



Plaza 600 Building  
600 Stewart Street, Suite 1700  
Seattle, Washington 98101  
206.728.2674

July 13, 2015

Ninth and Lenora LLC  
c/o GID Urban Development Acquisitions LLC  
125 High Street  
High Street Tower, 27<sup>th</sup> Floor  
Boston, Massachusetts 02110

Attention: Jeffrey Lowenberg

Subject: Northeast Heating Oil UST Removal and Site Assessment Report  
9<sup>th</sup> and Lenora Development Project  
Seattle, Washington  
GeoEngineers File No. 21138-001-03

## **INTRODUCTION**

This report presents the results of the heating oil underground storage tank (UST) system removal monitoring and site assessment activities completed in June 2015 at the 9<sup>th</sup> and Lenora development property (Subject Property). The Subject Property (approximately 0.49-acres) comprises two King County tax parcels (0660000540 and 0660000545) located at 2118 Westlake Avenue and 2101 9<sup>th</sup> Avenue, respectively, in Seattle, Washington. Ninth and Lenora LLC owns the Subject Property which is currently a construction site. The Subject Property is bounded to the north by a retail building, Lenora Street to the south, 9<sup>th</sup> Avenue to the east, and a public alley to the west. The Subject Property is shown relative to surrounding physical features on the Vicinity Map, Figure 1.

The UST system consisting of a fill port, fuel supply line, and a steel diesel tank (approximately 1,750 gallons) was discovered at the 2118 Westlake Avenue property (parcel 0660000540) in June 2015 during construction activities associated with the Subject Property redevelopment. The UST and associated components were located in the northeast portion of the Subject Property close to 9<sup>th</sup> Avenue. Approximate locations of the UST and associated components relative to Subject Property layout are shown on the Site Plan, Figure 2.

## **UST SYSTEM REMOVAL**

The UST and associated components were removed by Marine Vacuum Services (Mar-Vac) and CTI Construction (CTI) from June 8 to June 11, 2015. Fasih Khan of GeoEngineers, Inc. (GeoEngineers) was the certified UST Site Assessor and Gary Galloway of Galloway Environmental, Inc. (Galloway) was the



certified UST decommissioning supervisor (Certificate No. 0878867-U2). A marine chemist from Sound Testing Services and a City of Seattle Fire Marshal were on-site during UST removal. Photographs of UST removal are presented in the Site Photos section of this report. Following is a summary of UST removal activities:

- Mar-Vac removed approximately 200 gallons of liquid (likely a mixture of petroleum product and water) from the UST system (fill port, fuel line and the tank) on June 8, 2015 using a vacuum truck. Mar-Vac then triple rinsed the tank and removed the rinse fluids.
- A sample (HOT\_HCID) was obtained from the tank liquids to identify the tank contents. The sample was submitted to a laboratory (Friedman & Bruya, Inc., Seattle, Washington) for chemical analysis of petroleum hydrocarbons identification by method NWTPH-HCID. The chemical analytical results identified diesel fuel #2 (heating oil) as the petroleum product in the tank. Gasoline and heavy oil were not detected in the sample.
- CTI removed approximately 2 to 3 feet of overburden soil to expose the fuel line and the top of the UST on June 11, 2015. Field screening results for the overburden yielded slight sheen, no odor, and no headspace vapors. The overburden soil was temporarily stockpiled on a concrete slab. A marine chemist inerted the tank. After approval from the Fire Marshall, CTI disconnected the fill port and the fuel supply line from the UST, prior to removal of the tank.
- The top of the UST was observed at an approximate depth of 2 feet (estimated elevation 67 feet) below the existing concrete slab (remnant from former Subject Property improvements). The steel tank measured approximately 12 feet in length and 5 feet in diameter (approximately 1,750 gallons). The tank appeared to be in good physical condition except for one 3/4-inch diameter hole in its side near the bottom of the tank (see photos).
- Mar-Vac transported the UST off-site for disposal. Tank removal certificates and liquid/tank disposal receipts are provided in Attachment B.
- CTI removed a 2-inch diameter iron vent pipe, a 6-inch diameter fill port, and a 2-inch diameter fuel line associated with the tank. The UST fill port located near 9<sup>th</sup> Avenue and the supply line leading to the UST appeared to be in good physical condition—no cracks/holes were observed in the piping.
- CTI backfilled the UST excavation using the stockpiled overburden soil.

## UST SITE CHECK/SITE ASSESSMENT

GeoEngineers completed a UST Site Check/Site Assessment in accordance with the UST Regulations (Washington Administrative Code [WAC] Chapter 173-360) and Washington State Department of Ecology (Ecology) Guidance. Galloway was the UST decommissioner. The UST Site Check/Site Assessment activities and findings are discussed below. Approximate locations of the site assessment soil samples relative to the former UST and fuel supply line are shown on Figure 2. Field screening and soil sampling procedures are described in Attachment A. Documents associated with UST decommissioning and removal are presented in Attachment B.



### Soil Conditions

Based on field observations during UST removal and previous explorations completed at the Subject Property, shallow fill soil generally consisted of sand with varying amounts of silt, gravel and wood-concrete debris. The fill was underlain by dense to very dense silty sand with variable gravel content and very stiff to hard silt. The fill layer appears to be about 6 to 15 feet thick across portions of the Subject Property.

### Groundwater Conditions

Based on groundwater measurements in an existing monitoring well installed in 2013 for geotechnical purposes, depth-to-groundwater ranged from approximately 53 feet (estimated elevation 14 feet) to 55 feet (estimated elevation 12 feet) below the concrete slab. Groundwater was not observed in the UST excavation during UST removal activities and impacts to groundwater from the UST contents are not anticipated as discussed below.

### Soil Sampling

- Soil in the UST excavation was assessed on June 11, 2015 for evidence of petroleum contamination using visual, water sheen and headspace vapor screening methods. Based on field screening and observations, soil in the UST excavation appeared to be petroleum-impacted (slight to heavy sheen, mild to strong petroleum odor, and 0 to 13 parts per million [ppm] headspace vapor readings).
- Field screening evidence of petroleum contamination was not observed in the soil sample from beneath the fuel line.
- Sample STKPL was obtained from the stockpiled overburden. Sample UST3-FL-2.0 was obtained from below the fuel line at an approximate depth of 2 feet below existing grade (estimated elevation 72 feet). Samples UST3-N-3.0, UST3-S-3.0, 1@3', and 2@3' were obtained at an approximate depth of 3 feet below the concrete slab (estimated elevation 64 feet) from the north, south, east, and west sidewalls of the UST excavation. Samples UST3-B-7.0 and Base@7' were obtained at an approximate depth of 7 feet below the concrete slab (estimated elevation 60 feet) from the base of UST excavation.
- Standard chain-of-custody procedures were followed during sample storage and transport to the laboratory.
- Soil samples were submitted to Onsite Environmental Laboratory in Redmond, Washington for chemical analysis of one or more of the following: BETX (benzene, ethylbenzene, toluene, and xylenes) by US Environmental Protection Agency (EPA) Method 8021B and diesel- and lube oil-range hydrocarbons by Ecology Method NWTPH-Dx.

### Soil Chemical Analytical Results

The eight soil samples described above were submitted for analysis of BETX, and/or diesel- and lube oil-range hydrocarbons. Soil chemical analytical results are summarized in Table 1 below. A copy of the laboratory reports is presented in Attachment C.



**TABLE 1. SOIL CHEMICAL ANALYTICAL RESULTS**

Sample Identification	Sample Date	Sample Depth (feet bgs)	Field Screening		Petroleum Hydrocarbons <sup>1</sup>	
			Sheen	Headspace Vapor (ppm)	Diesel-Range (mg/kg)	Lube Oil-Range (mg/kg)
<b>Overburden Stockpile Sample</b>						
STKPL <sup>2</sup>	6/11/2015	3.0	SS	<1	<b>44</b>	<b>180</b>
<b>UST Excavation Samples</b>						
UST3-N-3.0	6/11/2015	3.0	SS	<1	<28	<56
UST3-S-3.0	6/11/2015	3.0	SS	<1	<28	<57
UST3-B-7.0	6/11/2015	7.0	HS	13	<b>2,300</b>	<b>1,400</b>
1@3' <sup>2</sup>	6/11/2015	3.0	SS	<1	<30	<59
2@3' <sup>2</sup>	6/11/2015	3.0	SS	<1	<31	<b>100</b>
Base@7' <sup>2</sup>	6/11/2015	7.0	HS	13	<b>3,800</b>	<b>2,300</b>
<b>Fuel Line Trench Sample</b>						
UST3-FL-2.0	6/11/2015	2.0	NS	0	<28	<56
MTCA A Cleanup Level for Unrestricted Land Use					2,000	2,000

**Notes:**<sup>1</sup>Analyzed by Ecology Method NWTPH-Dx<sup>2</sup>Sample was also analyzed for BETX by EPA Method 8021B. BETX compounds were not detected. Please refer to the laboratory reports presented in Attachment C.

bgs = below ground surface

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act

NS = No sheen; SS = Slight sheen; HS = Heavy sheen

ppm = parts per million

Yellow shaded values represent MTCA exceedance

Diesel- and lube oil-range petroleum hydrocarbons were detected at concentrations well below the Model Toxics Cleanup Act (MTCA) Method A cleanup level (2,000 milligrams per kilogram [mg/kg]) in the stockpile sample and in the west sidewall sample of the UST excavation. Petroleum hydrocarbons were not detected in the north, south, and east sidewall samples of the UST excavation and the fuel line excavation sample. Diesel- and/or lube oil-range hydrocarbons were detected in the two samples collected at the base of the UST excavation at concentrations exceeding the MTCA Method A cleanup levels (2,000 mg/kg).

**CONCLUSIONS**

Removal of a heating oil UST and associated components (fill port, fuel line, and vent pipe) was completed from June 8 to June 11, 2015 in accordance with Ecology regulations and guidance at the 2118 Westlake Avenue parcel of the Subject Property. The UST was discovered during construction activities associated with Subject Property redevelopment. A UST Site Check/Site Assessment completed following tank removal has confirmed a petroleum (diesel- and lube oil-range) release to soil from the former UST. Groundwater was not encountered in the UST excavation during UST removal. Depth to

groundwater is approximately 45 to 50 feet below the petroleum-contaminated soil samples that were collected at the base of the UST excavation. Because the petroleum exceedances are less than two times the soil cleanup level and considering the depth to groundwater, in our opinion it is unlikely that groundwater beneath the Subject Property has been impacted by the release from the heating oil UST. On behalf of Ninth and Lenora LLC (current Subject Property owner), GeoEngineers reported the petroleum release to Ecology on June 12, 2015 (ERTS #657417). Petroleum-contaminated soil at the former UST location will be excavated and removed from the Subject Property during construction excavation planned in the next several weeks. The Subject Property is currently enrolled in Ecology's Voluntary Cleanup Program (VCP); the VCP number for the property is NW2980. GeoEngineers will prepare a Cleanup Action Report following completion of construction activities and will submit the report to Ecology.

## SITE PHOTOS



Preparing to remove the fill port (uphill), fuel supply line, and UST (downhill) in northeast portion of the Subject Property – looking east



Removal of 1,750 gallon diesel UST. A hole is visible near the tank bottom – looking north



Excavation and removal of fuel supply line east of UST – looking southeast



Petroleum-impacted overburden soil stockpile backfilled in UST excavation – looking southeast

## LIMITATIONS

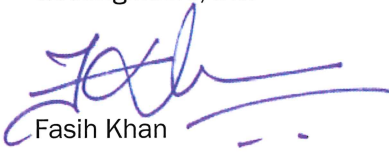
We have prepared this report for the exclusive use of the Ninth and Lenora LLC, their authorized agents and regulatory agencies for evaluation of environmental conditions at the 9<sup>th</sup> and Lenora development

project site located at 2118 Westlake Avenue and 2101 9<sup>th</sup> Avenue in Seattle, Washington. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

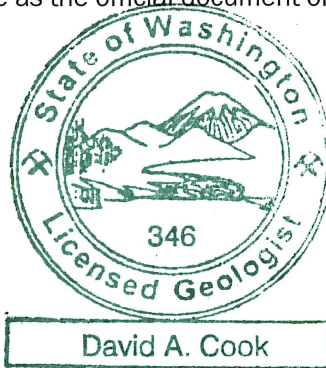
Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Sincerely,  
GeoEngineers, Inc.



Fasih Khan  
Project Engineer



David A. Cook LG, CPG  
Principal

FK:JGR:leh

Attachments:

Figure 1. Vicinity Map

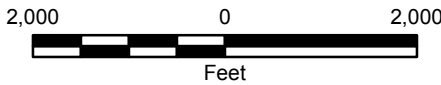
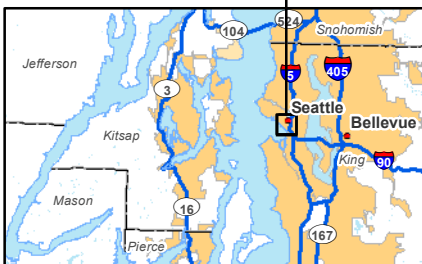
Figure 2. UST Removal Site Plan

Attachment A: Field Procedures

Attachment B: UST Removal Documents

Attachment C: Chemical Analytical Data Reports

One copy submitted to GID Urban Development Acquisitions LLC

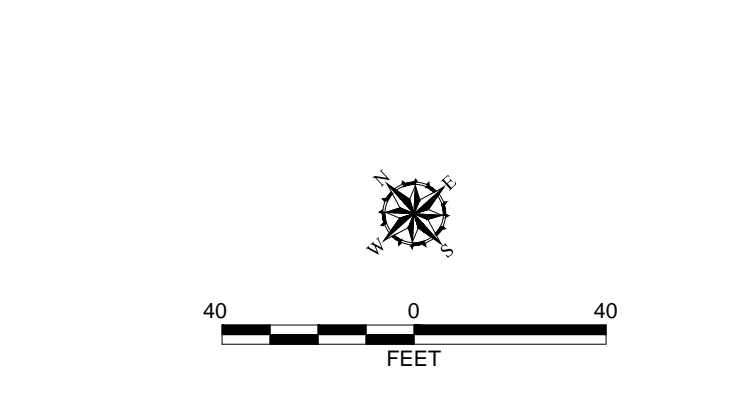
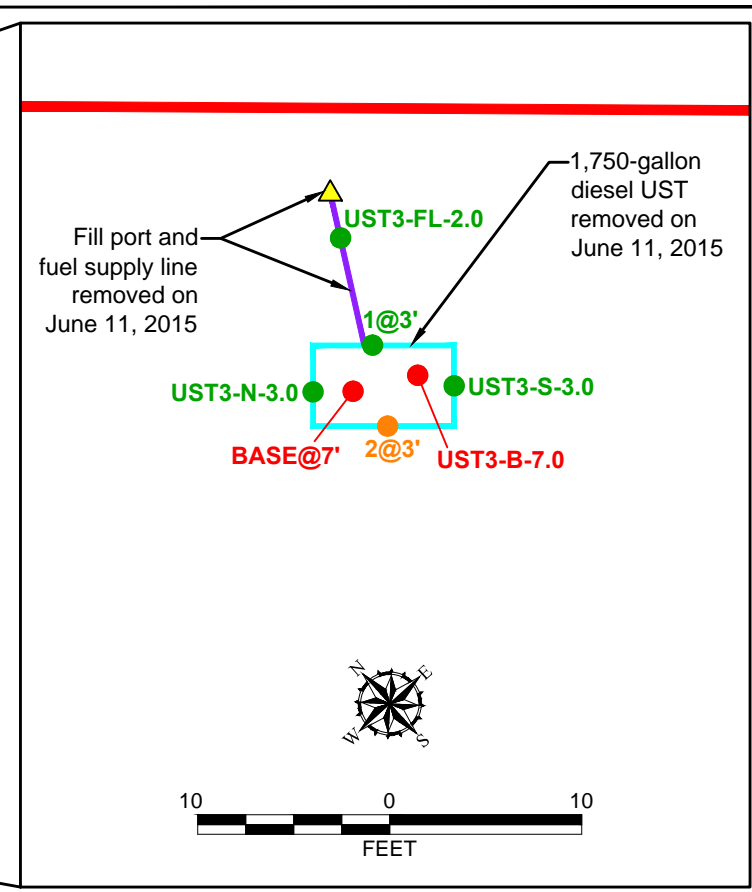


- Notes:
1. The locations of all features shown are approximate.
  2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
  3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps, Street Maps 2005  
 Transverse Mercator, Zone 10 N North, North American Datum 1983  
 North arrow oriented to grid north

<b>Vicinity Map</b>	
9th and Lenora Development Seattle, Washington	
	<b>Figure 1</b>

W:\REDMOND\PROJECTS\21121138001\03\CAD\UST REMOVAL\2113800103\_T700\_UST REMOVAL\_F2 SITE PLAN.DWG\TAB SITE PLAN MODIFIED BY SYI ON JUL 07, 2015 - 14:31



**Notes:**

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

**Legend:**

- Subject Property Boundary
- Confirmation soil sample location with diesel- and/or lube oil-range hydrocarbons concentrations greater than MTCA Method A Cleanup Level.
- Confirmation soil sample location with diesel- and/or lube oil-range hydrocarbons concentrations less than MTCA Method A Cleanup Level.
- Confirmation soil sample location with no detections of diesel- and/or lube oil-range hydrocarbons.

(2101 9TH AVE) Property Address

0660000545 Parcel Number

UST Underground Storage Tank

— Parcel Line

**UST Removal Site Plan**

9th and Lenora Development  
Seattle, Washington

**Figure 2**

**ATTACHMENT A**  
**Field Procedures**

## **ATTACHMENT A FIELD PROCEDURES**

### **UST System Soil Sampling Procedures**

Underground storage tank (UST) and fuel line removal activities were completed by Marine Vacuum Services (Mar-Vac) and CTI Construction (CTI) of Seattle, Washington. A track-mounted excavator was used to remove the UST and associated components.

A GeoEngineers representative and Galloway Environmental, Inc. (Galloway) staff were on site during UST system removal to field screen soil for the presence of petroleum and obtain Site Check/Site Assessment soil samples from the excavation limits for chemical analyses. Soil samples obtained directly from the walls and base of the UST excavation and fuel line trench, or from the excavator bucket, were placed into clean glass sample jars provided by the analytical laboratory. Each sample that was submitted for analysis was identified by a unique sample name that corresponded to its mapped sample location and depth. Sample containers were filled completely to minimize headspace. The remaining portion of each sample was used for field screening. The sampling equipment was decontaminated prior to each use with a Liqui-Nox<sup>®</sup> solution and a distilled water rinse. The samples were placed in an iced cooler pending transport to the analytical laboratory. Chain-of-custody procedures were followed in transporting the samples to the laboratory.

### **Field Screening Of Soil Samples**

Soil samples obtained from the UST and fuel line excavations were screened in the field for evidence of petroleum contamination. Field screening results can be used as a general guideline to delineate areas of potential petroleum-related contamination in soils. In addition, screening results are used to aid in the selection of soil samples for chemical analysis. The screening methods used for this project included: (1) visual examination; (2) water sheen screening; and (3) headspace vapor screening with a photoionization detector (PID).

Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when hydrocarbon concentrations are high. Water sheen screening and headspace vapor screening are more sensitive methods that have been effective in detecting contamination at concentrations less than regulatory cleanup levels.

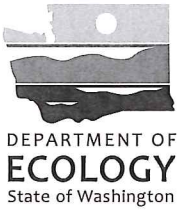
Water sheen screening involves placing soil in a pan of distilled water and observing the water surface for signs of sheen. Sheen screening may detect both volatile and nonvolatile petroleum hydrocarbons. Sheen classifications are as follows:

No Sheen (NS)	No visible sheen on water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly.
Moderate Sheen (MS)	Light to heavy sheen, may have some color/iridescence; spread is irregular to flowing; few remaining areas of no sheen on water surface.

Heavy Sheen (HS)                      Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening involves placing a soil sample in a plastic sample bag. Air is captured in the bag and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a PID is inserted in the bag and the instrument measures the concentration of organic vapor in the air removed from the sample headspace. The PID measures concentrations in parts per million (ppm) and is calibrated to isobutylene. The PID detects organic vapor at concentrations of 1 to 1,000 ppm. Field screening results are site-specific and vary with soil type, soil moisture content, temperature and type of contaminant. The presence or absence of a sheen does not necessarily indicate the presence or absence of petroleum hydrocarbons in the sample.

**ATTACHMENT B**  
**UST Removal Documents**



## SITE CHECK/SITE ASSESSMENT CHECKLIST FOR UNDERGROUND STORAGE TANKS

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

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 #:	NOT REGISTERED	Owner/Operator Name:	NINTH & LENORA LLC
UST ID #:	NOT REGISTERED	Business Name:	NINTH & LENORA LLC
Site Name:	9th & LENORA PROJECT	Address:	2118 WESTLAKE AVENUE
Site Address:	2118 WESTLAKE AVENUE	City:	SEATTLE
City:	SEATTLE	State:	WA
Phone:	NONE	Zip:	98121
		Phone:	206-682-7770 (SELLEN CONST.)
		Email:	NONE
III. CERTIFIED SITE ASSESSOR			
Service Provider Name:	FASIHULLAH KHAN	Company Name:	GEOENGINEERS, INC.
Cell Phone:	206.713.2138	Email:	FKHAN@GEOENGINEERS.COM
		Address:	600 STEWART ST, # 1700
Certification #:	8057 532	Exp. Date:	7/10/2015
		City:	SEATTLE
		State:	WA
		Zip:	98101
IV. TANK INFORMATION			
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST 3	1,750 GALLONS	DIESEL FUEL#2 (HEATING OIL)	6/11/2015
V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)			
<input checked="" type="checkbox"/> Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).			
<input type="checkbox"/> Release investigation following a failed tank and/or line tightness test.			
<input type="checkbox"/> Release investigation following discovery of contaminated soil and/or groundwater.			
<input type="checkbox"/> Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.			
<input type="checkbox"/> UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).			
<input type="checkbox"/> Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.			
<input type="checkbox"/> Other (describe):			

## VI. CHECKLIST

**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  
*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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. A summary of UST system data is provided (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. The soils characteristics at the UST site are described. (Section 5.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is there any apparent groundwater in the tank excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. A brief description of the surrounding land use is provided. (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. The following items are provided in one or more sketches:			
• Location and ID number for all field samples collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• If applicable, groundwater samples are distinguished from soil samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Location of samples collected from stockpiled excavated soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Tank and piping locations and limits of excavation pit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Adjacent structures and streets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Approximate locations of any on-site and nearby utilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Any factors that may have compromised the quality of the data or validity of the results are described.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

## VII. REQUIRED SIGNATURES

*Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360-360 through -395.*

**FASIHULLAH KHAN**

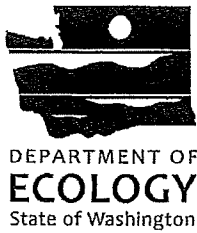
Print or Type Name



Signature of Certified Site Assessor

**6/11/2015**

Date



# UNDERGROUND STORAGE TANK (UST) 30-DAY NOTICE

(See back of form for instructions)

**CALLED IN**

FOR OFFICE USE ONLY

Site ID # \_\_\_\_\_

FS ID # \_\_\_\_\_

Please ✓ the appropriate box:  Intent to Install  Intent to Close

HQ (360)407-7170 / Central (509)575-2490 / Eastern (509)329-3400 / Northwest (425)649-7000 / Southwest (360)407-6300

SITE INFORMATION	OWNER INFORMATION (this form will be returned to this address)
Not registered	UST Owner/Operator
Tag or UBI number	Mailing Address/PO Box
Not registered	City
Site Name	Zip Code
9th & Lenora Project	2101 9th Avenue, Seattle, Wa 98121
Site Physical Address	Owner/Operator Phone Number
2101 9th Avenue, Seattle, Wa 98121	Owner/Operator Email Address
City	
206 682-7770 (Sellen Construction)	
Site Phone Number	

TANK INFORMATION				
Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin	Comments:
1	Diesel fuel	2,000 g	6-11-2015	Reportedly, the 30-day tank decommissioning notice was called in prior to by contractor or other consultant prior to this notice being filled out.

### 1) SERVICE PROVIDER INFORMATION - check the appropriate boxes

PLEASE NOTE: INDIVIDUALS PERFORMING UST SERVICES MUST BE ICC CERTIFIED OR HAVE PASSED ANOTHER QUALIFYING EXAM APPROVED BY THE DEPARTMENT OF ECOLOGY.

Installer  Decommissioner  Site Assessor

Cert. #0878867-U2 and #0878867-U7

Service Provider Company Name: galloway Environmental, Inc. Contact Person: Gary Galloway

Certified Service Provider Name: Gary Galloway, Contact Phone Number: 425 688 8852. gallowaye@comcast.net

ICC Certification # \_\_\_\_\_ Contact Email Address \_\_\_\_\_

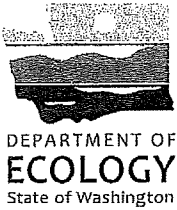
### 2) SERVICE PROVIDER INFORMATION (REQUIRED IF USING MORE THAN ONE PROVIDER) - check the appropriate boxes

Installer  Decommissioner  Site Assessor

Service Provider Company Name \_\_\_\_\_ Contact Person \_\_\_\_\_

Certified Service Provider Name \_\_\_\_\_ Contact Phone Number \_\_\_\_\_

ICC Certification # \_\_\_\_\_ Contact Email Address \_\_\_\_\_



## PERMANENT CLOSURE NOTICE FOR UNDERGROUND STORAGE TANKS

UST ID #:   ?  

County:   King  

*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.*

I. UST FACILITY			II. OWNER/OPERATOR INFORMATION			
Facility Compliance Tag #:			Owner/Operator Name:			
UST ID #: <b>not registered</b>			Business Name: <b>9th &amp; Lenora Project</b>			
Site Name: <b>9th &amp; Lenora Project</b>			Address: <b>2101 9th Avenue</b>			
Site Address: <b>2101 9th Avenue</b>			City: <b>Seattle</b>		State: <b>WA</b>	Zip: <b>98121</b>
City: <b>Seattle</b>			Phone: <b>206-682-7770 (Sellen Construction)</b>			
Phone: <b>none</b>			Email:			
III. CERTIFIED UST DECOMMISSIONER						
Company Name: <b>Galloway Environmental, Inc.</b>			Service Provider Name: <b>Gary Galloway</b>			
Address: <b>3102 220th PL SE</b>			Certification Type: <b>IFCI UST Decommissioning</b>			
City: <b>Sammamish</b>		State: <b>WA</b>		Zip: <b>98075</b>		Exp. Date: <b>6/4/2017</b>
Provider Phone: <b>425-688-8852</b>			Provider Email: <b>gary@gallowayenvironmental.com</b>			
Provider Signature:			Date: <b>June 26, 2015</b>			
IV. TANK INFORMATION						
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
1	2,000 gallons	diesel	x <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6/11/2015
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
V. REQUIRED SIGNATURE						
<i>Signature acknowledges UST(s) comply with UST regulation WAC 173-360-380 Temporary Closure Requirements.</i>						
Date	Signature of Tank Owner/Operator or Authorized Representative			Print or Type Name		

**MARINE VACUUM SERVICE, INC.**

**UNDERGROUND STORAGE TANK TRIPLE RINSE CERTIFICATE**

Tank Size: 6000 GALLONS

Tank Location: 2101 9<sup>th</sup> Ave  
SEATTLE

Marine Vacuum Service, Inc. certifies that the above mentioned tank(s) have been triple rinsed in accordance with the industry standard and that all rinsate has been disposed of in accordance with Federal, State and Local regulations.

Tank Owner: 9<sup>th</sup> AND LINDORA LLC

Sub-Contractor: AMEC FOSTER WHEELER

M.V.S. Representative: Sakha

Date: 6-11-15

Notes:

Survey Requested by MARVAC Vessel Owner or Agent 9th & Lenora LLC Date 11 JUN 15  
 Vessel UST Type of Vessel UST Specific Location of Vessel 9th & Lenora  
 Last Three (3) Loadings Diesels X 3 Tests Performed VISUAL O2 Time Survey Completed 1030

~ 2000 GAL ~~DIESEL~~ DIESEL UST CET Inerted with CO<sub>2</sub>  
 (O<sub>2</sub> < 6.0%)  
 SAFE FOR LIMITED HOT WORK  
 LIMITATIONS:  
 ① POST FIRE WATCH  
 ② MAY USE ABRASIVE SAW TO REMOVE 4 INCH RILL PIPE  
 ③ MAY RIP OR ABRASIVE SAW OUT THE SMALLER VENT & PRODUCT LINES FROM THE TANK

ALPHA; DCU S/N SK102-00546/CAC0630-11JUN15

In the event of physical or atmospheric changes affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, this certificate is voided; spaces not listed on the Certificate are not to be entered unless authorized on another Certificate and/or maintained in accordance with OSHA 29 CFR 1915; or if in any doubt, immediately stop all work and contact the Undersigned Marine Chemist. Unless otherwise stated on the Certificate, all spaces and affected adjacent spaces are to be reinspected daily or more often as necessary by the competent person in support of work prior to entry or recommencement of work.

QUALIFICATIONS: Transfer of ballast, cargo, fuel, or manipulation of valves or closure equipment tending to alter conditions in pipelines, tanks, or compartments subject to gas accumulation, unless specifically approved on this Certificate, requires inspection and a new Certificate for spaces so affected. All lines, vents, heating coils, valves, and similar enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated. Movement of the vessel from its specific location voids the Certificate unless shifting of the vessel within the facility has been specifically authorized on this Certificate.

STANDARD SAFETY DESIGNATIONS: (partial list, paraphrased from NFPA 306, Subsections 4.3.1 through 4.3.6).  
 ATMOSPHERE SAFE FOR WORKERS: In the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent and not greater than 22 percent by volume; (b) the concentration of flammable materials is below 10 percent of the lower explosive limit; (c) any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, inerting mediums, or fumigants are within permissible concentrations at the time of the inspection.  
 NOT SAFE FOR WORKERS: In the compartment or space so designated, entry is not permitted.

ENTER WITH RESTRICTIONS: In the compartment or space so designated, entry for work is permitted only if conditions of proper protective equipment, or clothing, or time, or all of the aforementioned, as appropriate, are as specified.

SAFE FOR HOT WORK: In the compartment or space so designated (a) the oxygen content of the atmosphere is not greater than 22 percent by volume; (b) the concentration of flammable materials in the atmosphere is less than 10 percent of the lower explosive limit; (c) the residues, scale, or preservative coatings are cleaned sufficiently to prevent the spread of fire and are not capable of producing a higher concentration than permitted by (a) or (b); (d) all adjacent spaces, containing or having contained flammable or combustible materials shall be sufficiently cleaned of residues, scale, or preservative coatings to prevent the spread of fire, or they are inerted. Ship's fuel tanks, tube tanks, or engine room or fire room bilges, or other machinery spaces, are treated in accordance with the Marine Chemist's requirements.

SAFE FOR LIMITED HOT WORK: In the compartment or space so designated (a) portions of the space meet the requirements for Safe for Hot Work and Partial Cleaning, as applicable, or (b) the space is inerted, adjacent spaces meet the requirements for Safe for Hot Work, and hot work is restricted to specific locations; (c) portions of the space shall meet the requirements for Safe for Hot Work, as applicable, and the nature or type of hot work is limited or restricted.  
 NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

CHEMISTS ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under NFPA 306 and understands conditions and limitations under which it was issued, and the requirements for maintaining its validity."  
 Signed [Signature] Company GALLANT ENV. Date 11 JUN 15 Signed [Signature] Marine Chemist #688  
 This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

THUR 06/11/15  
1PM JK

RECEIVED  
JUN 10 2015  
PERMIT SECTION



Your  
Seattle  
Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 Commercial Tank Removal/Decommissioning

Permit Fee: \$208.00 \$218-

Date Issued: 6/11/2015

Tank(s) must be removed from site on the same day as permit is issued!

TO BE COMPLETED BY PERMIT APPLICANT

FIRM NAME	MARINE VACUUM SERVICE, INC.		
MAILING ADDRESS	P. O. BOX 24263	SUITE	
CITY	SEATTLE	STATE	WA ZIP 98124
JOBSITE ADDRESS	2121 9TH AVENUE SEATTLE, WA 98121		
CONTACT PERSON	MIKE SCHIRMER	PHONE NUMBER	(206) 255-8174
Number of Tank(s):	1	Tank Size(s):	1,000
Product(s) Previously Contained:	HEATING OIL		<input type="checkbox"/> Aboveground tank
			<input checked="" type="checkbox"/> Underground tank
<input checked="" type="checkbox"/>	Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)		
<input type="checkbox"/>	Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)		
Hot work being conducted:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (If yes, a separate hot work permit is required)	

Permit applications may be submitted in person weekdays from 8:00 a.m. to 5:00 p.m., or mailed to:

Seattle Fire Department  
Fire Marshal's Office - Permits  
220 Third Ave S, 2<sup>nd</sup> Floor  
Seattle, WA 98104-2608

To pay with a Visa or Master Card: Fax or email this application  
**THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT**  
Tel: (206) 386-1450 / Fax: (206) 386-1348  
E-mail: [permits@seattle.gov](mailto:permits@seattle.gov)

**Call 386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.**  
**TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION**  
**NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!**

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, federal, state and local regulations. **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

Special permit conditions: Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)

OK FOR TANK REMOVAL

FMO USE:	4716061015	APPROVED BY:	JOHN LAUDORBACK	SFD ID#	1077
Check No.:	5-247538	Inspector:	CRAIG	Certificate #	608
Receipt No.:	101426	Name of Marine/Chemist:			
Application ID#:		Date:	6/11/2015		

**ATTACHMENT C**  
**Chemical Analytical Data Reports**

FRIEDMAN & BRUYA, INC.

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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

June 11, 2015

Chelsea Jefferson, Project Manager  
AMEC Foster Wheeler  
One Union Square  
600 University Street, Suite 600  
Seattle, WA 98101

Dear Ms. Jefferson:

Included are the results from the testing of material submitted on June 8, 2015 from the 9th and Lenora, F&BI 506186 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  
c: John Long  
GMX0611R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 8, 2015 by Friedman & Bruya, Inc. from the AMEC Foster Wheeler 9th and Lenora, F&BI 506186 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>AMEC Foster Wheeler</u>
506186 -01	HOT_HCID

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/15  
Date Received: 06/08/15  
Project: 9th and Lenora, F&BI 506186  
Date Extracted: 06/08/15  
Date Analyzed: 06/08/15

**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 56-165)
HOT_HCID 506186-01 1/200	ND	D	ND	ip
Method Blank 05-1067 MB	ND	ND	ND	110

ND - Material not detected at or above 4,000 mg/kg gas, 10,000 mg/kg diesel and 50,000 mg/kg heavy oil.

# FRIEDMAN & BRUYA, INC.

## 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.
- 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 - 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.





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 17, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-0  
Laboratory Reference No. 1506-134

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on June 12, 2015.

**Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.**

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

Date of Report: June 17, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-134  
Project: 21138-001-0

### **Case Narrative**

Samples were collected on June 11, 2015 and received by the laboratory on June 12, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: June 17, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-134  
Project: 21138-001-0

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST3-N-3.0	06-134-01	Soil	6-11-15	6-12-15	
UST3-S-3.0	06-134-02	Soil	6-11-15	6-12-15	
UST3-B-7.0	06-134-03	Soil	6-11-15	6-12-15	
UST3-FL-2.0	06-134-04	Soil	6-11-15	6-12-15	

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UST3-B-7.0</b>					
Laboratory ID:	06-134-03					
Diesel Fuel #2	<b>2300</b>	29	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil	<b>1400</b>	58	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST3-N-3.0</b>					
Laboratory ID:	06-134-01					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				
<b>Client ID:</b>	<b>UST3-S-3.0</b>					
Laboratory ID:	06-134-02					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	57	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				
<b>Client ID:</b>	<b>UST3-FL-2.0</b>					
Laboratory ID:	06-134-04					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612S2					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>101</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-130-26							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				79	74	50-150		

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612S3					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-124-01							
	ORIG	DUP						
Diesel Fuel #2	<b>5600</b>	<b>5390</b>	NA	NA	NA	NA	4	NA
Lube Oil	<b>1520</b>	<b>1490</b>	NA	NA	NA	NA	2	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				92	90	50-150		

Date of Report: June 17, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-134  
Project: 21138-001-0

### % MOISTURE

Date Analyzed: 6-12&16-15

Client ID	Lab ID	% Moisture
UST3-N-3.0	06-134-01	11
UST3-S-3.0	06-134-02	12
UST3-B-7.0	06-134-03	14
UST3-FL-2.0	06-134-04	10

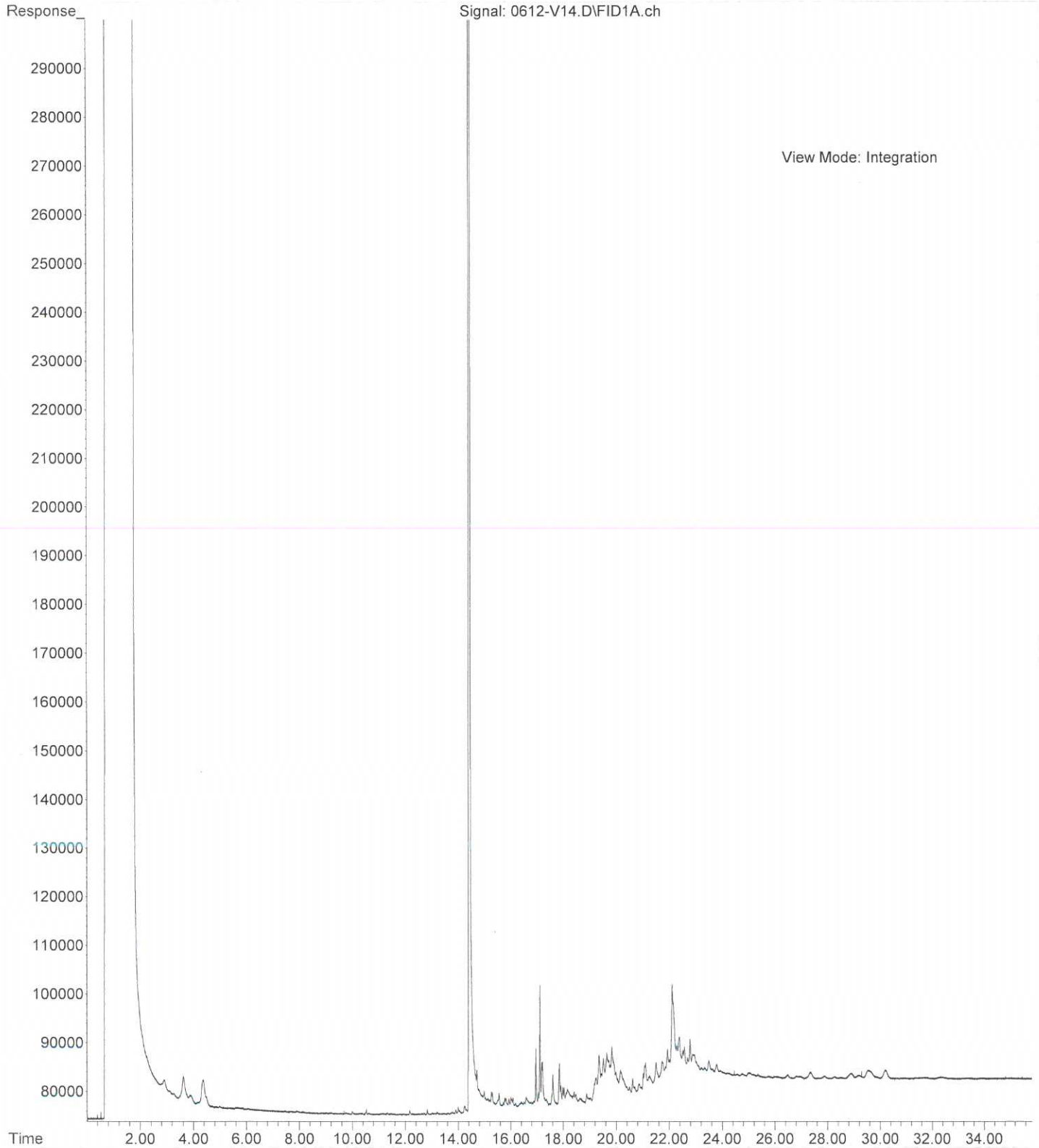


### Data Qualifiers and Abbreviations

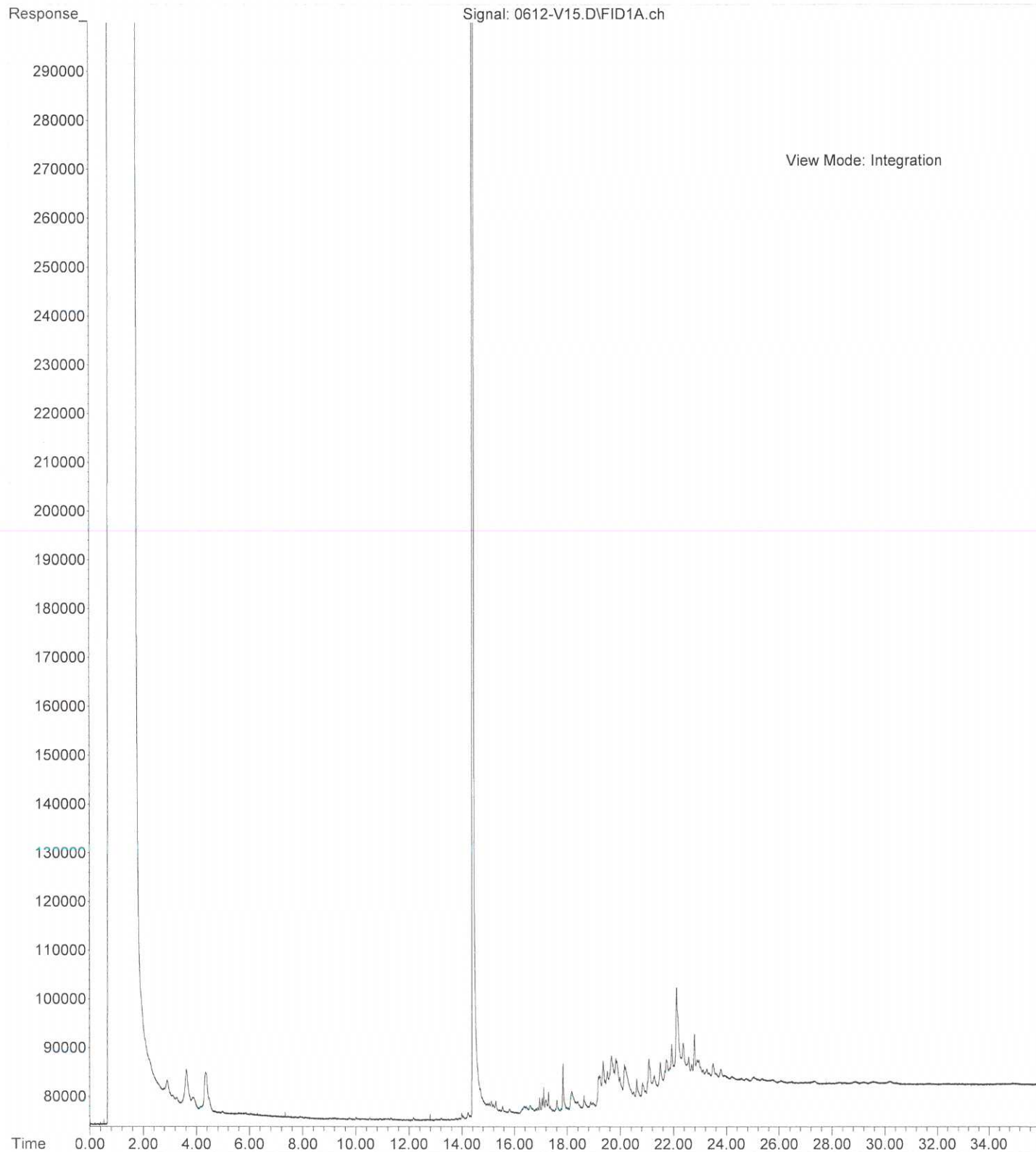
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



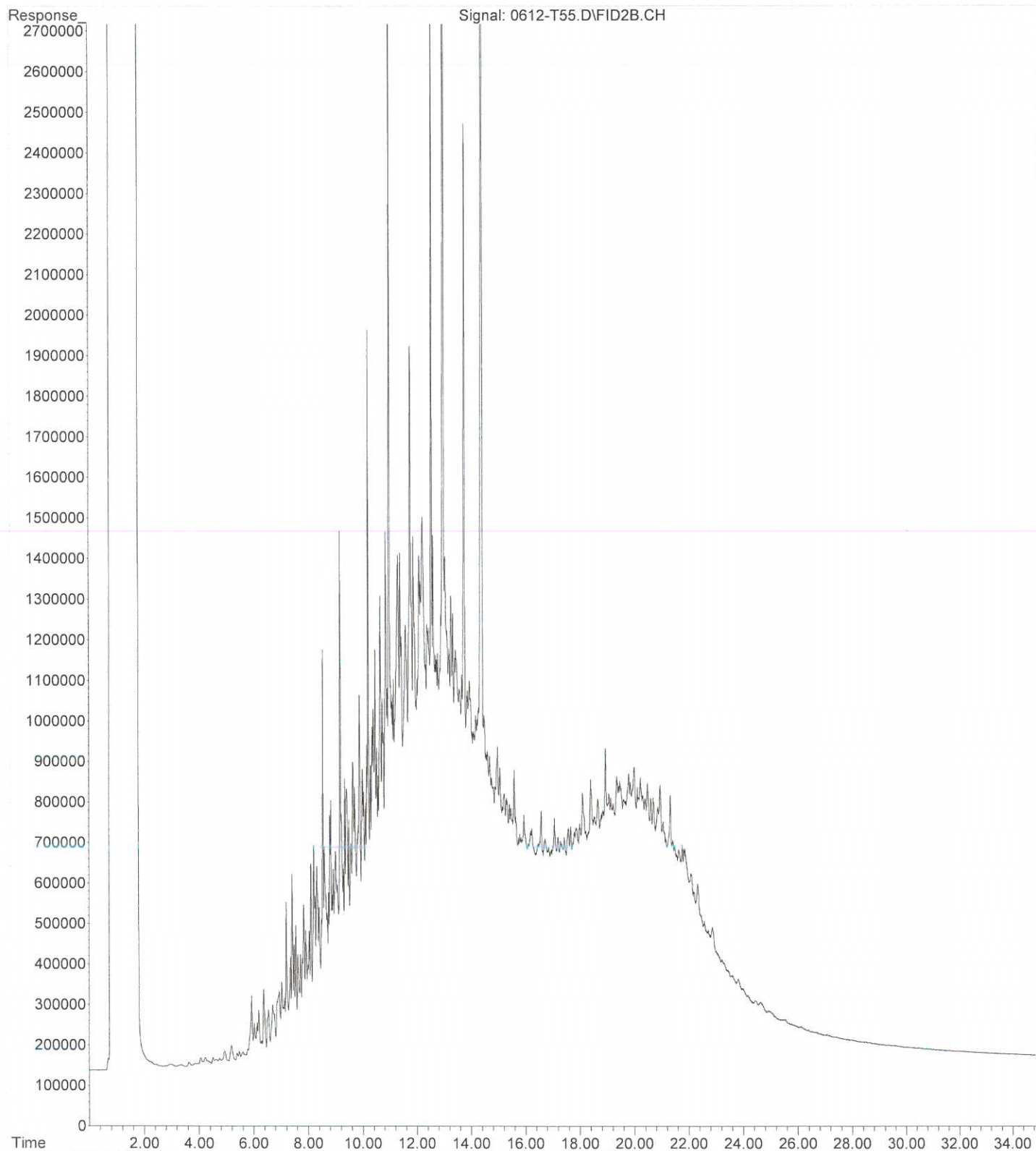
File :X:\DIESELS\VIGO\DATA\V150612\0612-V14.D  
Operator :  
Acquired : 12 Jun 2015 19:05 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 06-134-01  
Misc Info :  
Vial Number: 14



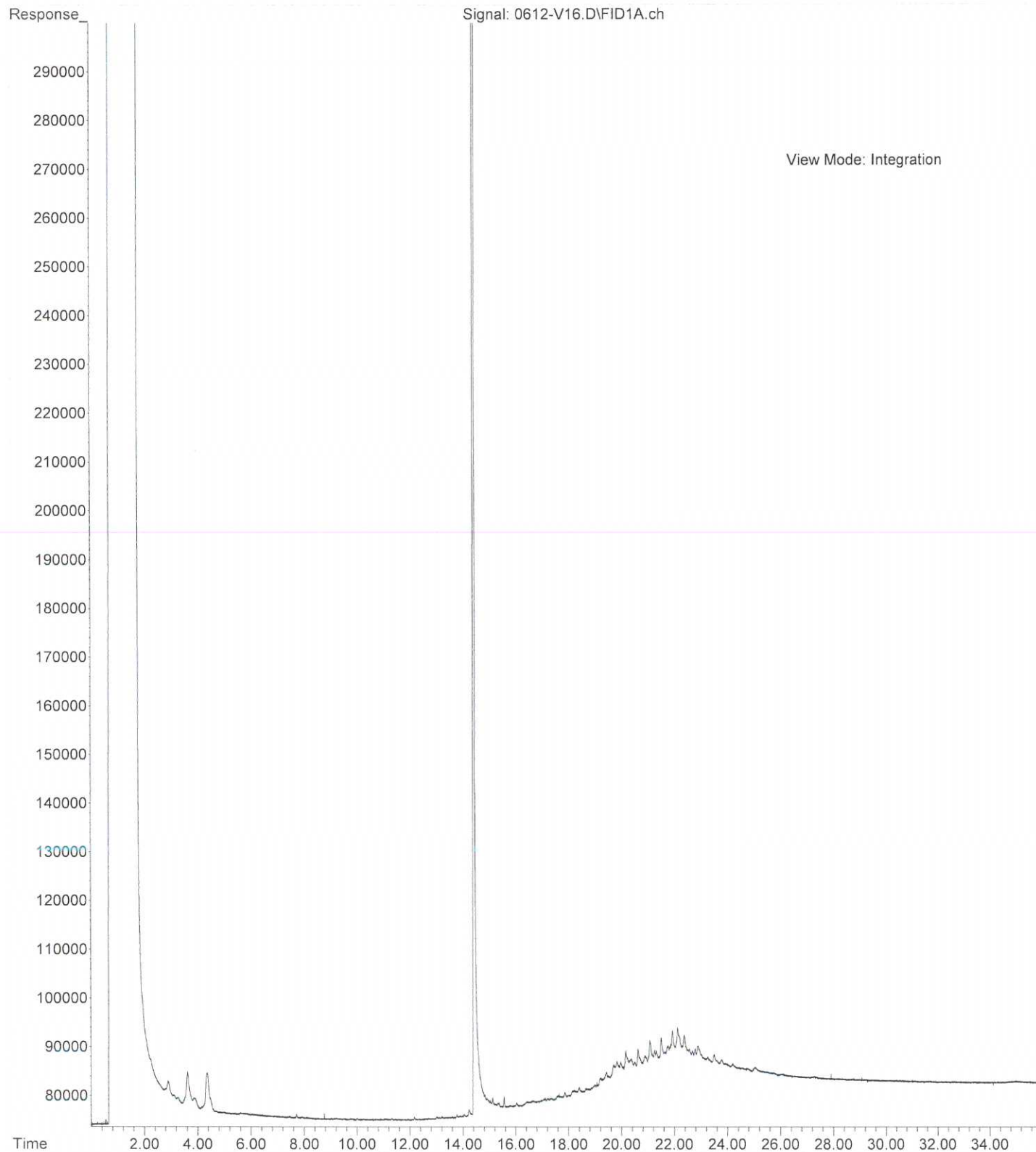
File :X:\DIESELS\VIGO\DATA\V150612\0612-V15.D  
Operator :  
Acquired : 12 Jun 2015 19:47 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 06-134-02  
Misc Info :  
Vial Number: 15



File :C:\msdchem\1\DATA\T150612.SEC\0612-T55.D  
Operator : ZT  
Acquired : 12 Jun 2015 12:57 using AcqMethod T150310F.M  
Instrument : Teri  
Sample Name: 06-134-03  
Misc Info :  
Vial Number: 55



File :X:\DIESELS\VIGO\DATA\V150612\0612-V16.D  
Operator :  
Acquired : 12 Jun 2015 20:28 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 06-134-04  
Misc Info :  
Vial Number: 16





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 23, 2015

Gary Galloway  
Galloway Environmental, Inc.  
3102 220<sup>th</sup> Place SE  
Sammamish, WA 98075

Re: Analytical Data for Project 35015  
Laboratory Reference No. 1506-133

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on June 12, 2015.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DB' followed by a flourish.

David Baumeister  
Project Manager

Enclosures

Date of Report: June 23, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-133  
Project: 35015

### Case Narrative

Samples were collected on June 11, 2015 and received by the laboratory on June 12, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### BTEX by EPA 8021B Analysis

Method 5035A VOA vials were not provided. The samples were therefore extracted from 4-ounce jars. Some loss of volatiles may have occurred.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 23, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-133  
 Project: 35015

**BTEX  
 EPA 8021B**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>1 @ 3'</b>					
Laboratory ID:	06-133-01					
Benzene	ND	0.020	EPA 8021B	6-17-15	6-18-15	
Toluene	ND	0.063	EPA 8021B	6-17-15	6-18-15	
Ethyl Benzene	ND	0.063	EPA 8021B	6-17-15	6-18-15	
m,p-Xylene	ND	0.063	EPA 8021B	6-17-15	6-18-15	
o-Xylene	ND	0.063	EPA 8021B	6-17-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	77	68-123				
<b>Client ID:</b>	<b>2 @ 3'</b>					
Laboratory ID:	06-133-02					
Benzene	ND	0.020	EPA 8021B	6-17-15	6-18-15	
Toluene	ND	0.071	EPA 8021B	6-17-15	6-18-15	
Ethyl Benzene	ND	0.071	EPA 8021B	6-17-15	6-18-15	
m,p-Xylene	ND	0.071	EPA 8021B	6-17-15	6-18-15	
o-Xylene	ND	0.071	EPA 8021B	6-17-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	84	68-123				
<b>Client ID:</b>	<b>Base @ 7'</b>					
Laboratory ID:	06-133-03					
Benzene	ND	0.020	EPA 8021B	6-17-15	6-18-15	
Toluene	ND	0.067	EPA 8021B	6-17-15	6-18-15	
Ethyl Benzene	ND	0.067	EPA 8021B	6-17-15	6-18-15	
m,p-Xylene	ND	0.067	EPA 8021B	6-17-15	6-18-15	
o-Xylene	ND	0.067	EPA 8021B	6-17-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	84	68-123				
<b>Client ID:</b>	<b>STK PL</b>					
Laboratory ID:	06-133-04					
Benzene	ND	0.020	EPA 8021B	6-17-15	6-18-15	
Toluene	ND	0.078	EPA 8021B	6-17-15	6-18-15	
Ethyl Benzene	ND	0.078	EPA 8021B	6-17-15	6-18-15	
m,p-Xylene	ND	0.078	EPA 8021B	6-17-15	6-18-15	
o-Xylene	ND	0.078	EPA 8021B	6-17-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	81	68-123				

Date of Report: June 23, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-133  
 Project: 35015

**BTEX  
 EPA 8021B  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0617S1					
Benzene	ND	0.020	EPA 8021B	6-17-15	6-18-15	
Toluene	ND	0.050	EPA 8021B	6-17-15	6-18-15	
Ethyl Benzene	ND	0.050	EPA 8021B	6-17-15	6-18-15	
m,p-Xylene	ND	0.050	EPA 8021B	6-17-15	6-18-15	
o-Xylene	ND	0.050	EPA 8021B	6-17-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	79	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-133-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				77	78	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0617S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.792	0.876	1.00	1.00	79	88	75-117	10	13
Toluene	0.809	0.880	1.00	1.00	81	88	78-118	8	12
Ethyl Benzene	0.816	0.888	1.00	1.00	82	89	78-118	8	12
m,p-Xylene	0.823	0.891	1.00	1.00	82	89	78-121	8	13
o-Xylene	0.824	0.909	1.00	1.00	82	91	77-119	10	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					81	88	68-123		

Date of Report: June 23, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-133  
 Project: 35015

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>1 @ 3'</b>					
Laboratory ID:	06-133-01					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	6-18-15	6-18-15	
Lube Oil Range Organics	<b>ND</b>	59	NWTPH-Dx	6-18-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>93</i>	<i>50-150</i>				
<b>Client ID:</b>	<b>2 @ 3'</b>					
Laboratory ID:	06-133-02					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	6-18-15	6-18-15	
Lube Oil Range Organics	<b>100</b>	61	NWTPH-Dx	6-18-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>112</i>	<i>50-150</i>				
<b>Client ID:</b>	<b>Base @ 7'</b>					
Laboratory ID:	06-133-03					
Diesel Fuel #2	<b>3800</b>	31	NWTPH-Dx	6-18-15	6-18-15	
Lube Oil	<b>2300</b>	62	NWTPH-Dx	6-18-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>136</i>	<i>50-150</i>				
<b>Client ID:</b>	<b>STK PL</b>					
Laboratory ID:	06-133-04					
Diesel Range Organics	<b>44</b>	32	NWTPH-Dx	6-18-15	6-18-15	N
Lube Oil	<b>180</b>	64	NWTPH-Dx	6-18-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>88</i>	<i>50-150</i>				

Date of Report: June 23, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-133  
 Project: 35015

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0618S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	6-18-15	6-18-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	6-18-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>125</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-144-01							
	ORIG	DUP						
Diesel Fuel #1	<b>764</b>	<b>670</b>	NA	NA	NA	NA	13	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				<i>96</i>	<i>94</i>	<i>50-150</i>		

Date of Report: June 23, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-133  
Project: 35015

### % MOISTURE

Date Analyzed: 6-18-15

Client ID	Lab ID	% Moisture
1 @ 3'	06-133-01	15
2 @ 3'	06-133-02	18
Base @ 7'	06-133-03	20
STK PL	06-133-04	22



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference

