5-	06		1210										
USTOI-SPOIA	5++p:1e	-	07		1220	•									
USTOI- SPOIB	Stackpile		08		1282								•		
USTOI-SPOIC	Stackpile		09 V		1225						1				 
					•					†			S	ample	ved at _

Friedman & Bruya, Inc.	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
3012 16th Avenue West	Relinquished by:	Corry League	Sound First Stankinger	02/00/16	1401
Seattle, WA 98119-2029	Received by: Elizabert for and	Elizabeth Radford	F#B	2/9/16	V
Ph. (206) 285-8282	Relinquished by:	J			
Fax (206) 283-5044	Received by:				
FORMS\COC\COC.DOC					

Friedman & Bruya, Inc. #602167

#### 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

February 12, 2016

Corey League, Project Manager SoundEarth Strategies 2811 Fairview Ave. East, Suite 2000 Seattle, WA 98102

Dear Mr. League:

Included are the results from the testing of material submitted on February 10, 2016 from the SOU\_ 0432-057-05\_ 20160210, F&BI 602167 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. 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 SOU0212R.DOC

### CASE NARRATIVE

This case narrative encompasses samples received on February 10, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU\_0432-057-05\_20160210, F&BI 602167 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
602167 -01	UST01-B03-08

All quality control requirements were acceptable.

Date of Report: 02/12/16 Date Received: 02/10/16 Project: SOU\_0432-057-05\_20160210, F&BI 602167 Date Extracted: 02/11/16 Date Analyzed: 02/11/16

#### 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)

			Ethyl	Total	Gasoline	Surrogate
<u>Sample ID</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Benzene</u>	<u>Xylenes</u>	<u>Range</u>	( <u>% Recovery)</u>
Laboratory ID						(Limit 50-132)
UST01-B03-08	< 0.02	< 0.02	< 0.02	< 0.06	<2	90
602167-01						
Method Blank	< 0.02	< 0.02	< 0.02	< 0.06	<2	91
06-227 MB	<0.02	<0.02	<0.02	<0.00	<2	91

Date of Report: 02/12/16 Date Received: 02/10/16 Project: SOU\_0432-057-05\_20160210, F&BI 602167 Date Extracted: 02/11/16 Date Analyzed: 02/11/16

#### 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)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 53-144)
UST01-B03-08 602167-01	<50	<250	104
Method Blank 06-268 MB	<50	<250	107

# Analysis For Total Metals By EPA Method 200.8

Client ID:	UST01-B03-08	Client:	SoundEarth Strategies
Date Received:	02/10/16	Project:	SOU_0432-057-05_20160210, F&BI 602167
Date Extracted:	02/11/16	Lab ID:	602167-01
Date Analyzed:	02/11/16	Data File:	602167-01.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Cadmium	<1		

# Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_0432-057-05_20160210, F&BI 602167
Date Extracted:	02/11/16	Lab ID:	I6-80 mb
Date Analyzed:	02/11/16	Data File:	I6-80 mb.051
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Cadmium	<1		

Date of Report: 02/12/16 Date Received: 02/10/16 Project: SOU\_0432-057-05\_20160210, F&BI 602167

### 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: 602167-01 (Duplicate)

		Sample	Duplicate	
	Reporting	Result	Result	RPD
Analyte	Units	(Wet Wt)	(Wet Wt)	(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)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	mg/kg (ppm)	0.5	76	66-121
Toluene	mg/kg (ppm)	0.5	87	72-128
Ethylbenzene	mg/kg (ppm)	0.5	90	69-132
Xylenes	mg/kg (ppm)	1.5	86	69-131
Gasoline	mg/kg (ppm)	20	90	61-153

Date of Report: 02/12/16 Date Received: 02/10/16 Project: SOU\_0432-057-05\_20160210, F&BI 602167

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

Laboratory Code:	602167-01 (Matri	x Spike)							
			Sample	Percent	Percent				
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD		
Analyte	Units	Level	(Wet Wt)	MS	MSD	Criteria	(Limit 20)		
Diesel Extended	mg/kg (ppm)	5,000	80	99	105	64-133	6		
Laboratory Code: Laboratory Control Sample									
			Percent						
	Reporting	Spike	Recovery	y Accep	tance				
Analyte	Units	Level	LCS	Crite	eria				
Diesel Extended	mg/kg (ppm)	5,000	99	58-1	47				

#### Date of Report: 02/12/16 Date Received: 02/10/16 Project: SOU\_0432-057-05\_20160210, F&BI 602167

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Co	Laboratory Code: 602167-01 (Matrix Spike)									
			Sample	Percent	Percent					
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD			
Analyte	Units	Level	(Wet wt)	MS	MSD	Criteria	(Limit 20)			
Cadmium	mg/kg (ppm)	10	<1	92	103	70-130	11			

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Cadmium	mg/kg (ppm)	10	105	85-115

## **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.

 ${\bf b}$  - 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 compound is a common laboratory and field contaminant.

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

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. Compounds in the sample matrix interfered with the quantitation of the analyte.

 ${\bf j}$  - 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.

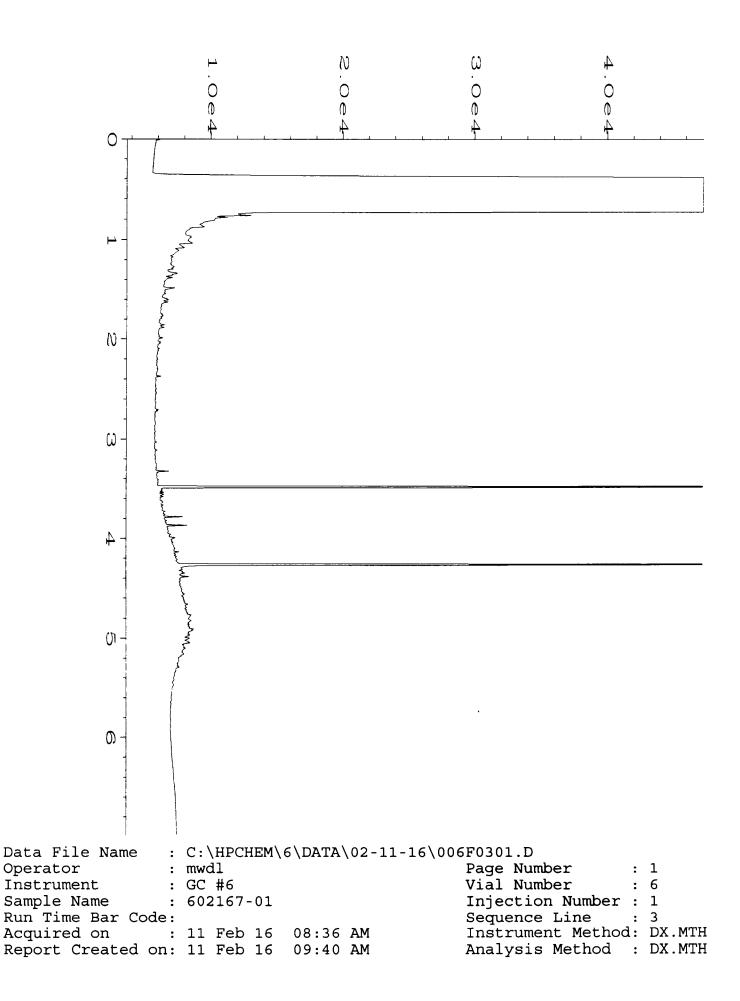
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

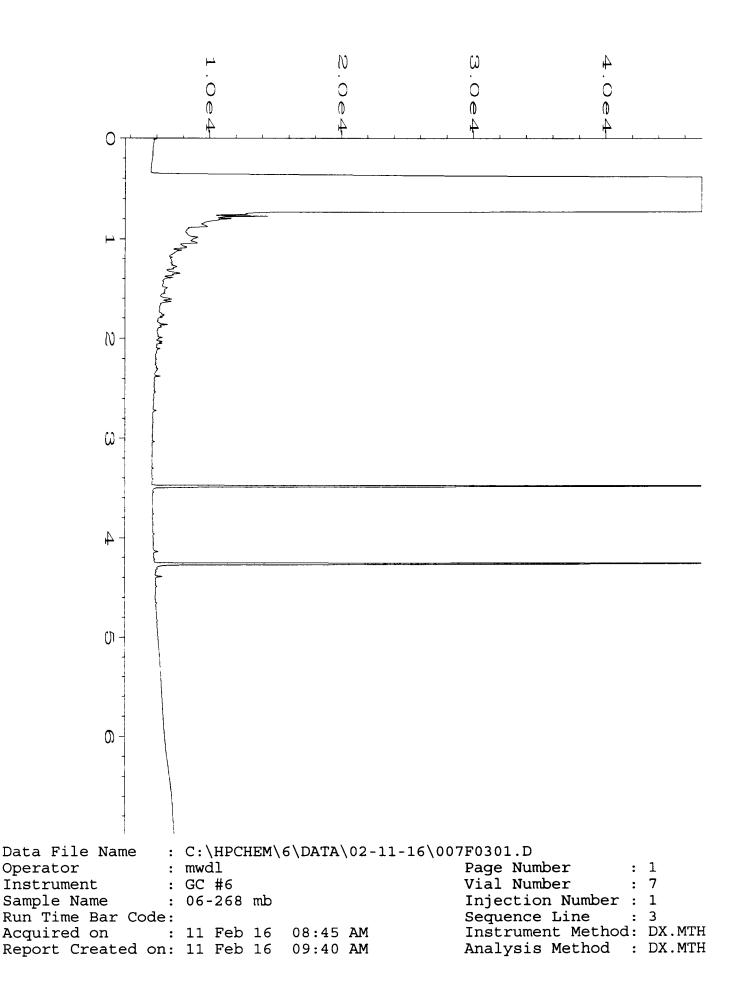
pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

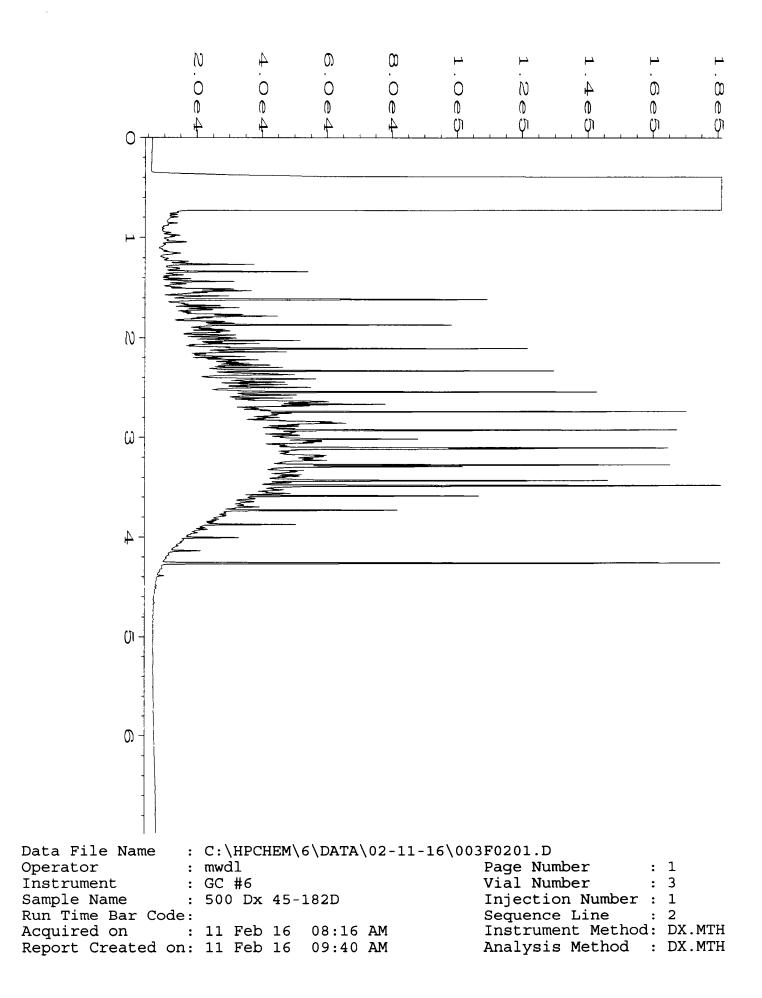
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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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# ATTACHMENT E CONTAMINATED SOIL DISPOSAL TICKET

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