

March 31, 2015

Mr. Eran Fields Fields Holdings, LLC 3954 Hopevale Drive Sherman Oaks, CA 91403

#### RE: Baseline Environmental Assessment Report Chevron Station No. 9-0129 4700 Brooklyn Avenue Northeast Seattle, Washington 98105 RGI Project No. 2015-006A

Dear Mr. Fields:

The Riley Group, Inc. (RGI) has performed a Baseline Environmental Assessment (BEA) on the property located at 4700 Brooklyn Avenue Northeast in Seattle, Washington (herein referred to as the Site, Figure 1).

The Site consists of King County tax parcel 8816400985 and is currently owned by WASU Inc. The Site is currently occupied by a Chevron gasoline service station and convenience store. The current fuel system was installed on the Site in 1991. The USTs associated with this system consist of two double-wall 12,000-gallon gasoline USTs and one double-wall 12,000gallon diesel UST situated on the southwestern portion of the Site and four dispenser islands situated on the west-central portion of the Site. The UST system also contains spill buckets and leak detection and product piping is double walled. The USTs were upgraded to comply with regulatory requirements in 1998.

RGI understands that Fields Holdings, LLC (hereafter referred to as the Client) intends to purchase the Site and redevelop the Site as a residential housing complex with one to two levels of underground parking. RGI also understands that Chevron (former owner) is liable for cleanup costs associated with contamination occurring prior to 2003 on the Site. Since 2003, the Site has been owned by Bedrock Northwest, H&S Oil, LLC and the current owner, WASU Inc, who has owned the Site since April 3, 2007.

This BEA was performed at the request of Fields Holdings, LLC to evaluate whether or not a release has occurred on the Site since Chevron's ownership in 2003 and to perform a cursory evaluation of potential adverse impacts to soil and/or groundwater from five different historical service stations. The scope of work for this project was performed in accordance with our *Baseline Environmental Assessment Proposal* dated February 9, 2015, which was authorized by Mr. Eran Fields of Fields Holdings, LLC on February 12, 2015.

#### **PROJECT BACKGROUND**

RGI reviewed numerous previous environmental reports and provided a brief summary of the Site history in our *Baseline Environmental Assessment Proposal* dated February 9, 2015. The

Tacoma, Washington Phone 253.565.0552 Corporate Office 17522 Bothell Way Northeast Bothell, Washington 98011 Phone 425.415.0551 ◆Fax 425.415.0311 Kennewick, Washington Phone 509.586.4840

www.riley-group.com

reader is directed to refer to this document for details. Pertinent historical features, including previous gas station configurations are illustrated on Figure 2.

#### SCOPE OF SERVICES

The scope of services performed for this project included the following tasks:

- Performed public and private utility locating to identify the locations of buried metallic utility lines prior to drilling.
- Performed a visual site inspection to locate existing USTs, which included scanning suspect UST locations with a magnetometer.
- Retained the services of Evergreen Concrete Cutting, Inc. to core concrete in test probe locations P2, P3, and P4.
- Retained the services of a La Velle Vac & Drainage, LLC to vacuum excavate soil in test probe locations P2, P3, and P4 to five feet below ground surface (bgs) to ensure that no product piping was present.
- Advanced 9 test probes across the Site using direct push drilling techniques.
- Collected soil and groundwater grab samples from test probe locations and submitted select soil and groundwater grab samples to the laboratory for analyses deemed appropriate for a given area.
- Compared analytical results from soil and groundwater grab samples to Model Toxics Control Act (MTCA) Method A soil and groundwater cleanup levels.
- Prepared this report presenting the findings and conclusions pertaining to the Baseline Environmental Assessment.

#### **REGULATORY FRAMEWORK**

Washington's hazardous waste cleanup law, the Model Toxics Control Act (Chapter 70.105D RCW), mandates the necessity for site cleanups to protect human health and the environment. The MTCA Cleanup Regulation (Chapter 173-340 WAC) defines the approach for establishing cleanup requirements for individual sites, including the establishment of cleanup standards and selection of cleanup actions.

The MTCA Cleanup Regulation provides three options for establishing generic and site-specific cleanup levels for soil and groundwater. Method A cleanup levels have been adopted for specific purposes and are intended to provide conservative cleanup levels for sites undergoing routine site characterization or cleanup actions or those sites with relatively few hazardous substances. Method B and C cleanup levels are set using a site risk assessment, which focus on the use of "reasonable maximum exposure" assumptions based on site-specific characteristics and toxicity of the contaminants of concern.

For purposes of comparison, analytical laboratory data for this project were compared to MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses and MTCA Method A Cleanup Levels for Ground Water (considered protective of drinking water).



#### BASELINE ENVIRONMENTAL ASSESSMENT

Baseline Environmental Assessment activities were performed on the Site on February 24, 2015. Details pertaining to the BEA are discussed below and pertinent features pertaining to these investigations are illustrated on Figures 2 to 4.

#### **Pre-Subsurface Investigation Activities**

At least 48 hours prior to commencing our subsurface investigation, RGI contacted One-Call to locate known public underground utilities on the Site. Public underground utilities located included electric, natural gas, telecommunications, water, sewer, and cable. In addition, RGI reviewed available sanitary sewer cards and retained the services of Bravo Environmental (Bravo), private utility locator, to locate privately owned utilities.

During this time, RGI also performed a visual inspection of the Site in an attempt to identify any USTs associated with historical gasoline services stations. Bravo also scanned suspected UST locations near the southeastern portion of the Site building and the far southwestern portion of the Site with a magnetometer. One UST was identified near the southeastern corner of the building. The size and orientation of the UST is unknown. However, this UST is suspected to be the 550-gallon waste oil UST identified in Archived King County Assessor records.

RGI also retained the services of Evergreen Concrete Cutting, Inc. to core 10-inch diameter concrete cores in locations of test probes P2, P3, and P4.

La Velle was retained to vacuum excavate soil to a depth of five feet bgs using an air knife in these locations to ensure that no product piping or other underground lines were present. Soils encountered in the upper five feet generally consisted of sand in locations P2 and P4 and pea gravel in location P3. It should be noted that during vacuum excavation of P3, product piping lines and suspect AS/SVE system lines were observed, which were avoided during drilling. Product lines were situated approximately 3 feet bgs.

#### Subsurface Investigation

On February 24, 2015, nine test probes (P1 through P9) were advanced to depths ranging from approximately 5 to 22 feet below ground surface (bgs). Test probes were advanced using a track-mounted, direct push test probe rig (7730DT) and soil was sampled continuously during drilling.

The rationale for test probe locations was as follows:

- Test probes P1 was advanced to approximately 22 feet bgs on the northern portion of the Site to determine the northern extent of known groundwater impacts.
- Test Probes P2, P3, P4, P6, and P7 were advanced to depths between approximately 10 and 19 feet bgs in the vicinity of the current USTs and pump islands in order to determine if a recent release to soil or groundwater had occurred in these locations.
- Test Probe P8 was relocated from the original location of P9 after a suspected waste oil UST was identified near the southeastern corner of the building. P8 was advanced to a depth of approximately 19 feet bgs in the vicinity and down-gradient of the UST to determine if a release to determine if a release to soil or groundwater had occurred in this location.



It should be noted that test probe P5 was only advanced to 5 feet bgs due to time constraints.

#### **Subsurface Conditions**

Soil conditions encountered were described using the Unified Soil Classification System (USCS).

Subsurface soils encountered during drilling generally consisted of sand with varying amounts of silt. Pea gravel was observed in test probe locations P3, P5, P6 and P7 from the surface to approximately 5 feet bgs. Groundwater was encountered in test probes at depths between approximately 16 to 18 feet bgs. Test probe logs describing subsurface conditions are included in Appendix A.

#### **Soil Sampling**

In general, a relatively continuous soil core was retrieved for each five foot sampling interval. Discrete soil samples were collected at approximately 5-foot intervals (except in cases where there was too little recovery) from each test probe, inspected, and field screened for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID) and/or water sheen test. Evidence of soil contamination was observed in test probes P4 and P6.

A total of 28 soil samples were collected and all soil samples displaying evidence of potential contamination were selected for laboratory analyses. Additionally, samples collected from approximately five feet bgs in the vicinity of pump islands and product piping were selected for laboratory analyses.

#### Groundwater Grab Sampling

Groundwater grab samples were collected from test probe locations P1 and P8. The groundwater samples were collected through a 3/4-inch-diameter temporary well screen down the hole using a peristaltic pump and disposable plastic tubing under low-flow conditions.

Groundwater grab samples may not be representative of groundwater conditions or quality (due to the increased sample turbidity associated with the sampling method). To obtain samples that are definitively representative of groundwater would require the installation, development, and sampling of groundwater monitoring wells, which is not the objective of this study. The objective of this study was to determine whether, and in relative terms, groundwater has been adversely affected by the potential contaminants of concern. Groundwater grab sampling will satisfy this project objective as well as provide useful information regarding potential groundwater monitoring well locations, should they be required.

#### Sampling Protocols

All samples were collected in accordance with our standard operating and decontamination procedures. Prior to advancing each test probe and between each sampling attempt, the sampling equipment and sampling tools were decontaminated by washing in an aqueous detergent solution consisting of a non-phosphate detergent and potable water, and then rinsing with potable water. Samples were placed in preconditioned, sterilized containers provided by an Ecology-accredited analytical laboratory. Soil samples collected for VOC analysis were collected using the Environmental Protection Agency's Method 5035 sampling



methodology. The samples were placed in a chilled cooler throughout the field program, with all subsequent transportation and transfer accomplished in strict accordance with RGI's chainof-custody procedures.

Analytical test certificates, including quality control, data, and chain-of-custody documentation for all samples submitted to the analytical testing laboratory by RGI as part of this Phase BEA are included in Appendix B.

#### Site Restoration

All test probe locations were properly decommissioned with hydrated bentonite chips in accordance with Ecology regulations.

Pea gravel excavated around the product lines were re-used and manually placed beneath and surrounding exposed utilities and product lines.

Concrete cored in the location of the pump islands and test probe holes were sealed with ready mix concrete to match existing grade.

#### **ANALYTICAL LABORATORY ANALYSIS**

A total of 9 soil samples and two groundwater grab samples were submitted to Friedman & Bruya, Inc (FBI), an Ecology accredited laboratory, for analysis of potential contaminants of concern (PCOCs) using one or more of the following analyses:

- Gasoline Total Petroleum Hydrocarbons (TPH) using Northwest Test Method NWTPH-Gx.
- Diesel- and oil-range TPH using Northwest Test Method NWTPH-Dx with and without silica gel cleanup (to remove naturally occurring biogenic material).
- Benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Test Method 8021B or 8260C.
- > VOCs and/or Halogenated VOCs (HVOCs) using EPA Test Method 8260C.
- > Total lead (Pb) using EPA Method 200.8.

Copies of analytical laboratory reports and associated sample chain-of-custody forms are included in Appendix B.

### Soil Analytical Results

Analytical results for soil samples and MTCA Method A Soil Cleanup Levels are summarized in Table 1 and depicted graphically on Figure 3.

A total of nine soil samples were submitted for analyses from the six test probes (P2, P3, P4, P6, P7, and P8). Soil from four of these locations (P2, P3, P7, and P8) either did not contain concentrations of PCOCs above applicable laboratory detection limits or contained concentrations of PCOCs below the MTCA Method A Soil Cleanup Levels.

Benzene was detected in native soil at concentrations of 0.032 milligrams/kilogram (mg/kg) and 0.063 mg/kg in test probe P4 at 10 feet bgs and P6 at 13 feet bgs, respectively. Both of these concentrations exceeded the MTCA Method A Soil Cleanup Level for benzene of 0.03 mg/kg. These locations were both situated around the perimeter of the current UST pad and in locations were historic petroleum contamination (which included benzene) was



documented. Therefore, these concentrations are attributed to historical contamination and not indicative of a current release (since 2003).

#### Groundwater Grab Sample Analytical Results

Analytical results for groundwater grab samples are summarized in Table 2 and depicted graphically on Figure 4.

Groundwater grab samples were submitted for analyses at test probe locations P1 and P8. Groundwater obtained from P1, situated on the northwestern portion of the Site did not contain concentrations of PCOCs above compound-specific laboratory detection limits.

Groundwater obtained from location P8, east and down-gradient of the observed UST, contained flagged concentrations of diesel and oil-range TPH that exceeded the MTCA Method A Cleanup Level for Ground Water of 500 micrograms/liter ( $\mu$ g/L). RGI contacted the laboratory regarding these flagged concentrations and the chemist indicated that these detections may be due to interference from naturally occurring organic material that could be removed with silica gel cleanup.

Based on this information, sample P8-W was subsequently analyzed using silica gel clean up and diesel- or oil-range TPH were not detected at concentrations above compound-specific laboratory detection limits.

#### CONCLUSIONS

Based on the data obtained during this BEA, RGI draws the following conclusions for the Site:

- ➤ A UST was observed near the southeast corner of the building and the contents, orientation and size of this UST are unknown. However, this UST is suspected to be the 550-gallon waste oil UST documented in King County Archived Assessor Records.
- Soil contamination associated with petroleum is known to be present on the Site. Soil data obtained during the BEA did not indicate the presence of a recent petroleum release on the Site. Benzene contaminated soil observed north and south of the UST pad during the BEA was consistent with historical (pre-2003) documented soil contamination.
- Groundwater contamination associated with petroleum is known to be present on the Site. Analytical data obtained from groundwater grab samples collected from the northern and eastern portion of the Site appear to indicate that groundwater impacts have not migrated off-Site in these locations (P1 and P8).
- RGI also understands that Chevron (former owner) is liable for cleanup costs incurred during the planned redevelopment. The results of this BEA indicate that no new soil or groundwater releases have occurred on the Site and that soil and groundwater contamination on the Site is consistent with previously documented soil and groundwater contamination prior to 2003.

#### LIMITATIONS

This report is the property of RGI, Fields Holdings LLC, and its authorized representatives or affiliates and was prepared in a manner consistent with the level of skill and care ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions. This report is intended for specific application to the Site located at 4700



Brooklyn Avenue NE in Seattle, Washington. No other warranty, expressed or implied, is made.

The analyses and recommendations presented in this report are based upon data obtained from our review of available information at the time of preparing this report, our test probes drilled on the Site, or other noted data sources. Conditional changes may occur through time by natural or human-made process on this or adjacent properties. Additional changes may occur in legislative standards, which may or may not be applicable to this report. These changes, beyond RGI's control, may render this report invalid, partially or wholly. If variations appear evident, RGI should be requested to reevaluate the recommendations in this report.

Please contact us at (425) 415-0551 if you have any questions or need additional information.

Sincerely,

THE RILEY GROUP, INC.

Senior Environmental Scientist

Paul D. Riley, LG, LHG

Paul D. Riley, LG, LH Principal

Distribution:

Attachments:

Figure 1, Site Vicinity Map Figure 2, Site Plan With Pertinent Historical

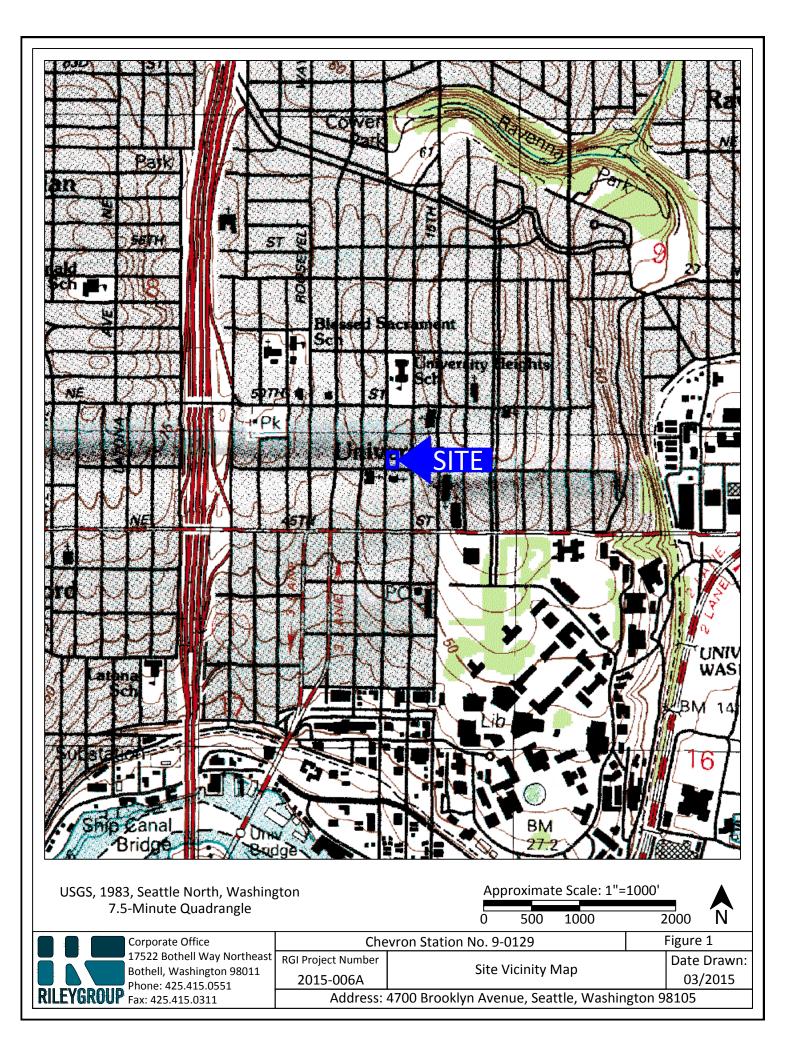
Mr. Eran Fields, Fields Holdings, LLC (one bound copy and PDF)

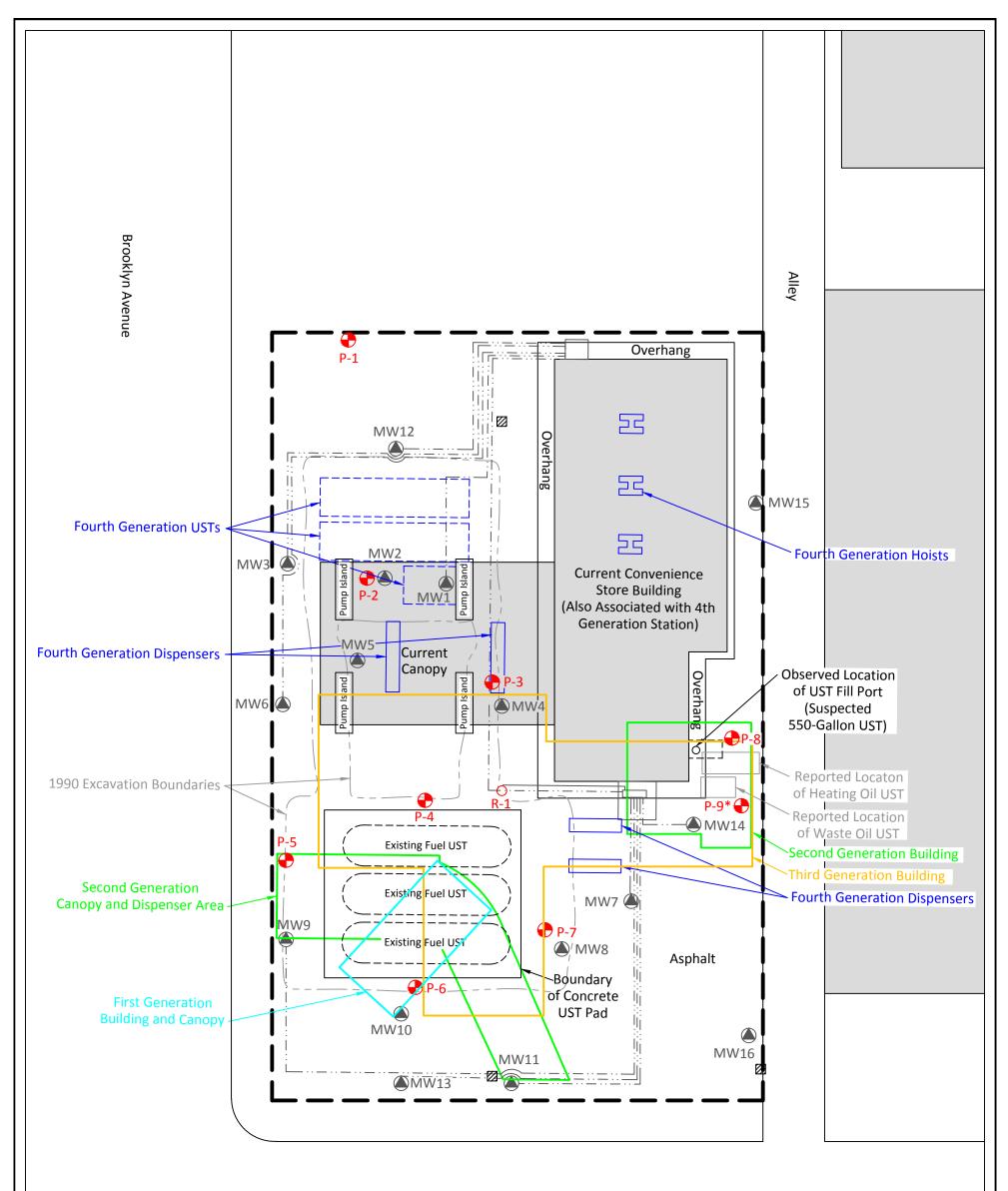
Figure 3, Site Plan With Soil Analytical Results Figure 4, Site Plan With Groundwater Analytical Results

Table 1, Summary of Soil Sample Analytical Laboratory Results Table 2, Summary of Groundwater Grab Sample Analytical Laboratory Results

Appendix A, Test Probe Logs Appendix B, Analytical Laboratory Reports





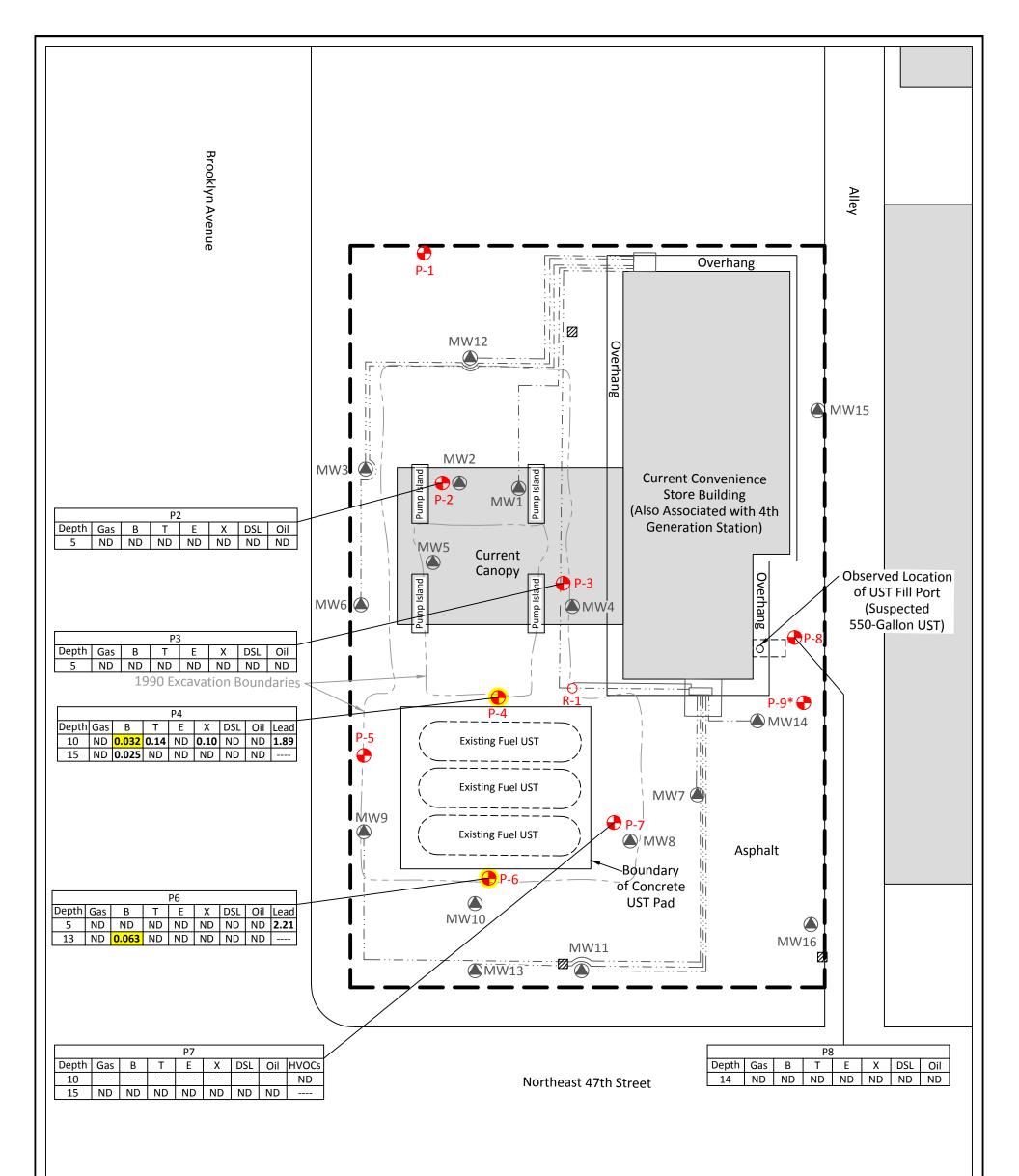


Northeast 47th Street

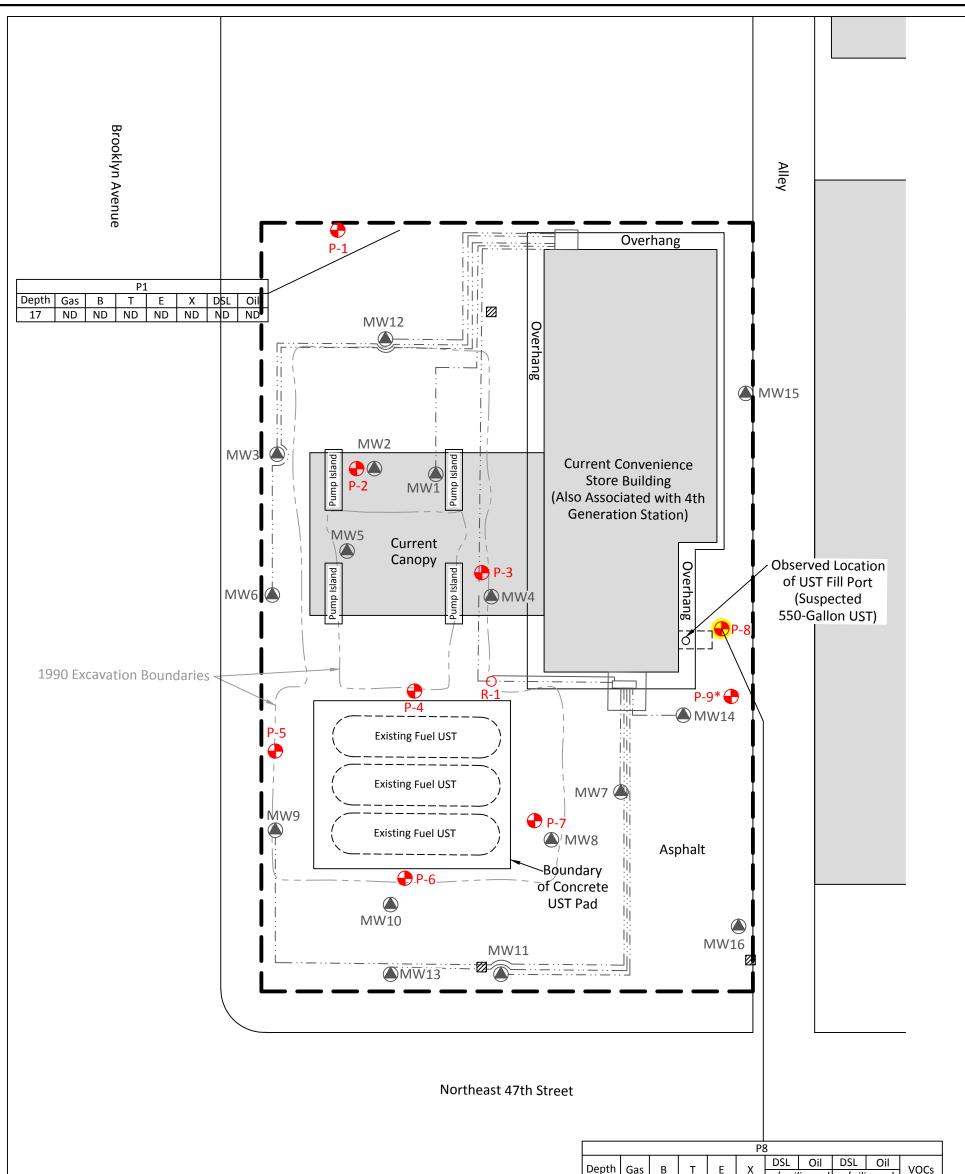
- (in red) Test probe location by RGI on 02/24/15
  - = (in red) Product recovery well
- = (in black) Current monitoring well location
  - = Test probe P9 was relocated to location P8 in order to drill closer to the observed UST.
- ---- = (in black) Approximate location of lines associated with air sparge/soil vapor extraction (AS/SVE) system
- 🖾 🛛 = (in black) Catch basin
- – = (in gray) Approximate extents of 1990 excavation by GeoEngineers
  - = (in light blue) First generation gas station
  - = (in green) Second generation gas station
  - = (in orange) Third generation gas station
- ——— = (in dark blue) Fourth generation gas station
- ——— = (in black) Current gas station
- = Site boundary

Ο

	Corporate Office		evron Station No. 9-0129	Figure 2
Approximate Scale: 1"=20'	17522 Bothell Way Northeast Bothell, Washington 98011 Phone: 425.415.0551	RGI Project Number 2015-006A	Site Plan with Test Probe Locations Pertinent Historical Features	and Date Drawn: 03/2015
0 10 20 40 N <b>RILEYGROU</b>	Fax: 425.415.0311	Address:	4700 Brooklyn Avenue, Seattle, Washin	ngton 98105



	BTEX = Benzene, to HVOCs = Halogenat ND = Not detected = Not analyzed Bold and yellow hig = (in red) Test probe locat = (in red) Product recover = (in black) Current monit = Test probe P9 was reloc	bline/diesel/oil f bluene, ethylber ted volatile orga above the labo ghlighted result tion by RGI on ( ry well toring well loca cated to locatio	total petroleum hydrocarl nzene, xylenes anic compounds ratory detection limit s exceed MTCA Cleanup L 02/24/15	evels. r to the observed L		
			Corporate Office	Che	vron Station No. 9-0129	Figure 3
			17522 Bothell Way Northeast Bothell, Washington 98011	RGI Project Number	Site Plan with Test Probes Locations	Date Drawn:
Approximate	e Scale: 1"=20"					
Approximate	20 $40$ N		Phone: 425.415.0551	2015-006A	and Soil Analytical Laboratory Results	03/2015



	Depth	Gas B	T	E	X w/o silica gel	w/ silica		
	17	ND N	) ND	ND	ND 540 x 900 x			
= Groundwater analytical laboratory results in ug/L Gas/DSL/Oil = Gasoline/diesel/oil total petroleum hydrocarb BTEX = Benzene, toluene, ethylbenzene, xylenes VOCs = Volatile organic compounds ND = Not detected above the laboratory detection limit								
Bold and yellow highlighted results exceed MTCA Cleanup Levels.         x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.         •       = (in red) Test probe location by RGI on 02/24/15         •       = (in red) Product recovery well         •       = (in black) Current monitoring well location         *       = Test probe P9 was relocated to location P8 in order to drill closer to the observed UST.         •       •         •       = (in black) Approximate location of lines associated with air sparge/soil vapor extraction (AS/SVE) system         □       •         •       = Site boundary								
Corporate Office	Chevr	ron Statio	n No.	9-012	29	F	igure 4	
Approximate Scale: 1"=20'	RGI Project Number	Site Pla	with	Test F	Probes Locations	and	Date Drawn:	
Phone: 425.415.0551	2015-006A	Groundw	ater A	nalyti	cal Laboratory R	esults	03/2015	
0 10 20 40 N <b>RILEYGROUP</b> Fax: 425.415.0311	Address: 47	700 Broo	klyn Av	/enue	e, Seattle, Washir	ngton 9	8105	

		o. 9-0129				00405						
	•	enue North nc. Project	-	-	shington	98105						
Sample	Sample	Sample		Gasoline		ВТ	EX		Diesel			Total
Number	Depth	Date	PID	ТРН	В	Т	E	х	TPH	Oil TPH	HVOCs	Lead
P1-5	5	02/24/15	0.3									
P1-9	9	02/24/15	0.2									
P1-15	15	02/24/15	0.4									
P1-18	18	02/24/15	0.1									
P1-22	22	02/24/15	0.2									
P2-5	5	02/24/15	0.4	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250		
P2-10	10	02/24/15	0.1									
P3-5	5	02/24/15	1.7	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250		
P3-10	10	02/24/15	1.0									
P4-5	5	02/24/15	3.4									
P4-10	10	02/24/15	90.1	ND<2	0.032	0.14	ND<0.02	0.10	ND<50	ND<250		1.89
P4-15	15	02/24/15	8.3	ND<2	0.025	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250		
P4-19	19	02/24/15										
P5-5	5	02/24/15	1.1									
P6-5	5	02/24/15	41.0	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250		2.21
P6-9	9	02/24/15	1.2									
P6-13	13	02/24/15	2.0	ND<2	0.063	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250		
P6-14	14	02/24/15	3.9									
P7-5	5	02/24/15	4.5									
P7-10	10	02/24/15	8.4								ND	
P7-15	15	02/24/15	3.2	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250		
P7-17	17	02/24/15	3.0									
P8-5	5	02/24/15	1.7									
P8-10	10	02/24/15	2.0									
P8-14	14	02/24/15	2.1	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250		
P8-17	17	02/24/15	2.5									
P9-5	5	02/24/15	2.1									
P9-10	10	02/24/15	0.3									
		il Cleanup Le d Land Uses	evels for	<b>100/30</b> <sup>1</sup>	0.03	7	6	9	2,(	000	Analyte Specific	250

#### Notes:

All results and detection limits are given in milligrams per kilogram (mg/kg); equivalent to parts per million (ppm).

Sample Depth = Soil sample depth interval in feet below ground surface (bgs).

Gasoline TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Gx.

BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B.

Diesel and Oil TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx.

HVOCs (halogenated volatile organic compounds) determined using EPA Test Method 8260C.

Total lead determined by EPA Test Method 200.8.

# Table 1 Continued. Summary of Soil Sample Analytical Laboratory ResultsChevron Station No. 9-01294700 Brooklyn Avenue Northeast, Seattle, Washington 98105The Riley Group, Inc. Project No. 2015-006A

Notes Continued:

ND = Not detected at noted analytical detection limit.

---- = Not analyzed or not applicable.

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses (WAC 173-340-900, Table 740-1).

<sup>1</sup> The higher cleanup level is allowed if no benzene is detected in the sample and the total of toluene, ethylbenzene and xylenes is less than 1% of the gasoline mixture.

**Bold** results indicated concentrations above laboratory detection limits.

Bold and yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A Soil Cleanup Levels.

## Table 2. Summary of Groundwater Grab Sample Analytical Laboratory Results

Chevron Station No. 9-0129

4700 Brooklyn Avenue Northeast, Seattle, Washington 98105

The Riley Group, Inc. Project No. 2015-006A

Sample	Sample	Depth to	Gasoline TPH		BT	ΈX		Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	VOCs
Number	Date	Water (bgs)	Gasoline IPH	В	Т	E	Х	w/o silica gel		w/ silica gel		vocs
P1-W	02/24/15	17.5	ND<100	ND<1	ND<1	ND<1	ND<3	ND<50	ND<250			
P8-W	02/24/15	17.5	ND<100	ND<0.35	ND<1	ND<1	ND<2	540 x	900 x	ND<50	ND<250	ND
	hod A Cleanu Ground Wate	•	800/1,000 <sup>1</sup>	5	1,000	700	1,000	500	500	500	500	Analyte Specific

Notes:

Samples collected by RGI field staff using a peristaltic pump under low-flow conditions.

Unless otherwise noted, all analytical results are given in micrograms per liter (ug/L), equivalent to parts per billion (ppb).

Gasoline TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Gx

BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B or 8260C.

Diesel and Oil TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx with and without silica gel cleanup (to remove naturally occuring organic material).

VOCs (volatile organic compounds) determined using EPA Test Method 8260C.

ND = Not detected above the noted analytical detection limit.

---- = Not analyzed or not applicable.

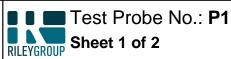
x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Cleanup Levels for Ground Water (WAC 173-340-900, Table 720-1).

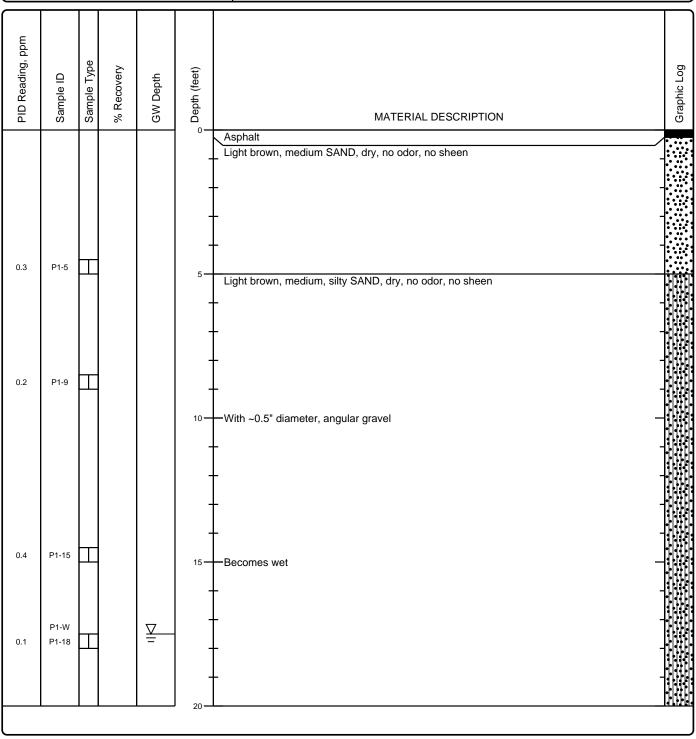
<sup>1</sup> The higher cleanup level is applicable if no benzene is detected in groundwater.

Bold results indicated concentrations above laboratory detection limits.

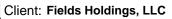
Bold and yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A or B Cleanup Levels for Ground Water.

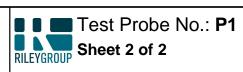


Date(s) Drilled: 02/24/15	Logged By: SL	Surface Conditions: Asphalt		
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25" Diameter	Total Depth of Borehole: 22 feet bgs		
Drill Rig Type: Track-Mounted	Drilling Contractor: The Riley Group, Inc.	Approximate Surface Elevation: <b>n/a</b>		
Groundwater Level: 17.5 feet bgs	Sampling Method(s): Continuous	Hammer Data : <b>n/a</b>		
Borehole Backfill: Bentonite	Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105			

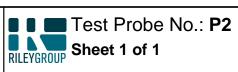


Project Name: Chevron Station No. 9-0129 Project Number: 2015-006A



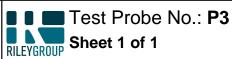


0.2 P1:22 P1:22 P1:22 P1:22 Light gray, medium, silty SAND, wet, no odor, no sheen Test probe terminated at 22 feet bgs - - - - - - - - -	PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	bepth (feet) □	MATERIAL DESCRIPTION	Graphic Log
	0.2	P1-22				- - - - - - - - - - - - - - - - - - -		



Date(s) Drilled: 02/24/15	Logged By: SL	Surface Conditions: Concrete		
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25" Diameter	Total Depth of Borehole: 10 feet bgs		
Drill Rig Type: Track-Mounted	Drilling Contractor: The Riley Group, Inc.	Approximate Surface Elevation: <b>n/a</b>		
Groundwater Level: Not Encountered	Sampling Method(s): Continuous	Hammer Data : <b>n/a</b>		
Borehole Backfill: Bentonite	Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105			

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
			-		0	Concrete Light brown, fine to coarse, silty SAND, dry, no odor, no sheen	
1.7					-	- - -	
0.4	P2-5				5	Vacuum, excavated to 5 feet bgs	
					-	- - -	
0.1	P2-10				10 — - -	Test probe terminated at 10 feet bgs	
						-	-
					-		-
					- - 20	-	-



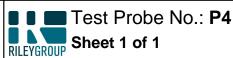
 Date(s) Drilled: 02/24/15
 Logged By: SL
 Surface Conditions: Concrete

 Drilling Method(s): Direct Push
 Drill Bit Size/Type: 2.25" Diameter
 Total Depth of Borehole: 10 feet bgs

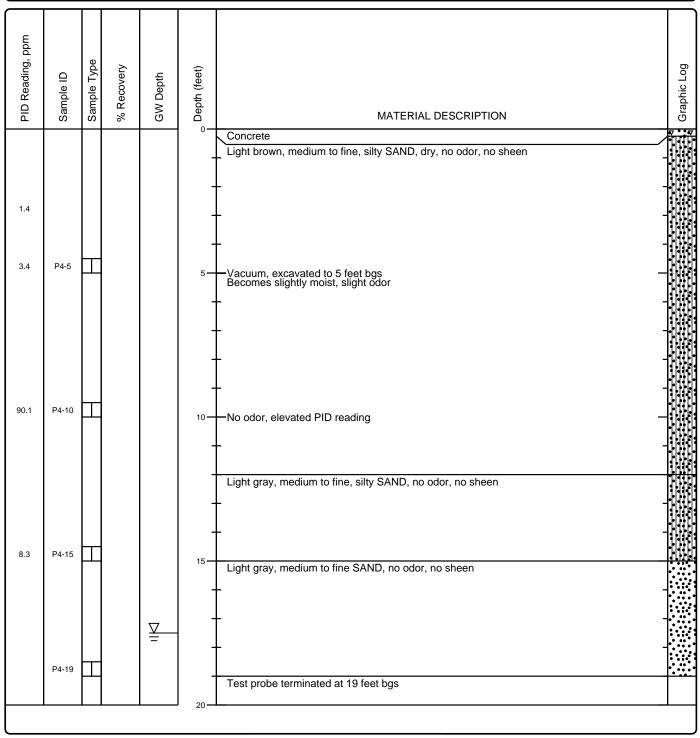
 Drill Rig Type: Track-Mounted
 Drilling Contractor: The Riley Group, Inc.
 Approximate Surface Elevation: n/a

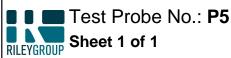
 Groundwater Level: Not Encountered
 Sampling Method(s): Continuous
 Hammer Data : n/a

 Borehole Backfill: Bentonite
 Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105



Date(s) Drilled: 02/24/15	Logged By: SL	Surface Conditions: Concrete		
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25" Diameter	Total Depth of Borehole: 19 feet bgs		
Drill Rig Type: Track-Mounted	Drilling Contractor: The Riley Group, Inc.	Approximate Surface Elevation: <b>n/a</b>		
Groundwater Level: 17.5 feet bgs	Sampling Method(s): Continuous	Hammer Data : <b>n/a</b>		
Borehole Backfill: Bentonite	Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105			





 Date(s) Drilled: 02/24/15
 Logged By: SL
 Surface Conditions: Asphalt

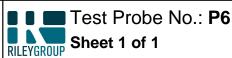
 Drilling Method(s): Direct Push
 Drill Bit Size/Type: 2.25" Diameter
 Total Depth of Borehole: 5 feet bgs

 Drill Rig Type: Track-Mounted
 Drilling Contractor: The Riley Group, Inc.
 Approximate Surface Elevation: n/a

 Groundwater Level: Not Encountered
 Sampling Method(s): Continuous
 Hammer Data : n/a

 Borehole Backfill: Bentonite
 Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105

$\square$							
PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	₀ Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
0.7						Asphalt Gray, pea GRAVEL, dry, no odor, no sheen	00000000000000000000000000000000000000
1.1	P5-5	T			_	Test probe terminated at 5 feet bgs	
						- - -	-
					15	- - -	-
					+		-
					20		



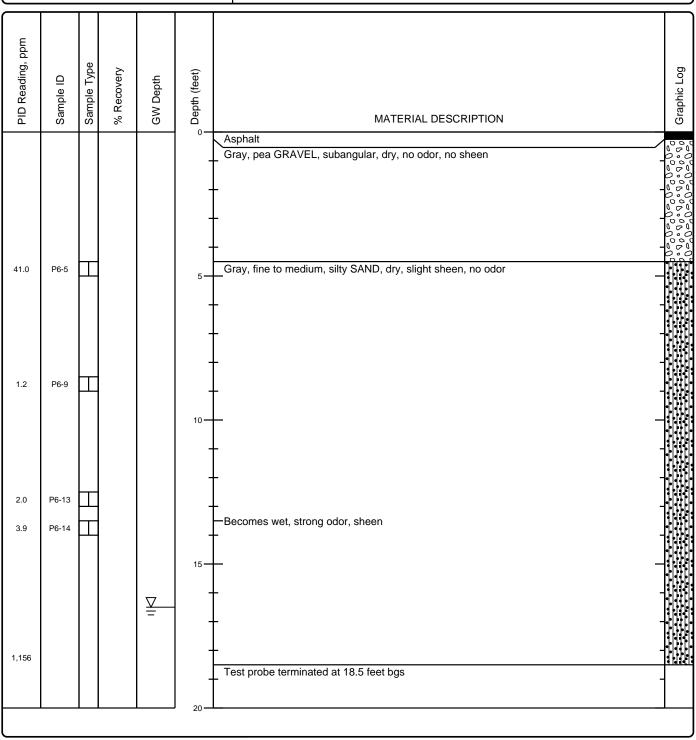
 Date(s) Drilled: 02/24/15
 Logged By: SL
 Surface Conditions: Asphalt

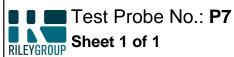
 Drilling Method(s): Direct Push
 Drill Bit Size/Type: 2.25" Diameter
 Total Depth of Borehole: 18.5 feet bgs

 Drill Rig Type: Track-Mounted
 Drilling Contractor: The Riley Group, Inc.
 Approximate Surface Elevation: n/a

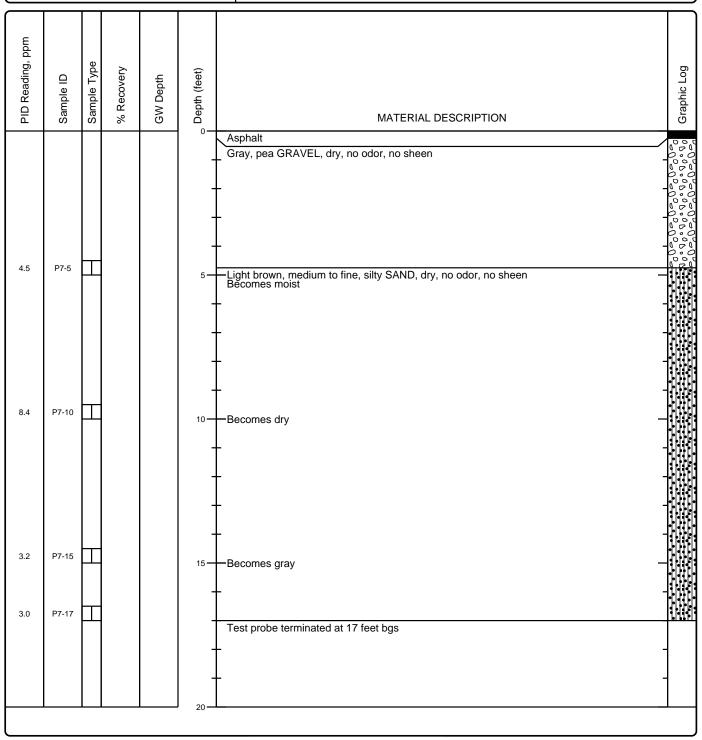
 Groundwater Level: 16.5 feet bgs
 Sampling Method(s): Continuous
 Hammer Data : n/a

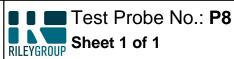
 Borehole Backfill: Bentonite
 Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105



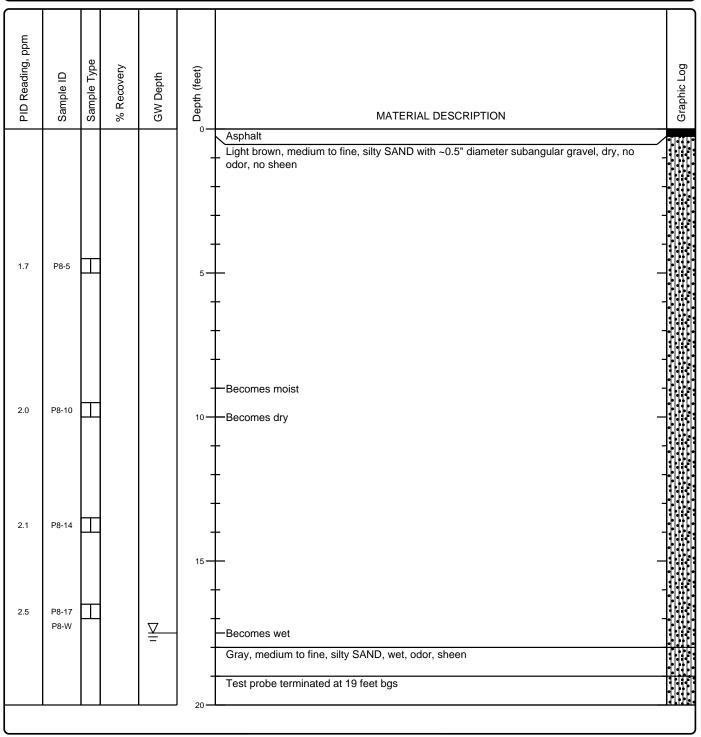


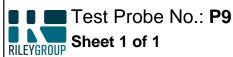
Date(s) Drilled: 02/24/15	Logged By: SL	Surface Conditions: Asphalt	
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25" Diameter	Total Depth of Borehole: 17 feet bgs	
Drill Rig Type: Track-Mounted	Drilling Contractor: The Riley Group, Inc.	Approximate Surface Elevation: <b>n/a</b>	
Groundwater Level: Not Encountered	Sampling Method(s): Continuous	Hammer Data : <b>n/a</b>	
Borehole Backfill: Bentonite	Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105		





Date(s) Drilled: 02/24/15	Logged By: SL	Surface Conditions: Asphalt	
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25" Diameter	Total Depth of Borehole: 19 feet bgs	
Drill Rig Type: Track-Mounted	Drilling Contractor: The Riley Group, Inc.	Approximate Surface Elevation: <b>n/a</b>	
Groundwater Level: 17.5 feet bgs	Sampling Method(s): Continuous	Hammer Data : <b>n/a</b>	
Borehole Backfill: Bentonite	Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105		





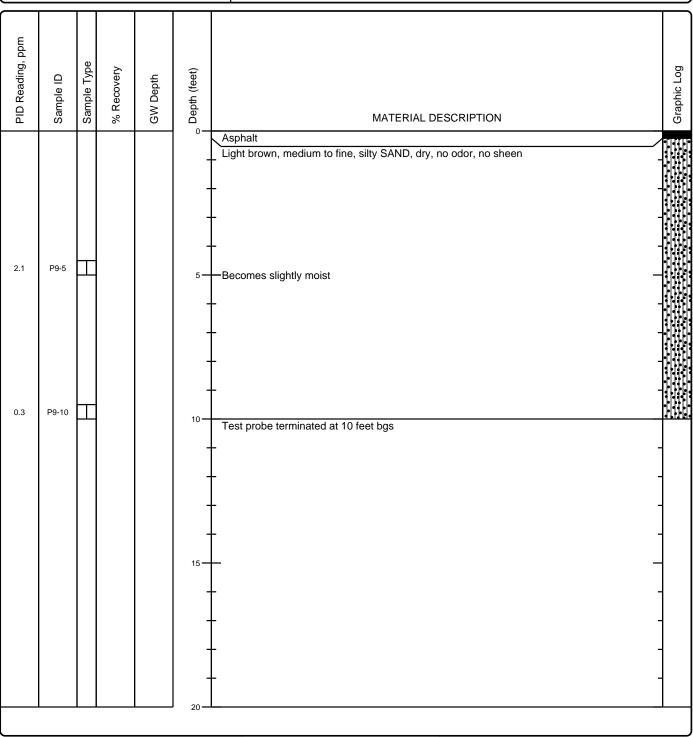
 Date(s) Drilled: 02/24/15
 Logged By: SL
 Surface Conditions: Asphalt

 Drilling Method(s): Direct Push
 Drill Bit Size/Type: 2.25" Diameter
 Total Depth of Borehole: 10 feet bgs

 Drill Rig Type: Track-Mounted
 Drilling Contractor: The Riley Group, Inc.
 Approximate Surface Elevation: n/a

 Groundwater Level: Not Encountered
 Sampling Method(s): Continuous
 Hammer Data : n/a

 Borehole Backfill: Bentonite
 Location: 4700 Brooklyn Avenue Northeast, Seattle, Washington 98105



Client: Fields Holdings, LLC



PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION					
1	2	3	4	5	6			7		8	
COLU	MN DE	SCR	IPTION	<u>S</u>							
in <b>2</b> Sa <b>3</b> Sa sh	<ol> <li>COLUMN DESCRIPTIONS         <ol> <li>PID Reading, ppm: The reading from a photo-ionization detector, in parts per million.</li> <li>Sample ID: Sample identification number.</li> <li>Sample Type: Type of soil sample collected at the depth interval shown.</li> <li>% Recovery: % Recoverysquare foot.</li> </ol> </li> <li>Sumple Type: Type of soil sample collected at the depth interval shown.</li> <li>Graphic Log: Graphic depiction of the subsurface material encountered.</li> <li>Graphic Log: Graphic depiction of the subsurface material encountered.</li> </ol>										
FIELD	AND L	ABC	RATO			EVIATIONS					
COME	CHEM: Chemical tests to assess corrosivityPI: Plasticity Index, percentCOMP: Compaction testSA: Sieve analysis (percent passing No. 200 Sieve)CONS: One-dimensional consolidation testUC: Unconfined compressive strength test, Qu, in ksfLL: Liquid Limit, percentWA: Wash sieve (percent passing No. 200 Sieve)										
MATE	RIAL G	RAP	HIC SY	MBOLS	<u>i</u>						
₹ • ↓ • ↓ • ↓ • ↓	Asphaltic Concrete (AC)  Portland Cement Concrete  Silty SAND (SM)  Poorly graded SAND (SP)										
TYPIC	CAL SAI	MPL	ER GRA	APHIC S	YMBOL	<u>S</u>			OTHER GRAPHIC SYMBOLS		
Bu 3-ii bra	ger sam lk Samp nch-OD ass rings IE Samp	le Calif	ornia w/			mple -OD Modified ia w/ brass liners	N spo ∏ She	nch-OD unlined split ion (SPT) elby Tube (Thin-walled, d head)	<ul> <li>✓ Water level (at time of drilling, ATD)</li> <li>✓ Water level (after waiting)</li> <li>Minor change in material properties within a stratum</li> <li>– Inferred/gradational contact between strata</li> <li>–? – Queried contact between strata</li> </ul>		
			•								

GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.

2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

### 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

March 4, 2015

Jerry Sawetz, Project Manager The Riley Group, Inc. 17522 Bothell Way NE Bothell, WA 98011

Dear Mr. Sawetz:

Included are the results from the testing of material submitted on February 25, 2015 from the 2015-006A, F&BI 502407 project. There are 22 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures c: priley@riley-group.com, jfinley@riley-group.com, spoarch@riley-group.com TRG0304R.DOC

## ENVIRONMENTAL CHEMISTS

## CASE NARRATIVE

This case narrative encompasses samples received on February 25, 2015 by Friedman & Bruya, Inc. from the The Riley Group 2015-006A, F&BI 502407 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
502407 -01	P1-5
502407 -02	P1-9
502407 -03	P1-15
502407 -04	P1-18
502407 -05	P1-22
502407 -06	P1-W
502407 -07	P2-5
502407 -08	P2-10
502407 -09	P3-5
502407 -10	P3-10
502407 -11	P4-5
502407 -12	P4-10
502407 -13	P4-15
502407 -14	P4-19
502407 -15	P5-5
502407 -16	P6-5
502407 -17	P6-9
502407 -18	P6-13
502407 -19	P6-14
502407 -20	P7-5
502407 -21	P7-10
502407 -22	P7-15
502407 -23	P7-17
502407 -24	P8-5
502407 -25	P8-10
502407 -26	P8-14
502407 -27	P8-17
502407 -28	P8-W

Several compounds in the 8260C matrix spike exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

## ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407 Date Extracted: 02/26/15 Date Analyzed: 02/26/15

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

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	Gasoline Range	Surrogate ( <u>% Recovery)</u> (Limit 51-134)
P8-W 502407-28	<100	103
Method Blank <sup>05-368 MB</sup>	<100	110

## ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407 Date Extracted: 02/26/15 Date Analyzed: 02/26/15

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

<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 52-124)
P1-W 502407-06	<1	<1	<1	<3	<100	98
Method Blank 05-368 MB	<1	<1	<1	<3	<100	107

Results Reported as ug/L (ppb)

## ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407 Date Extracted: 02/26/15 Date Analyzed: 02/26/15 and 02/27/15

## 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)
P2-5 502407-07	<0.02	< 0.02	< 0.02	<0.06	<2	105
P3-5 502407-09	< 0.02	< 0.02	< 0.02	< 0.06	<2	100
P4-10 502407-12	0.032	0.14	< 0.02	0.10	<2	101
P4-15 502407-13	< 0.02	0.025	< 0.02	< 0.06	<2	103
P6-5 502407-16	< 0.02	< 0.02	< 0.02	< 0.06	<2	104
P6-13 502407-18	0.063	< 0.02	< 0.02	< 0.06	<2	106
P7-15 502407-22	< 0.02	< 0.02	< 0.02	< 0.06	<2	105
P8-14 502407-26	< 0.02	< 0.02	< 0.02	< 0.06	<2	98
Method Blank <sup>05-0369 MB</sup>	<0.02	<0.02	< 0.02	<0.06	<2	90

## ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407 Date Extracted: 02/26/15 Date Analyzed: 02/27/15

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

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 47-140)
P1-W 502407-06	<50	<250	108
P8-W 502407-28	540 x	900 x	85
Method Blank <sup>05-402 MB</sup>	<50	<250	95

## ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407 Date Extracted: 02/26/15 Date Analyzed: 02/26/15

## RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx Sample Extracts Passed Through a Silica Gel Column Prior to Analysis 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 48-168)
P2-5 502407-07	<50	<250	108
P3-5 502407-09	<50	<250	107
P4-10 502407-12	<50	<250	96
P4-15 502407-13	<50	<250	109
P6-5 502407-16	<50	<250	106
P6-13 502407-18	<50	<250	108
P7-15 502407-22	<50	<250	109
<b>P8-14</b> 502407-26	<50	<250	108
Method Blank <sup>05-385 MB2</sup>	<50	<250	106

# ENVIRONMENTAL CHEMISTS

# Analysis For Total Metals By EPA Method 200.8

Client ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	P4-10 02/25/15 02/27/15 03/02/15 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	The Riley Group 2015-006A, F&BI 502407 502407-12 502407-12.063 ICPMS1 AP
Internal Standard: Holmium	% Recovery: 87	Lower Limit: 60	Upper Limit: 125
Analyte:	Concentration mg/kg (ppm)		
Lead	1.89		

7

# ENVIRONMENTAL CHEMISTS

# Analysis For Total Metals By EPA Method 200.8

Client ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	P6-5 02/25/15 02/27/15 03/02/15 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	The Riley Group 2015-006A, F&BI 502407 502407-16 502407-16.064 ICPMS1 AP
Internal Standard: Holmium	% Recovery: 87	Lower Limit: 60	Upper Limit: 125
Analyte:	Concentration mg/kg (ppm)		
Lead	2.21		

# ENVIRONMENTAL CHEMISTS

# Analysis For Total Metals By EPA Method 200.8

Client ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	Method Blank NA 02/27/15 03/02/15 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	The Riley Group 2015-006A, F&BI 502407 I5-124 mb I5-124 mb.027 ICPMS1 AP
Internal Standard: Holmium	% Recovery: 98	Lower Limit: 60	Upper Limit: 125
Analyte:	Concentration mg/kg (ppm)		

<1

Lead

## ENVIRONMENTAL CHEMISTS

# Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	P7-10 02/25/15 02/26/15 02/26/15 Soil mg/kg (ppm	) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	The Riley Group 2015-006A, F&BI 502407 502407-21 022617.D GCMS9 SP
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4		100	90	111
Toluene-d8		95	64	137
4-Bromofluorobenzene		101	81	119
Compounds:		Concentration mg/kg (ppm)		
Vinyl chloride		< 0.05		
Chloroethane		< 0.5		
1,1-Dichloroethene		< 0.05		
Methylene chloride		< 0.5		
trans-1,2-Dichloroethene		< 0.05		
1,1-Dichloroethane		< 0.05		
cis-1,2-Dichloroethene		< 0.05		
1,2-Dichloroethane (EDC)		< 0.05		
1,1,1-Trichloroethane		< 0.05		
Trichloroethene		< 0.02		
Tetrachloroethene		< 0.025		

# ENVIRONMENTAL CHEMISTS

# Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	Method Blan Not Applicab 02/26/15 02/26/15 Soil mg/kg (ppm)	le	Client: Project: Lab ID: Data File: Instrument: Operator:	The Riley Group 2015-006A, F&BI 502407 05-0351 mb2 022606A.D GCMS9 SP
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane	-d4	104	90	111
Toluene-d8		95	64	137
4-Bromofluorobenz	ene	99	81	119
	(	Concentration		
Compounds:		mg/kg (ppm)		
Vinyl chloride		< 0.05		
Chloroethane		< 0.5		
1,1-Dichloroethene	:	< 0.05		
Methylene chloride	<u>)</u>	< 0.5		
trans-1,2-Dichloroe	ethene	< 0.05		
1,1-Dichloroethane		< 0.05		
cis-1,2-Dichloroeth	ene	< 0.05		
1,2-Dichloroethane	(EDC)	< 0.05		
1,1,1-Trichloroetha	ine	< 0.05		
Trichloroethene		< 0.02		
Tetrachloroethene		< 0.025		

# ENVIRONMENTAL CHEMISTS

# Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	P8-W 02/25/15 02/25/15 02/26/15 Water ug/L (ppb)		Client: Project: Lab ID: Data File: Instrument: Operator:	The Riley Group 2015-006A, F&BI 502 502407-28 022616.D GCMS9 SP	407
Surrogates: 1,2-Dichloroethane Toluene-d8 4-Bromofluorobenz		% Recovery: 101 95 99	Lower Limit: 85 93 76	Upper Limit: 117 107 126	
Compounds:		Concentration ug/L (ppb)	Compou	nds:	Concentration ug/L (ppb)
Dichlorodifluorome	ethane	<1	1,3-Dich	loropropane	<1
Chloromethane		<10		oroethene	<1
Vinyl chloride		<0.2	Dibromo	ochloromethane	<1
Bromomethane		<1	1,2-Dibr	omoethane (EDB)	<1
Chloroethane		<1	Chlorobe	enzene	<1
Trichlorofluoromet	hane	<1	Ethylber	nzene	<1
Acetone		<10	1,1,1,2-T	etrachloroethane	<1
1,1-Dichloroethene		<1	m,p-Xyle	ene	<2
Methylene chloride		<5	o-Xylene		<1
Methyl t-butyl ethe	er (MTBE)	<1	Styrene		<1
trans-1,2-Dichloroe	ethene	<1	Isopropy	lbenzene	<1
1,1-Dichloroethane		<1	Bromofo	rm	<1
2,2-Dichloropropan	e	<1	n-Propyl	benzene	<1
cis-1,2-Dichloroeth	ene	<1	Bromobe	enzene	<1
Chloroform		<1	1,3,5-Tri	methylbenzene	<1
2-Butanone (MEK)		<10	1,1,2,2-T	etrachloroethane	<1
1,2-Dichloroethane		<1	1,2,3-Tri	chloropropane	<1
1,1,1-Trichloroetha		<1	2-Chloro		<1
1,1-Dichloropropen		<1	4-Chloro		<1
Carbon tetrachlorie	de	<1		ylbenzene	<1
Benzene		< 0.35		methylbenzene	<1
Trichloroethene		<1		lbenzene	<1
1,2-Dichloropropan		<1		pyltoluene	<1
Bromodichlorometh	nane	<1		lorobenzene	<1
Dibromomethane		<1		lorobenzene	<1
4-Methyl-2-pentan		<10		lorobenzene	<1
cis-1,3-Dichloropro	pene	<1		omo-3-chloropropane	<10
Toluene		<1		chlorobenzene	<1
trans-1,3-Dichlorop		<1		orobutadiene	<1
1,1,2-Trichloroetha	ine	<1	Naphtha		<1
2-Hexanone		<10	1,2,3-Tri	chlorobenzene	<1

# ENVIRONMENTAL CHEMISTS

# Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	Method Bla Not Applica 02/25/15 02/25/15 Water ug/L (ppb)		Client: Project: Lab ID: Data File: Instrument: Operator:	The Riley Group 2015-006A, F&BI 502 05-350 mb 025008.D GCMS9 SP	407
Surrogates: 1,2-Dichloroethane Toluene-d8 4-Bromofluorobenz		% Recovery: 99 95 97	Lower Limit: 85 93 76	Upper Limit: 117 107 126	
Compounds:		Concentration ug/L (ppb)	Compour	nds:	Concentration ug/L (ppb)
Dichlorodifluorome	ethane	<1	1,3-Dich	loropropane	<1
Chloromethane		<10		loroethene	<1
Vinyl chloride		<0.2	Dibromo	ochloromethane	<1
Bromomethane		<1	1,2-Dibro	omoethane (EDB)	<1
Chloroethane		<1	Chlorobe	enzene	<1
Trichlorofluoromet	hane	<1	Ethylber	nzene	<1
Acetone		<10	1,1,1,2-T	etrachloroethane	<1
1,1-Dichloroethene		<1	m,p-Xyle	ene	<2
Methylene chloride	•	<5	o-Xylene		<1
Methyl t-butyl ethe	er (MTBE)	<1	Styrene		<1
trans-1,2-Dichloroe	ethene	<1	Isopropy	lbenzene	<1
1,1-Dichloroethane		<1	Bromofo	rm	<1
2,2-Dichloropropan	e	<1	n-Propyl	lbenzene	<1
cis-1,2-Dichloroeth	ene	<1	Bromobe		<1
Chloroform		<1	1,3,5-Tri	methylbenzene	<1
2-Butanone (MEK)		<10	1,1,2,2-T	etrachloroethane	<1
1,2-Dichloroethane	(EDC)	<1	1,2,3-Tri	chloropropane	<1
1,1,1-Trichloroetha	ne	<1	2-Chloro	otoluene	<1
1,1-Dichloropropen		<1	4-Chloro		<1
Carbon tetrachlorie	de	<1		ylbenzene	<1
Benzene		< 0.35		methylbenzene	<1
Trichloroethene		<1		lbenzene	<1
1,2-Dichloropropan		<1		pyltoluene	<1
Bromodichlorometh	nane	<1		lorobenzene	<1
Dibromomethane		<1		lorobenzene	<1
4-Methyl-2-pentan		<10		lorobenzene	<1
cis-1,3-Dichloropro	pene	<1		omo-3-chloropropane	<10
Toluene		<1		chlorobenzene	<1
trans-1,3-Dichlorop		<1		orobutadiene	<1
1,1,2-Trichloroetha	ne	<1	Naphtha		<1
2-Hexanone		<10	1,2,3-Tri	chlorobenzene	<1

#### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

Laboratory Code: 502407-06 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

		Percent					
	Reporting	Spike	Recovery	Acceptance			
Analyte	Units	Level	LCS	Criteria			
Benzene	ug/L (ppb)	50	83	65-118			
Toluene	ug/L (ppb)	50	93	72-122			
Ethylbenzene	ug/L (ppb)	50	104	73-126			
Xylenes	ug/L (ppb)	150	99	74-118			
Gasoline	ug/L (ppb)	1,000	97	69-134			

#### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

### 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: 502317-09 (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

		Percent					
	Reporting	Spike	Recovery	Acceptance			
Analyte	Units	Level	LCS	Criteria			
Benzene	mg/kg (ppm)	0.5	79	69-120			
Toluene	mg/kg (ppm)	0.5	95	70-117			
Ethylbenzene	mg/kg (ppm)	0.5	98	65-123			
Xylenes	mg/kg (ppm)	1.5	94	66-120			
Gasoline	mg/kg (ppm)	20	95	71-131			

### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Diesel Extended	ug/L (ppb)	2,500	87	89	61-133	2

### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

Laboratory Code:	502379-01 (Matri	x Spike)	Silica Gel				
-		-	Sample	Percent	Percent		
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	(Wet Wt)	MS	MSD	Criteria	(Limit 20)
<b>Diesel Extended</b>	mg/kg (ppm)	5,000	<50	115	107	63-146	7
Laboratory Code:	Laboratory Contr	ol Sampl	le Silica Gel				
			Percent				
	Reporting	Spike	Recovery	Accep	tance		
Analyte	Units	Level	LCS	Crite	eria		
Diesel Extended	mg/kg (ppm)	5,000	105	79-1	44		

### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

Laboratory Code	: 502381-03 (Ma	atrix Spik	e)				
-		-	Sample	Percent	Percent		
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	(Wet wt)	MS	MSD	Criteria	(Limit 20)
Lead	mg/kg (ppm)	10	20.2	19 vo	14 vo	59-148	30 vo

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	mg/kg (ppm)	10	93	80-120

### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

Laboratory Code: 502397-01 (Matrix Spike)

			Sample	Percent	Percent		
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	(Wet wt)	MS	MSD	Criteria	(Limit 20)
Vinyl chloride	mg/kg (ppm)	2.5	< 0.05	52	52	10-91	0
Chloroethane	mg/kg (ppm)	2.5	< 0.5	66	63	10-101	5
1,1-Dichloroethene	mg/kg (ppm)	2.5	< 0.05	70	70	11-103	0
Methylene chloride	mg/kg (ppm)	2.5	< 0.5	92	87	14-128	6
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	< 0.05	81	78	13-112	4
1,1-Dichloroethane	mg/kg (ppm)	2.5	< 0.05	81	80	23-115	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	< 0.05	83	82	25-120	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	< 0.05	84	81	22-124	4
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	< 0.05	85	84	27-112	1
Trichloroethene	mg/kg (ppm)	2.5	< 0.02	85	83	30-112	2
Tetrachloroethene	mg/kg (ppm)	2.5	< 0.025	86	88	27-110	2

· · · · · ·		-	
		Percent	
Reporting	Spike	Recovery	Acceptance
Units	Level	LCS	Criteria
mg/kg (ppm)	2.5	74	42-107
mg/kg (ppm)	2.5	76	47-115
mg/kg (ppm)	2.5	82	65-110
mg/kg (ppm)	2.5	87	62-119
mg/kg (ppm)	2.5	87	71-113
mg/kg (ppm)	2.5	84	76-109
mg/kg (ppm)	2.5	88	77-110
mg/kg (ppm)	2.5	85	80-109
mg/kg (ppm)	2.5	91	72-116
mg/kg (ppm)	2.5	87	72-107
mg/kg (ppm)	2.5	89	77-110
	Units mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm)	Units         Level           mg/kg (ppm)         2.5           mg/kg (ppm)         2.5	UnitsLevelLCSmg/kg (ppm)2.574mg/kg (ppm)2.576mg/kg (ppm)2.582mg/kg (ppm)2.587mg/kg (ppm)2.587mg/kg (ppm)2.584mg/kg (ppm)2.588mg/kg (ppm)2.585mg/kg (ppm)2.591mg/kg (ppm)2.587

### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

Percent

Laboratory Code: 502407-28 (Matrix Spike)

				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	105	55-144
Chloromethane	ug/L (ppb)	50	<10	95	67-131
Vinyl chloride	ug/L (ppb)	50	<0.2	101	61-139
Bromomethane	ug/L (ppb)	50	<1	109	66-129
Chloroethane	ug/L (ppb)	50	<1	102	68-126
Trichlorofluoromethane	ug/L (ppb)	50 250	<1	102 99	71-128
Acetone 1,1-Dichloroethene	ug/L (ppb) ug/L (ppb)	250 50	<10 <1	99 99	48-149 71-123
Methylene chloride	ug/L (ppb)	50 50	<5	101	61-126
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	97	68-125
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	101	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	98	79-113
2,2-Dichloropropane	ug/L (ppb)	50	<1	98	58-132
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	99	73-119
Chloroform	ug/L (ppb)	50	<1	96	80-112
2-Butanone (MEK)	ug/L (ppb)	250	<10	102	69-123
1,2-Dichloroethane (EDC)	ug/L (ppb)	50 50	<1	98	78-113
1,1,1-Trichloroethane 1,1-Dichloropropene	ug/L (ppb)	50 50	<1 <1	104 100	79-116 67-121
Carbon tetrachloride	ug/L (ppb) ug/L (ppb)	50 50	<1	100	72-123
Benzene	ug/L (ppb)	50	<0.35	93	72-123
Trichloroethene	ug/L (ppb)	50	<1	98	75-109
1,2-Dichloropropane	ug/L (ppb)	50	<1	98	80-111
Bromodichloromethane	ug/L (ppb)	50	<1	100	78-117
Dibromomethane	ug/L (ppb)	50	<1	93	80-112
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	108	79-123
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	99	76-120
Toluene	ug/L (ppb)	50	<1	105	73-117
trans-1,3-Dichloropropene 1.1.2-Trichloroethane	ug/L (ppb)	50 50	<1	110 103	75-122 81-111
2-Hexanone	ug/L (ppb) ug/L (ppb)	50 250	<1 <10	103	75-126
1,3-Dichloropropane	ug/L (ppb) ug/L (ppb)	230 50	<10	103	81-111
Tetrachloroethene	ug/L (ppb)	50	<1	102	72-113
Dibromochloromethane	ug/L (ppb)	50	<1	112	69-129
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	110	83-114
Chlorobenzene	ug/L (ppb)	50	<1	102	75-115
Ethylbenzene	ug/L (ppb)	50	<1	109	71-120
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	110	78-122
m,p-Xylene	ug/L (ppb)	100	<2	109	63-128
o-Xylene Styrene	ug/L (ppb)	50 50	<1 <1	110 112	64-129 70-122
Isopropylbenzene	ug/L (ppb) ug/L (ppb)	50	<1	112	76-118
Bromoform	ug/L (ppb)	50	<1	104	49-138
n-Propylbenzene	ug/L (ppb)	50	<1	112	74-117
Bromobenzene	ug/L (ppb)	50	<1	109	70-121
1,3,5-Trimethylbenzene	ug/L (ppb)	50	<1	116 vo	81-112
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	110	79-120
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	104	72-119
2-Chlorotoluene	ug/L (ppb)	50	<1	110	77-114
4-Chlorotoluene tert-Butylbenzene	ug/L (ppb) ug/L (ppb)	50 50	<1 <1	111 vo 123 vo	81-109 81-116
1,2,4 Trimethylbenzene	ug/L (ppb)	50	<1	114	74-118
sec-Butylbenzene	ug/L (ppb)	50	<1	121 vo	77-118
p-Isopropyltoluene	ug/L (ppb)	50	<1	117	64-132
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	107	81-111
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	104	78-110
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	108	81-111
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	121	69-129
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	111	74-115
Hexachlorobutadiene	ug/L (ppb)	50	<1	109	67-120
Naphthalene 1,2,3-Trichlorobenzene	ug/L (ppb)	50 50	<1 <1	118 107	63-136 79-115
1,2,5 IIICHIOLODENZENE	ug/L (ppb)	30	<1	107	79-115

### ENVIRONMENTAL CHEMISTS

Date of Report: 03/04/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

Laboratory Coue. Laborator	- •		Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	108	107	54-149	1
Chloromethane	ug/L (ppb)	50	90	90	67-133	0
Vinyl chloride	ug/L (ppb)	50	96	95	73-132	1
Bromomethane Chloroethane	ug/L (ppb) ug/L (ppb)	50 50	106 98	107 97	69-123 68-126	1
Trichlorofluoromethane	ug/L (ppb)	50	100	99	70-132	1
Acetone	ug/L (ppb)	250	92	95	44-145	3
1,1-Dichloroethene	ug/L (ppb)	50	95	94	75-119	1
Methylene chloride	ug/L (ppb)	50	90	93	63-132	3
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	92	94	70-122	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	95	95	76-118	0
1,1-Dichloroethane	ug/L (ppb)	50	91	92	80-116	1
2,2-Dichloropropane	ug/L (ppb)	50	95	94	62-141	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	94	81-111	0
Chloroform	ug/L (ppb)	50	90	91	81-109	1
2-Butanone (MEK)	ug/L (ppb)	250	98	101	53-140	3
1,2-Dichloroethane (EDC) 1,1,1-Trichloroethane	ug/L (ppb) ug/L (ppb)	50 50	91 98	93 98	79-109 80-116	2 0
1,1-Dichloropropene	ug/L (ppb)	50 50	96	98 97	78-112	1
Carbon tetrachloride	ug/L (ppb)	50	97	98	72-128	1
Benzene	ug/L (ppb)	50	88	89	81-108	1
Trichloroethene	ug/L (ppb)	50	93	93	77-108	0
1,2-Dichloropropane	ug/L (ppb)	50	93	95	82-109	2
Bromodichloromethane	ug/L (ppb)	50	94	96	76-120	2
Dibromomethane	ug/L (ppb)	50	89	91	80-110	2
4-Methyl-2-pentanone	ug/L (ppb)	250	101	103	59-142	2
cis-1,3-Dichloropropene	ug/L (ppb)	50	98	101	76-128	3
Toluene	ug/L (ppb)	50	100	99	83-108	1
trans-1,3-Dichloropropene	ug/L (ppb)	50	107	107	76-128	0
1,1,2-Trichloroethane	ug/L (ppb)	50 250	99	100	82-110	1
2-Hexanone 1,3-Dichloropropane	ug/L (ppb)	250 50	96 98	97 99	53-145 83-110	1
Tetrachloroethene	ug/L (ppb) ug/L (ppb)	50	98 97	99 95	78-109	2
Dibromochloromethane	ug/L (ppb)	50	107	109	63-140	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	105	106	85-113	ĩ
Chlorobenzene	ug/L (ppb)	50	96	95	84-108	1
Ethylbenzene	ug/L (ppb)	50	103	101	84-110	2
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	103	102	76-125	1
m,p-Xylene	ug/L (ppb)	100	103	102	84-112	1
o-Xylene	ug/L (ppb)	50	104	103	82-113	1
Styrene	ug/L (ppb)	50	105	106	84-116	1
Isopropylbenzene	ug/L (ppb)	50	108	106	81-122	2
Bromoform	ug/L (ppb)	50	95	98	40-161	3
n-Propylbenzene Bromobenzene	ug/L (ppb) ug/L (ppb)	50 50	108 104	105 102	81-115 80-113	3 2
1,3,5-Trimethylbenzene	ug/L (ppb)	50 50	104	102	83-117	2
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	104	103	79-118	1
1,2,3-Trichloropropane	ug/L (ppb)	50	98	97	74-116	1
2-Chlorotoluene	ug/L (ppb)	50	104	103	79-112	1
4-Chlorotoluene	ug/L (ppb)	50	106	104	81-113	2
tert-Butylbenzene	ug/L (ppb)	50	118	114	81-119	3
1,2,4-Trimethylbenzene	ug/L (ppb)	50	109	107	83-116	2
sec-Butylbenzene	ug/L (ppb)	50	115	112	83-116	3
p-Isopropyltoluene	ug/L (ppb)	50	113	110	82-119	3
1,3-Dichlorobenzene	ug/L (ppb)	50	100	99	83-111	1
1,4-Dichlorobenzene	ug/L (ppb)	50	98	98	82-109	0
1,2-Dichlorobenzene	ug/L (ppb)	50	100	100	83-111	0
1,2-Dibromo-3-chloropropane 1.2.4 Trichlorobenzene	ug/L (ppb)	50 50	110 105	113 105	62-133 77-117	3 0
1,2,4-1 richlorobenzene Hexachlorobutadiene	ug/L (ppb) ug/L (ppb)	50 50	105	105	74-117	6
Naphthalene	ug/L (ppb) ug/L (ppb)	50 50	109	104	75-131	1
1,2,3-Trichlorobenzene	ug/L (ppb)	50	109	102	82-115	1
, ,	28.2 (PPD)	50		- 52	110	-

#### 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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#### 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

March 12, 2015

Jerry Sawetz, Project Manager The Riley Group, Inc. 17522 Bothell Way NE Bothell, WA 98011

Dear Mr. Sawetz:

Included are the additional results from the testing of material submitted on February 25, 2015 from the 2015-006A, F&BI 502407 project. There are 4 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures TRG0312R.DOC

### ENVIRONMENTAL CHEMISTS

## CASE NARRATIVE

This case narrative encompasses samples received on February 25, 2015 by Friedman & Bruya, Inc. from the The Riley Group 2015-006A, F&BI 502407 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
502407 -01	P1-5
502407 -02	P1-9
502407 -03	P1-15
502407 -04	P1-18
502407 -05	P1-22
502407 -06	P1-W
502407 -07	P2-5
502407 -08	P2-10
502407 -09	P3-5
502407 -10	P3-10
502407 -11	P4-5
502407 -12	P4-10
502407 -13	P4-15
502407 -14	P4-19
502407 -15	P5-5
502407 -16	P6-5
502407 -17	P6-9
502407 -18	P6-13
502407 -19	P6-14
502407 -20	P7-5
502407 -21	P7-10
502407 -22	P7-15
502407 -23	P7-17
502407 -24	P8-5
502407 -25	P8-10
502407 -26	P8-14
502407 -27	P8-17
502407 -28	P8-W

All quality control requirements were acceptable.

#### ENVIRONMENTAL CHEMISTS

Date of Report: 03/12/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407 Date Extracted: 02/26/15 Date Analyzed: 03/12/15

#### RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx Sample Extracts Passed Through a Silica Gel Column Prior to Analysis Results Reported as ug/L (ppb)

Surrogate Sample ID Diesel Range Motor Oil Range (% Recovery) Laboratory ID  $(C_{10}-C_{25})$  $(C_{25}-C_{36})$ (Limit 51-134) **P8-W** <50 <250 87 502407-28 Method Blank <50 <250 101 05-402 MB

### ENVIRONMENTAL CHEMISTS

Date of Report: 03/12/15 Date Received: 02/25/15 Project: 2015-006A, F&BI 502407

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

Laboratory Code: L	aboratory Contro	ol Sample	Silica Gel			
-	-	_	Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Diesel Extended	ug/L (ppb)	2,500	87	92	58-134	6

#### 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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