RILEYGROUP

August 19, 2016

Mr. Rob Will
Freeway Motors
4724 Roosevelt Way Northeast
Seattle, Washington 98105

RE: Underground Storage Tank (UST) Site Assessment Report
University Volkswagen Audi
4700 Roosevelt Way Northeast
Seattle, Washington 98105
RGI Project No. 2014-068J

UCI No. NW2584

Dear Mr. Will:

The Riley Group, Inc. (RGI) is pleased to present this *Underground Storage Tank (UST) Site Assessment Report* for an abandoned UST system located on the University Volkswagen Audi property at 4700 Roosevelt Way Northeast, Seattle, King County, Washington (hereafter referred to as the Site, Figure 1).

The scope of work included documenting tank decommissioning activities and collecting site assessment samples following the removal of three gasoline USTs: two approximately 600 gallon USTs (UST1 and UST2) and a third approximately 500 gallon UST (UST3). The USTs were located in a car dealership parking lot near the corner of Roosevelt Way Northeast and Northeast 47th Street (depicted on Figure 2).

All work was performed in general accordance with Washington State Department of Ecology's (Ecology's) *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* (90-52, revised April 2003).

PROJECT BACKGROUND

The scope of work was based in part on RGI's findings, conclusions, and recommendations in the following reports, which were completed on behalf of Mr. Rob Will of Freeway Motors:

- Environmental Review dated June 26, 2014 (RGI Project No. 2014-068).
- Geophysical Survey dated August 13, 2014 (RGI Project No. 2014-068B).
- Remedial Investigation Report dated August 31, 2015 (RGI Project No. 2014-068C), which also summarized a subsurface investigation performed in 2014.
- Feasibility Study and SVE/AS Pilot Study Report dated September 30, 2015 (RGI Project No. 2014-068G).

Our findings, conclusions, and recommendations, as well as summaries of previous environmental reports/investigations performed by others with regards to the Site, are included in the above referenced reports and have been submitted under separate cover.

Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone 425.415.0551 ♦ Fax 425.415.0311

www.riley-group.com

REGULATORY FRAMEWORK

Washington's hazardous waste cleanup law, the Model Toxics Control Act (70.105D RCW), mandates the necessity for site cleanups to protect human health and the environment. The MTCA Cleanup Regulation (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.

UST DECOMMISSIONING AND REMOVAL ACTIVITIES

The USTs were not visible on the ground surface, but their fill pipes were discovered during excavation activities at the Site in June 2016. However, one empty abandoned UST was previously identified during the 2014 subsurface investigation and was scheduled to be removed during the remediation system installation.

Public utility locates were performed prior to earthwork. The earthwork contractor was IO Environmental & Infrastructure Inc. (IO) of Redmond, Washington.

Approximately 4 feet of overburden soil was removed in order to expose and locate the USTs. Petroleum odors were not observed or measured via photoionization detector (PID) during removal of the overburden soil.

A marine chemist with Northwest Marine Chemist, Inc. used a combustible gas/LEL meter to monitor the oxygen and LEL concentrations in each UST, and inerted the USTs. Two City of Seattle Fire Department representatives inspected the work in association with a UST decommissioning/removal permit. Marine Vacuum Services, Inc. (Mar-Vac) triple-rinsed and pumped sludge and rinse water out of the USTs.

The USTs were lifted from the excavation using an excavator and placed on a flatbed trailer for removal and recycling by IO. The bottom of the USTs were approximately 7 to 8 feet bgs.

UST1 and UST2 were approximately 10 feet long and 3 feet in diameter (approximately 600 gallon capacities). UST1 was empty and had been inadvertently punctured during RGI's 2014 subsurface investigation, but did not appear to have any other holes. UST2 contained approximately 8 inches of old gasoline, and had small holes on the top and sides. UST3 was approximately 8 feet long and 3 feet in diameter (approximately 500 gallon capacity). UST3 contained approximately 6 inches of a mixture of old gasoline and water, and had numerous small holes in the top and bottom. UST3 appeared less rusty than the others and may have been newer steel. The three USTs were single-walled and appeared structurally intact.

Numerous pipes were observed, of which many were determined to be associated with three pressure vessels (one for each of the USTs). These pressure vessels were approximately 20 gallons in size. The pressure vessels were historically used to store/pump fuel to the fuel

dispensers. The pressure vessel associated with UST1 had a small hole in the side and contained some residual product. The pressure vessel associated with UST2 had large holes all over it and did not contain any product. The pressure vessel associated with UST3 did not have any holes and contained some residual product.

Vent pipes appeared to continue out of the southeast corner of the excavation. Other piping continued out of the southwest corner of the excavation and was suspected to lead to the former pump island(s). The southwest corner was further excavated in order to collect soil samples beneath the product piping. No cracked piping or bad piping connections were observed in the sections of piping found in the UST excavation. However, petroleum odors and elevated PID readings were noted beneath some areas of the piping in the southwest corner of the excavation at a depth of approximately 2 feet bgs, which suggests historical leaks from the piping. All product/vent piping was removed to their point of termination.

A relatively large concrete vault was identified immediately south of the USTs. The former use of the vault is unknown, but may have been an old septic system or stormwater vault. The rectangular-shaped vault was approximately 7 feet tall, 11 feet wide, and 13 feet deep. Two round openings, likely for former piping, were observed on the north side of the vault (which was the side exposed by the UST excavation). The vault had a solid concrete lid with no openings on top. Additional excavation was completed around the northeastern and northwestern corners of the vault to depths of approximately 10 feet bgs in an attempt to identify its former use and any potential contamination sources. While petroleum odors and elevated PID readings were noted beneath the exposed northwestern portion of the vault, the nature and extent of contamination (especially depth and thickness) appeared consistent with other areas of the excavation (further discussed below). The vault did not appear to be a source of contamination.

Petroleum odors and elevated PID readings were noted beneath UST3, on the east side wall of the excavation, and on the western end of the south sidewall of the excavation. The contaminated soil appeared to range between approximately 7 and 9 feet bgs at maximum, and was primarily within the UST backfill (brown gravelly silty sand). More contaminated soils appeared grey in color. Field indications of contamination reduced within the native soil (brown medium sand), which transitioned around 9 feet bgs. Contaminated soils were also observed beneath some areas of piping in the southwest corner of the excavation, as previously mentioned.

The total depth of the UST excavation was approximately 9 to 10 feet bgs. No groundwater was encountered in the excavation.

Based on the relatively small fuel USTs, pressure vessels, and number of product lines, the UST system likely pre-dates 1970.

Site photographs documenting the UST decommissioning and removal activities are presented in Appendix A. The 30-day Notice for USTs, Site Assessment Checklist, and other UST-decommissioning-related documents are located in Appendix B.

UST Site Assessment Sampling

A Washington State Licensed Geologist and Certified UST Site Assessor from RGI, Ms. Tamara Welty, provided oversight of the UST decommissioning and removal activities, and performed confirmation sampling.

Following removal of the USTs, the bottom and sidewalls of the excavation (as well as beneath

product piping) were examined for evidence of a release. Field screening results and field observations, such as odors, soil staining, sheen, and elevated PID readings, were recorded as documentation of the conditions at the Site (discussed in the previous section).

A total of 24 discrete soil samples were collected and placed into laboratory provided sample jars for potential chemical analysis (as discussed in the following section). Samples were collected from the following areas:

- Beneath the center of each UST (soil samples UST1-Bottom, UST2-Bottom, and UST3-Bottom) at depths of approximately 9 feet bgs.
- The north sidewall of the excavation (North Sidewall 1 and North Sidewall 2) at depths of approximately 7 and 8 feet bgs, respectively.
- The east sidewall of the excavation (East Sidewall and East Sidewall-9) at depths of approximately 7 and 9 feet bgs, respectively.
- The south sidewall of the excavation beneath the concrete vault (South Sidewall 1 and South Sidewall 2) at depths of approximately 8 feet bgs.
- The west sidewall of the excavation (West Sidewall) at a depth of approximately 8 feet bgs.
- Beneath product piping (UST1-Piping, UST3-Piping, Piping-Southwest, PI1-1.5, PI2-2.5, PI3-3, and PI4-1) at depths ranging from approximately 1 to 3 feet bgs.
- Near the fill pipe of each UST (UST1-Top, UST2-Top, and UST3-Top) at depths of approximately 1 foot bgs.
- Near the northeast corner of the concrete vault (Vault-East) at a depth of approximately 9.5 feet bgs.
- Near the northwest corner of the concrete vault (Vault-West-9, Vault-West-9.5, and Vault-West-10) at depths ranging from approximately 9 to 10 feet bgs.

In addition, two product/water samples were collected from the USTs (UST2-Product and UST3-Product) for disposal, as requested by Mar-Vac.

ANALYTICAL LABORATORY TESTING

Soil samples collected for analytical testing were submitted to Friedman & Bruya, Inc. of Seattle, Washington. All samples were collected following EPA Method 5035A protocols to preserve volatiles. A total of 20 soil samples were analyzed for one or more of the following contaminants of concern using the following test methods:

- Hydrocarbon Identification (HCID) using Northwest Test Method NWTPH-HCID.
- Gasoline-range total petroleum hydrocarbons (TPH) using Northwest Test Method TPH-Gx.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Test Method 8021B.
- Diesel- and oil-range TPH using Northwest Test Method NWTPH-Dx with silica gel treatment (silica gel treatment is intended to remove naturally occurring biogenic/organic material that can result in false detections and apparent elevated concentrations of diesel- and oil-range TPH).
- Total lead (Pb) using EPA Method 200.8.

In addition, the two product samples (UST2-Product and UST3-Product) were analyzed for total lead, as requested by Mar-Vac.

ANALYTICAL LABORATORY FINDINGS

Analytical results are summarized in the attached Tables 1 and 2 and Figure 3, and are discussed below. Copies of the analytical laboratory report and associated sample chain-of-custody forms are included in Appendix C.

Eleven of the 20 soil samples selected for laboratory analysis contained concentrations below the method detection limits (not detected) of the analyzed contaminants of concern. Of the nine soil samples with detections, five contained concentrations of gasoline-range TPH, diesel-range TPH, oil-range TPH, toluene, ethylbenzene, xylenes, and/or total lead that were below the applicable MTCA Method A soil cleanup levels.

Four soil samples (East Sidewall, South Sidewall 1, Vault-West-9, and Piping-Southwest) contained concentrations of gasoline-range TPH ranging from 79 to 380 milligrams per kilogram (mg/kg), which exceeds the MTCA Method A soil cleanup level of 30 mg/kg. One of these four soil samples (Piping-Southwest) contained a benzene concentration of 0.11 mg/kg, which exceeds the MTCA Method A soil cleanup level of 0.03 mg/kg.

CONCLUSIONS AND RECOMMENDATIONS

Three abandoned gasoline UST systems were decommissioned and removed from the Site between June 14 and 16, 2016. Samples collected from the UST excavation indicate a release from one or more of the UST systems: UST3 is suspected, as well as some areas of product piping. Based on analytical laboratory results and field screening data, contaminated soil was identified in some areas of the excavation at depths ranging from approximately 7 and 9 feet bgs and beneath shallow product piping at approximately 2 feet bgs. The total depth of the UST excavation was approximately 9 to 10 feet bgs. However, a significant petroleum release from the UST system has not occurred. No groundwater was encountered in the excavation.

RGI recommends remedial action, which is currently in process at the Site (discussed in other environmental reports under separate cover, as noted above).

PROJECT LIMITATIONS

This report is the property of RGI, Freeway Motors, and their 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 University Volkswagen Audi property located at 4700 Roosevelt Way Northeast, Seattle, King County, 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 collection of samples, or other noted data sources. Conditional changes may occur through time by natural or human-made processes 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, The Riley Group, Inc. should be requested to reevaluate the recommendations in this report.

If you have any questions or need additional information, please contact the undersigned at (425) 415-0551.

Respectfully submitted,

THE RILEY GROUP, INC.

Tamara Welty, LG
Project Geologist
Washington State Site Assessor No. ICC00043434

Paul D. Riley, LG, LHG
Principal

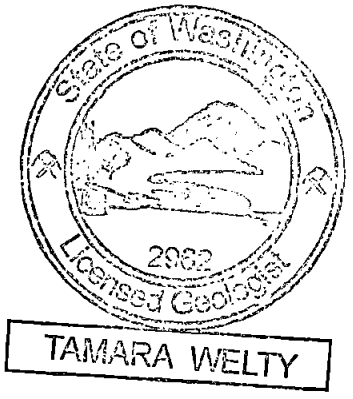
Attachments: *Figure 1, Site Vicinity Map*
Figure 2, Site and Surrounding Area
Figure 3, Site Plan with Soil and UST Product Analytical Data
Table 1, Summary of Soil Sample Analytical Laboratory Results
Table 2, Summary of UST Product Grab Sample Analytical Laboratory Results
Appendix A, Photographs
Appendix B, UST Decommissioning-Related Documentation
Appendix C, Analytical Laboratory Certificates

Distribution: *Mr. Rob Will, Freeway Motors*
Washington State Department of Ecology

If you have any questions or need additional information, please contact the undersigned at (425) 415-0551.

Respectfully submitted,

THE RILEY GROUP, INC.



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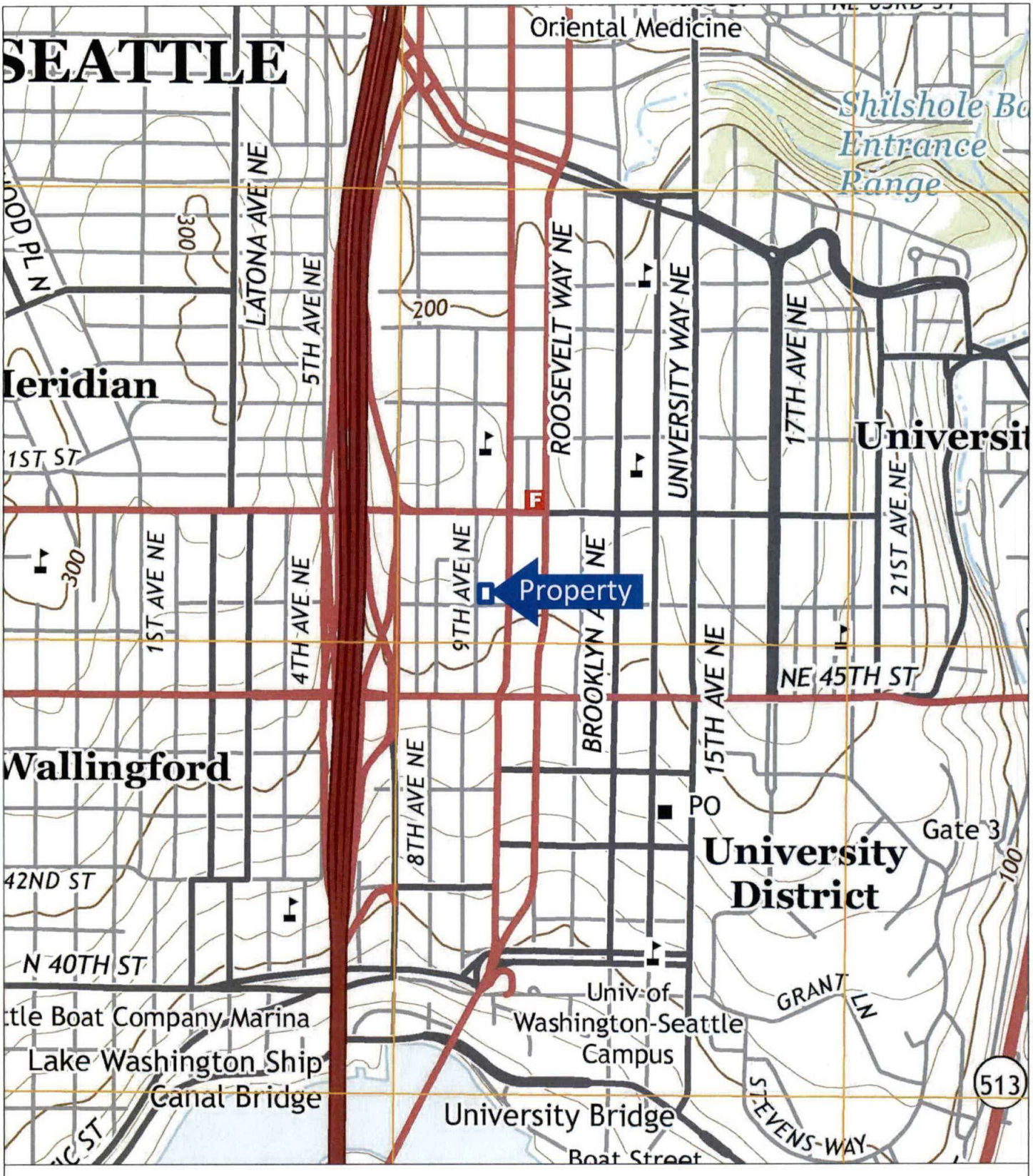


USGS, 2014, Seattle North, Washington
7.5-Minute Quadrangle

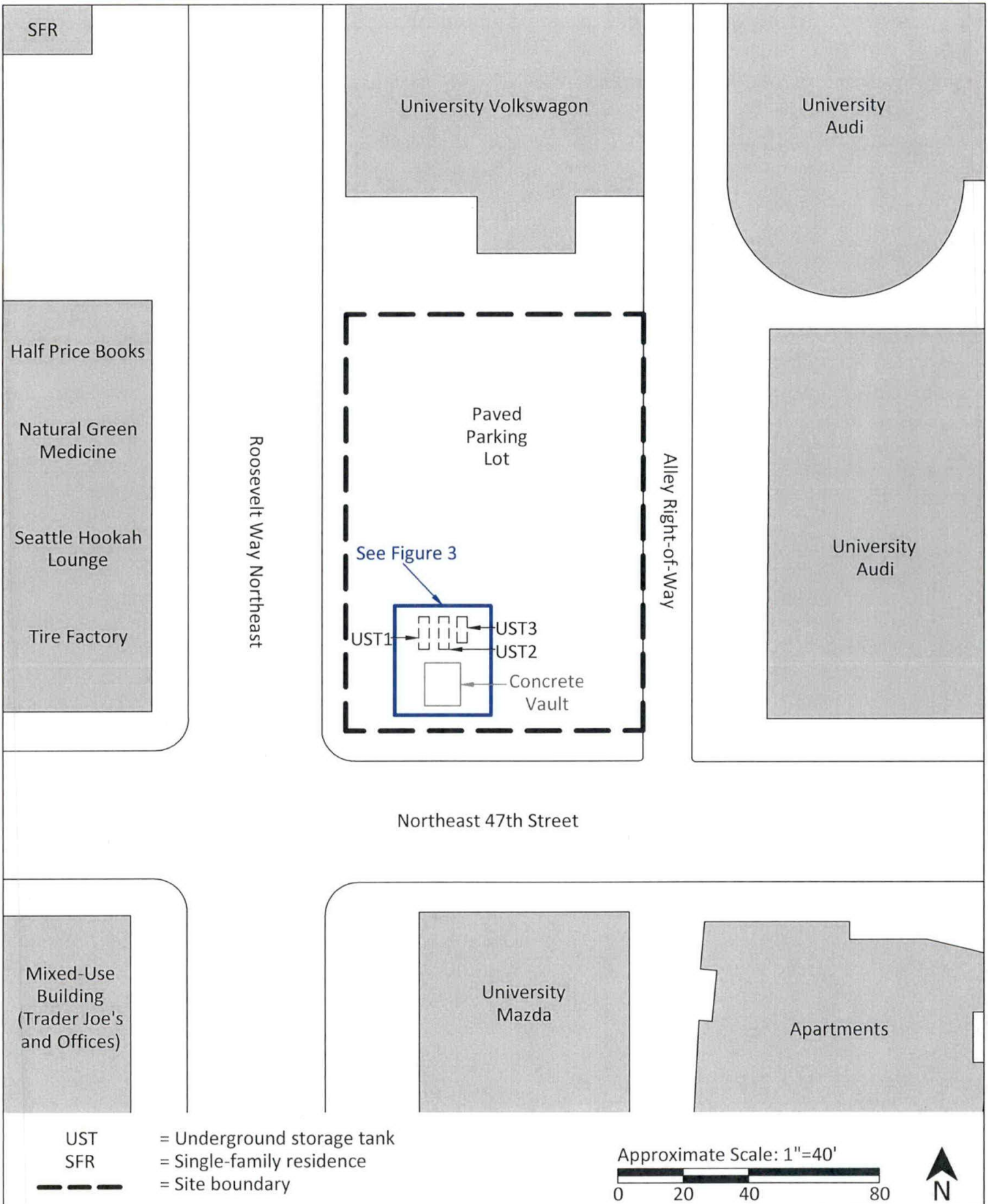
Approximate Scale: 1"=1000'

0 500 1000 2000

N

RILEYGROUP
Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

University VW - Audi Property		Figure 1
RGI Project Number 2014-068J	Site Vicinity Map	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		



UST = Underground storage tank
SFR = Single-family residence
= Site boundary

Approximate Scale: 1"=40'

0 20 40 80

N

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Bothell, Washington 98011
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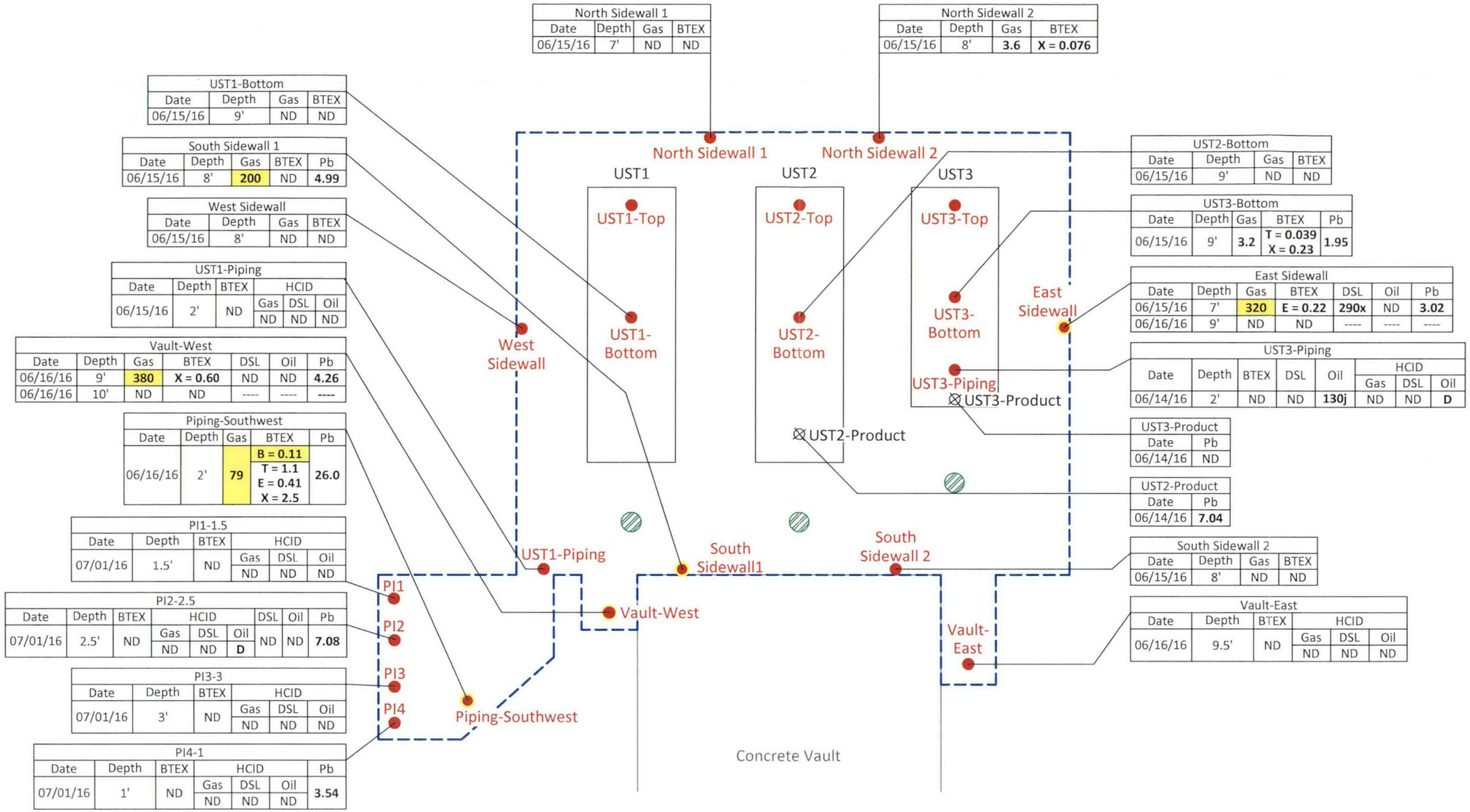
University VW - Audi Property		Figure 2
RGI Project Number 2014-068J	Site and Surrounding Area	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		



North Sidewall 1			
Date	Depth	Gas	BTEX
06/15/16	7'	ND	ND

North Sidewall 2			
Date	Depth	Gas	BTEX
06/15/16	8'	**3.6**	**X = 0.076**

UST1-Bottom			
Date	Depth	Gas	BTEX
06/15/16	9'	ND	ND

South Sidewall 1				
Date	Depth	Gas	BTEX	Pb
06/15/16	8'	**200**	ND	**4.99**

West Sidewall			
Date	Depth	Gas	BTEX
06/15/16	8'	ND	ND

UST1-Piping					
Date	Depth	BTEX	HCID		
			Gas	DSL	Oil
06/15/16	2'	ND	ND	ND	ND

Vault-West						
Date	Depth	Gas	BTEX	DSL	Oil	Pb
06/16/16	9'	**380**	**X = 0.60**	ND	ND	**4.26**
06/16/16	10'	ND	ND	----	----	**----**

Piping-Southwest				
Date	Depth	Gas	BTEX	Pb
06/16/16	2'	**79**	**B = 0.11** **T = 1.1** **E = 0.41** **X = 2.5**	**26.0**

PI1-1.5					
Date	Depth	BTEX	HCID		
			Gas	DSL	Oil
07/01/16	1.5'	ND	ND	ND	ND

PI2-2.5								
Date	Depth	BTEX	HCID			DSL	Oil	Pb
			Gas	DSL	Oil			
07/01/16	2.5'	ND	ND	ND	**D**	ND	ND	**7.08**

PI3-3					
Date	Depth	BTEX	HCID		
			Gas	DSL	Oil
07/01/16	3'	ND	ND	ND	ND

PI4-1						
Date	Depth	BTEX	HCID			Pb
			Gas	DSL	Oil	
07/01/16	1'	ND	ND	ND	ND	**3.54**

UST2-Bottom			
Date	Depth	Gas	BTEX
06/15/16	9'	ND	ND

UST3-Bottom				
Date	Depth	Gas	BTEX	Pb
06/15/16	9'	**3.2**	**T = 0.039** **X = 0.23**	**1.95**

East Sidewall						
Date	Depth	Gas	BTEX	DSL	Oil	Pb
06/15/16	7'	**320**	**E = 0.22**	**290x**	ND	**3.02**
06/16/16	9'	ND	ND	----	----	----

UST3-Piping							
Date	Depth	BTEX	DSL	Oil	HCID		
					Gas	DSL	Oil
06/14/16	2'	ND	ND	**130j**	ND	ND	**D**

UST3-Product	
Date	Pb
06/14/16	ND

UST2-Product	
Date	Pb
06/14/16	**7.04**

South Sidewall 2			
Date	Depth	Gas	BTEX
06/15/16	8'	ND	ND

Vault-East					
Date	Depth	BTEX	HCID		
			Gas	DSL	Oil
06/16/16	9.5'	ND	ND	ND	ND

= Soil and UST Product analytical results in milligrams/kilogram (mg/kg)

Gas/DSL/Oil = Gasoline/diesel/oil total petroleum hydrocarbons (TPH)
BTEX = Benzene, toluene, ethylbenzene, xylenes
HCID = Hydrocarbon identification
Pb = Lead
ND = Not detected above laboratory method detection limit
---- = Not analyzed or not applicable
Bold results indicate concentration above laboratory detection limits
Bold and yellow highlighted results indicate soil concentration that exceeds MTCA cleanup levels

= Pressure Vessel
= UST Product Sample collected by RGI, June 2016
= Confirmation Soil Sample collected by RGI, June/July 2016
= Approximate Location of June/July 2016 Excavation

Approximate Scale: 1"=4'
0 2 4 8
N

RILEYGROUP
Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

University VW - Audi Property | Figure 3

RGI Project Number: 2014-068J

Site Plan with Soil and UST Product Analytical Data

Date Drawn: 08/2016

Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105

Table 1. Summary of Soil Sample Analytical Laboratory Results
University VW-Audi Property
4700 Roosevelt Way Northeast, Seattle, Washington 98105
The Riley Group, Inc. Project No. 2014-068J

Sample Number	Sample Depth	Sample Date	PID	Gasoline TPH	BTEX				Diesel TPH w/silica gel	Oil TPH w/silica gel	HCID			Total Pb
					B	T	E	X			Gasoline	Diesel	Heavy Oil	
UST1-Top	1'	06/14/16	0.0	----	----	----	----	----	----	----	----	----	----	----
UST1-Piping	2'	06/15/16	0.0	----	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	ND<20	ND<50	ND<250	----
UST1-Bottom	9'	06/15/16	0.0	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	----	----	----	----
UST2-Top	1'	06/14/16	0.0	----	----	----	----	----	----	----	----	----	----	----
UST2-Bottom	9'	06/15/16	0.2	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	----	----	----	----
UST3-Top	1'	06/14/16	0.0	----	----	----	----	----	----	----	----	----	----	----
UST3-Piping	2'	06/14/16	0.0	----	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	**130j**	ND<20	ND<50	**D>250**	----
UST3-Bottom	9'	06/15/16	2.9	**3.2**	ND<0.02	**0.039**	ND<0.02	**0.23**	----	----	----	----	----	**1.95**
North Sidewall 1	7'	06/15/16	0.1	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	----	----	----	----
North Sidewall 2	8'	06/15/16	0.0	**3.6**	ND<0.02	ND<0.02	ND<0.02	**0.076**	----	----	----	----	----	----
East Sidewall	7'	06/15/16	41.6	**320**	ND<0.02j	ND<0.1	**0.22**	ND<0.3	**290x**	ND<250	----	----	----	**3.02**
East Sidewall-9	9'	06/16/16	9.4	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	----	----	----	----
South Sidewall 1	8'	06/15/16	30.1	**200**	ND<0.02j	ND<0.1	ND<0.1	ND<0.3	----	----	----	----	----	**4.99**
South Sidewall 2	8'	06/15/16	0.1	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	----	----	----	----
West Sidewall	8'	06/15/16	0.0	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	----	----	----	----
Vault-East	9.5'	06/16/16	0.0	----	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	ND<20	ND<50	ND<250	----
Vault-West-9	9'	06/16/16	60.6	**380**	ND<0.02j	ND<0.1	ND<0.1	**0.60**	ND<50	ND<250	----	----	----	**4.26**
Vault-West-9.5	9.5'	06/16/16	1.5	----	----	----	----	----	----	----	----	----	----	----
Vault-West-10	10'	06/16/16	0.0	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	----	----	----	----
Piping-Southwest	2'	06/16/16	25.9	**79**	**0.11**	**1.1**	**0.41**	**2.5**	----	----	----	----	----	**26.0**
PI1-1.5	1.5'	07/01/16	0.0	----	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	ND<20	ND<50	ND<250	----
PI2-2.5	2.5'	07/01/16	0.0	----	ND<0.02	ND<0.02	ND<0.02	ND<0.06	ND<50	ND<250	ND<20	ND<50	**D>250**	**7.08**
PI3-3	3'	07/01/16	0.0	----	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	ND<20	ND<50	ND<250	----
PI4-1	1'	07/01/16	0.0	----	ND<0.02	ND<0.02	ND<0.02	ND<0.06	----	----	ND<20	ND<50	ND<250	**3.54**
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses				**100/30[1]**	**0.03**	**7**	**6**	**9**	**2,000**		**100/30[1]**	**2,000**		**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).

PID = Photoionization detector.

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 silica gel treatment.

Gasoline, Diesel, and Oil HCID (hydrocarbon identification) determined using Northwest Test Method NWTPH-HCID.

Total Pb (total lead) determined using EPA Method 200.8.

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

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

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).

[1] 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 UST Product Grab Sample Analytical Laboratory Results
University VW-Audi Property
4700 Roosevelt Way Northeast, Seattle, WA 98105
The Riley Group, Inc. Project No. 2014-068J

Sample Number	Sample Date	Total Pb
UST2-Product	06/14/16	**7.04**
UST3-Product	06/14/16	ND<1

Notes:

Unless otherwise noted, all analytical results are given in milligrams per kilogram (mg/kg), equivalent to parts per million (ppm).

Total Pb (total lead) determined using EPA Method 200.8.

ND = Not detected at noted analytical detection limit.

Bold results indicated concentrations above laboratory detection limits.

Photograph 1: The three uncovered UST fill pipes.

Photograph 2: Marine chemist inserting the USTs.

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Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

University VW - Audi Property		Figure A-1
RGI Project Number 2014-068J	Site Photographs	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		

Photograph 3: Mar-Vac pumping and rinsing the USTs.

Photograph 4: One of the uncovered USTs.

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University VW - Audi Property		Figure A-2
RGI Project Number 2014-068J	Site Photographs	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		

Photograph 5: One of the uncovered pressure vessels.

Photograph 6: The pressure vessel associated with UST2 with large holes.

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Fax: 425.415.0311

University VW - Audi Property		Figure A-3
RGI Project Number 2014-068J	Site Photographs	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		

Photograph 7: UST2 with small holes marked in white paint.

Photograph 8: UST3 with numerous small holes marked in white paint.

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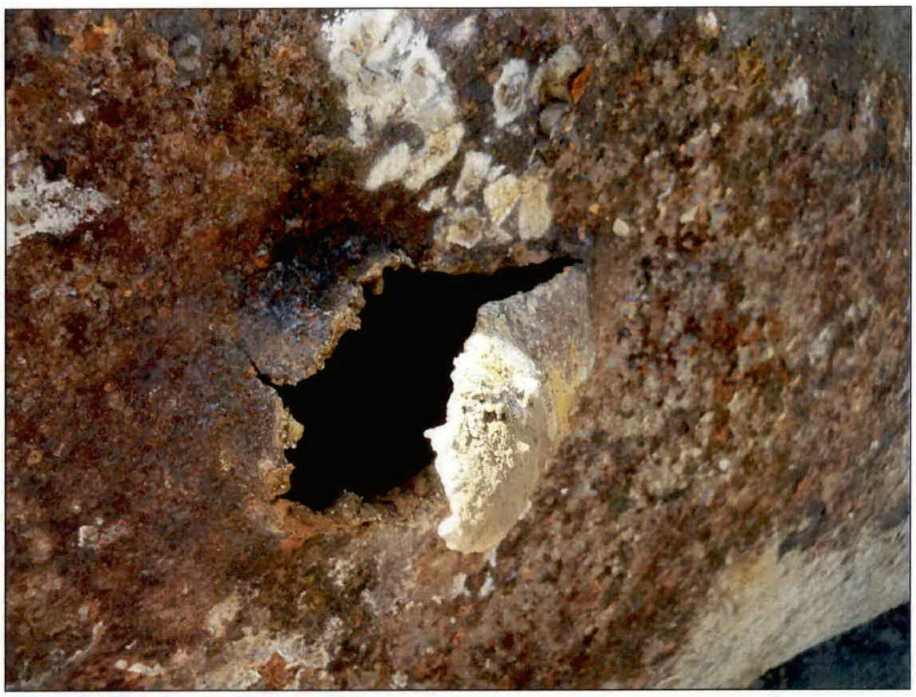
Fax: 425.415.0311

University VW - Audi Property		Figure A-4
RGI Project Number 2014-068J	Site Photographs	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		



Photograph 9: Borehole in UST1.

Photograph 10: Excavation around the corner of the discovered concrete vault. Piping visible includes product piping from UST to former pump islands.

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University VW - Audi Property		Figure A-5
RGI Project Number 2014-068J	Site Photographs	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		

Photograph 11: Excavation in the southwestern corner where product piping was located.

Photograph 12: Piping in the southwestern corner of the UST excavation.

RILEYGROUP
Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

University VW - Audi Property		Figure A-6
RGI Project Number 2014-068J	Site Photographs	Date Drawn: 08/2016
Address: 4700 Roosevelt Way Northeast , Seattle, Washington 98105		

DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: _____
County: _____

30-DAY NOTICE
FOR UNDERGROUND STORAGE TANKS

This form provides Ecology 30-days' advanced notice for the following projects, as required by Chapter 173-360 WAC. Instructions are found on the back page.

Please ✓ the appropriate box: ☐ Intent to Install ☒ Intent to Close ☐ Change-in-Service

I. SITE INFORMATION		II. OWNER/OPERATOR INFORMATION	
Tag or UBI # (if applicable):		Owner/Operator Name:	N/A
UST ID # (if applicable):		Business Name:	
Site Name:	UW AUDI DEALERSHIP	Mailing Address:	
Site Address:	4701 11th AVE NE	City: State: Zip:	
City:	SEATTLE	Phone:	
Phone:	206 · 634 - 3322	Email:	

III. CERTIFIED SERVICE PROVIDER(S)

(Check the appropriate boxes. If more than one service provider is required for this project, fill out both sections.)

Note: Individuals performing UST services MUST be ICC-certified or have passed another qualifying exam approved by the Department of Ecology.

1) ☐ Installer ☒ Decommissioner ☐ Site Assessor

Company Name: IO ENVIRONMENTAL	Certification Type: UST DECOMMISSIONER
Service Provider Name: SCOT OVENDICK	Cert. No.: 8178938 Exp. Date: 10/16
Provider Phone: (425) 417-5344	Provider Email: Scoto@iosdv.com

2) ☐ Installer ☐ Decommissioner ☒ Site Assessor

Company Name: THE RILEY GROUP	Certification Type: SITE ASSESSOR
Service Provider Name: TAMARA WELTY	Cert. No.: FCCDO043434 Exp. Date: 3/18
Provider Phone: 425 415 - 0551	Provider Email: TWELTY@RILEY-GROUP.COM

IV. TANK INFORMATION

TANK ID	SUBSTANCE STORED	TANK CAPACITY	DATE PROJECT IS EXPECTED TO BEGIN	COMMENTS
UNKNOWN	GASOLINE	1-2K	6/15/16	USTs (3) DISCOVERED DURING SITE CONSTRUCTION EXCAVATION BELIEVED TO BE INSTALLED PRE-1960's
UNKNOWN	GASOLINE	1-2K	6/15/16	
UNKNOWN	GASOLINE	1-2K	6/15/16	

George D Blair - Northwest Marine Chemist, Inc.
P. O. Box 7084, Tacoma, WA 98406
Office: 253-752-0149 Fax: 253-759-3523
Email: gbcmc637@gmail.com

MARINE CHEMIST CERTIFICATE

Serial 637-00577

I O Environmental	University Volkswagon	Jun 14, 2016
Survey Requested by	Vessel Owner Agent	Date
Tank Farm	Underground Storage Tank	4726 Roosevelt Way NE
Vessel	Type of Vessel	Specific Location of Vessel
Gasoline	O_2, LEL, Visual	9:46
Last Three 3 Loadings	Tests Performed	Time Survey Completed

Inspected Spaces:

Group 1. 3-1,000-2,000 gal. UST's

Safety Designations:

NOT SAFE FOR WORKERS

SAFE FOR LIMITED HOT WORK

LIMITATIONS:

Specific Location: *At job site.*

Hot Work Type: *These tanks have been purged with CO2 to less than 6% Oxygen and are safe for excavation and transportation.*

INERTED

Inert Medium: *Carbon Dioxide (CO2)*

Method for maintaining safe conditions: *All openings are and must remain secured.*

Measures for safe disposal of inert gas: *Ventilate and test for 20.8% Oxygen to properly dispose of inerting gas.*

Test Results	% O_2	% LEL
Inspected spaces group 1	<3.5%	N/A

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 or the authority having jurisdiction as applicable 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 NFP 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 shall be 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 shall not be 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 be 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, lube 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 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 shall be limited or restricted.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot 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."

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.

Authorized Representative	Jun 14, 2016 Date	I O Environmental Company	Signed Marine Chemist	637 CMC No.

DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: _____
RECEIVED
County: _____
AUG 31 2016

SITE CHECK/SITE ASSESSMENT CHECKLIST
FOR UNDERGROUND STORAGE TANKS

Department of Ecology
Toxics Cleanup Program

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

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:	None (Inactive)	Owner/Operator Name:	Rob Will
UST ID #:	None (Inactive)	Business Name:	Freeway Motors
Site Name:	University Volkswagen Audi	Address:	4724 Roosevelt Way NE
Site Address:	4700 Roosevelt Way NE	City: Seattle	State: WA Zip: 98105
City:	Seattle WA 98105	Phone:	206-634-3322
Phone:		Email:	rob@uvwaudi.com

III. CERTIFIED SITE ASSESSOR			
Service Provider Name:	Tamara Welty	Company Name:	The Riley Group Inc.
Cell Phone: 425.415.0551	Email: twelty@riley-group.com	Address:	17522 Bothell Way NE
Certification #:	ICC00043434 Exp. Date: 3/18	City: Bothell	State: WA Zip: 98011

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST1	~600 gallons	gasoline	6/14/16 - 6/16/16
UST2	~600 gallons	"	"
UST3	~500 gallons	"	"

V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)

- [x] Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).
- [ ] Release investigation following a failed tank and/or line tightness test.
- [ ] Release investigation following discovery of contaminated soil and/or groundwater.
- [ ] Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.
- [ ] 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).
- [ ] Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.
- [ ] 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.	☑	☐
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	☑	☐
3. A summary of UST system data is provided (Section 3.1)	☑	☐
4. The soils characteristics at the UST site are described. (Section 5.2)	☑	☐
5. Is there any apparent groundwater in the tank excavation?	☐	☑
6. A brief description of the surrounding land use is provided. (Section 3.1)	☑	☐
7. The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	☑	☐
8. The following items are provided in one or more sketches:		
• Location and ID number for all field samples collected	☑	☐
• If applicable, groundwater samples are distinguished from soil samples	☑	☐
• Location of samples collected from stockpiled excavated soil	☑	☐
• Tank and piping locations and limits of excavation pit	☑	☐
• Adjacent structures and streets	☑	☐
• Approximate locations of any on-site and nearby utilities	☑	☐
9. If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4)	☑	☐
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.	☑	☐
11. Any factors that may have compromised the quality of the data or validity of the results are described.	☑	☐
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	☑	☐

VII. Required Signatures

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

Tamara Welty	Tamara Welty	8/4/16
Print or Type Name	Signature of Certified Site Assessor	Date

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

July 14, 2016

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

Dear Mr Riley:

Included are the results from the testing of material submitted on July 1, 2016 from the UW Audi 2014-068J, F&BI 607020 project. There are 11 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: Tamara Welty
TRG0714R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 1, 2016 by Friedman & Bruya, Inc. from the The Riley Group UW Audi 2014-068J, F&BI 607020 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
607020 -01	PI1-1.5
607020 -02	PI2-2.5
607020 -03	PI3-3
607020 -04	PI4-1

All quality control requirements were acceptable.

Date of Report: 07/14/16
Date Received: 07/01/16
Project: UW Audi 2014-068J, F&BI 607020
Date Extracted: 07/05/16
Date Analyzed: 07/05/16

RESULTS FROM THE ANALYSIS OF SOIL 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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 53-144)
PI1-1.5 607020-01	ND	ND	ND	98
PI2-2.5 607020-02	ND	ND	D	108
PI3-3 607020-03	ND	ND	ND	100
PI4-1 607020-04	ND	ND	ND	97
Method Blank 06-1350 MB	ND	ND	ND	98

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 07/14/16
Date Received: 07/01/16
Project: UW Audi 2014-068J, F&BI 607020
Date Extracted: 07/05/16
Date Analyzed: 07/05/16 and 07/06/15

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES USING METHOD 8021B

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

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Surrogate (% Recovery) (Limit 50-132)
PI1-1.5 607020-01	<0.02	<0.02	<0.02	<0.06	86
PI2-2.5 607020-02	<0.02	<0.02	<0.02	<0.06	89
PI3-3 607020-03	<0.02	<0.02	<0.02	<0.06	86
PI4-1 607020-04	<0.02	<0.02	<0.02	<0.06	90
Method Blank 06-1332 MB	<0.02	<0.02	<0.02	<0.06	89

Date of Report: 07/14/16
Date Received: 07/01/16
Project: UW Audi 2014-068J, F&BI 607020
Date Extracted: 07/11/16
Date Analyzed: 07/11/16

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)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 56-165)
PI2-2.5 607020-02	<50	<250	131
Method Blank 06-1397 MB	<50	<250	147

Analysis For Total Metals By EPA Method 200.8

Client ID:	PI2-2.5	Client:	The Riley Group
Date Received:	07/01/16	Project:	UW Audi 2014-068J, F&BI 607020
Date Extracted:	07/01/16	Lab ID:	607020-02
Date Analyzed:	07/05/16	Data File:	607020-02.090
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	7.08

Analysis For Total Metals By EPA Method 200.8

Client ID:	PI4-1	Client:	The Riley Group
Date Received:	07/01/16	Project:	UW Audi 2014-068J, F&BI 607020
Date Extracted:	07/01/16	Lab ID:	607020-04
Date Analyzed:	07/05/16	Data File:	607020-04.091
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	3.54

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	UW Audi 2014-068J, F&BI 607020
Date Extracted:	07/05/16	Lab ID:	I6-435 mb
Date Analyzed:	07/05/16	Data File:	I6-435 mb.031
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Date of Report: 07/14/16
Date Received: 07/01/16
Project: UW Audi 2014-068J, F&BI 607020

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

Laboratory Code: 607020-02 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	93	66-121
Toluene	mg/kg (ppm)	0.5	98	72-128
Ethylbenzene	mg/kg (ppm)	0.5	99	69-132
Xylenes	mg/kg (ppm)	1.5	98	69-131

Date of Report: 07/14/16
Date Received: 07/01/16
Project: UW Audi 2014-068J, F&BI 607020

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

Laboratory Code: 607020-02 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	94	100	63-146	6

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	97	79-144

Date of Report: 07/14/16
Date Received: 07/01/16
Project: UW Audi 2014-068J, F&BI 607020

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

Laboratory Code: 607027-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	7.00	81	79	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	102	85-115

Data Qualifiers & Definitions

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

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.

607020

SAMPLE CHAIN OF CUSTODY

ME 07-01-16

BEI / VSI

Page # 1 of 1

Send Report To PAUL RILEY / TAMARA WEST

Company THE RILEY GROUP, INC

Address 17522 Bothell Way NE

City, State, ZIP Bothell, WA 98011

Phone # (425) 415-0551 Fax #

SAMPLERS (signature) Steve Riley

PROJECT NAME/NO. UW AUPI 2014-068 J

PO#

REMARKS

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
- Rush charges authorized by

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Total Lead	HCID	Notes
PI1-1.5	01A-E	7/1/16	8:14	soil	5			⊗					⊗	
PI2-2.5	02		9:10		5	■		⊗				⊗	⊗	Added 7/6/16 (PP)
PI3-3	03		9:24		5			⊗					⊗	
PI4-1	04		9:41		5			⊗				⊗	⊗	

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

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		PAUL RILEY	Riley Group	7/1/16	10:50
Received by:		DAVID	FedEx	7-1-16	13:00
Relinquished by:					
Received by:					

Samples received at 3 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 29, 2016

Tamara Welty, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Ms Welty:

Included are the results from the testing of material submitted on June 16, 2016 from the UW Audi 2014-068F, F&BI 606301 project. There are 15 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: Paul Riley
TRG0629R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 16, 2016 by Friedman & Bruya, Inc. from the The Riley Group UW Audi 2014-068F, F&BI 606301 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
606301 -01	UST1-Top
606301 -02	UST2-Top
606301 -03	UST3-Top
606301 -04	UST3-Piping
606301 -05	UST2-Bottom
606301 -06	UST3-Bottom
606301 -07	North Sidewall 1
606301 -08	North Sidewall 2
606301 -09	South Sidewall 2
606301 -10	East Sidewall
606301 -11	UST1-Bottom
606301 -12	West Sidewall
606301 -13	South Sidewall 1
606301 -14	UST1-Piping
606301 -15	East Sidewall-9
606301 -16	Vault-East

The benzene in samples East Sidewall and South Sidewall 1 and the motor oil in sample UST3-Piping were reported below the standard reporting limit. The data were flagged accordingly.

All quality control requirements were acceptable.

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301
Date Extracted: 06/22/16
Date Analyzed: 06/22/16

RESULTS FROM THE ANALYSIS OF SOIL 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

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 53-144)
UST3-Piping 606301-04	ND	ND	D	99
UST1-Piping 606301-14	ND	ND	ND	96
Vault-East 606301-16	ND	ND	ND	98
Method Blank 06-1274 MB	ND	ND	ND	97

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301
Date Extracted: 06/22/16
Date Analyzed: 06/22/16

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES USING METHOD 8021B

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

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Surrogate (% Recovery) (Limit 50-150)
UST3-Piping 606301-04	<0.02	<0.02	<0.02	<0.06	72
UST1-Piping 606301-14	<0.02	<0.02	<0.02	<0.06	71
Vault-East 606301-16	<0.02	<0.02	<0.02	<0.06	71
Method Blank 06-1244 MB	<0.02	<0.02	<0.02	<0.06	73

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301
Date Extracted: 06/20/16
Date Analyzed: 06/20/16

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

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

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
UST2-Bottom 606301-05	<0.02	<0.02	<0.02	<0.06	<2	76
UST3-Bottom 606301-06	<0.02	0.039	<0.02	0.23	3.2	75
North Sidewall 1 606301-07	<0.02	<0.02	<0.02	<0.06	<2	76
North Sidewall 2 606301-08	<0.02	<0.02	<0.02	0.076	3.6	78
South Sidewall 2 606301-09	<0.02	<0.02	<0.02	<0.06	<2	77
East Sidewall 606301-10 1/5	<0.02 j	<0.1	0.22	<0.3	320	79
UST1-Bottom 606301-11	<0.02	<0.02	<0.02	<0.06	<2	78
West Sidewall 606301-12	<0.02	<0.02	<0.02	<0.06	<2	77
South Sidewall 1 606301-13 1/5	<0.02 j	<0.1	<0.1	<0.3	200	78
East Sidewall-9 606301-15	<0.02	<0.02	<0.02	<0.06	<2	78
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	75

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301
Date Extracted: 06/17/16 and 06/23/16
Date Analyzed: 06/17/16 and 06/23/16

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)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
UST3-Piping 606301-04	<50	130 j	95
East Sidewall 606301-10	290 x	<250	123
Method Blank 06-1231 MB	<50	<250	112
Method Blank 06-1272 MB2	<50	<250	109

Analysis For Total Metals By EPA Method 200.8

Client ID:	UST3-Bottom	Client:	The Riley Group
Date Received:	06/16/16	Project:	UW Audi 2014-068F, F&BI 606301
Date Extracted:	06/20/16	Lab ID:	606301-06
Date Analyzed:	06/20/16	Data File:	606301-06.109
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.95

Analysis For Total Metals By EPA Method 200.8

Client ID:	East Sidewall	Client:	The Riley Group
Date Received:	06/16/16	Project:	UW Audi 2014-068F, F&BI 606301
Date Extracted:	06/20/16	Lab ID:	606301-10
Date Analyzed:	06/20/16	Data File:	606301-10.112
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	3.02

Analysis For Total Metals By EPA Method 200.8

Client ID:	South Sidewall 1	Client:	The Riley Group
Date Received:	06/16/16	Project:	UW Audi 2014-068F, F&BI 606301
Date Extracted:	06/20/16	Lab ID:	606301-13
Date Analyzed:	06/20/16	Data File:	606301-13.113
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	4.99

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	UW Audi 2014-068F, F&BI 606301
Date Extracted:	06/20/16	Lab ID:	I6-391 mb
Date Analyzed:	06/20/16	Data File:	I6-391 mb.091
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES USING EPA METHOD 8021B

Laboratory Code: 606301-04 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	86	69-120
Toluene	mg/kg (ppm)	0.5	91	70-117
Ethylbenzene	mg/kg (ppm)	0.5	93	65-123
Xylenes	mg/kg (ppm)	1.5	93	66-120

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301

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: 606301-05 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	97	69-120
Toluene	mg/kg (ppm)	0.5	98	70-117
Ethylbenzene	mg/kg (ppm)	0.5	99	65-123
Xylenes	mg/kg (ppm)	1.5	98	66-120
Gasoline	mg/kg (ppm)	20	100	71-131

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301

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

Laboratory Code: 606307-03 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	121	128	73-135	6

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	125	74-139

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301

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

Laboratory Code: 606374-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	118	123	63-146	4

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	117	79-144

Date of Report: 06/29/16
Date Received: 06/16/16
Project: UW Audi 2014-068F, F&BI 606301

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

Laboratory Code: 606301-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	1.83	100	103	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	100	85-115

Data Qualifiers & Definitions

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

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.

606301

SAMPLE CHAIN OF CUSTODY

ME 06/16/16 US3/A05

Report To: Tamara Welty
Company: The Riley Group Inc.
Address: 17522 Bothell Way NE
City, State, ZIP: Bothell WA 98011
Phone: 425-415-0551 Email: twelty@riley-group.com

SAMPLERS (signature): Tamara Welty [redacted]

Page # 1 of 2

PROJECT NAME: UW Andi

PO #: 2014-068F

REMARKS:

INVOICE TO:

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel*	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Lead	HCID			Notes* x=added 6/22 per TW ME.
UST1-Top	01 A-E	6/14/16	7:25	Soil	5												
UST2-Top	02	↓	7:30	↓	↓												
UST3-Top	03	↓	7:35	↓	↓												
UST3-Piping	04	↓	10:20	↓	↓		~~X~~		X					X			~~X~~ -ADDED 6/23 w/silica gel PR
UST2-Bottom	05	6/15/16	13:30	↓	↓			⊗	⊗				~~⊗~~				
UST3-Bottom	06	↓	13:35	↓	↓			⊗	⊗				⊗				
North Sidewall 1	07	↓	13:40	↓	↓			⊗	⊗				~~⊗~~				
North sidewall 2	08	↓	13:45	↓	↓			⊗	⊗				~~⊗~~				
South Sidewall 2	09	↓	14:15	↓	↓			⊗	⊗				~~⊗~~				
East Sidewall	10	↓	14:05	↓	↓		⊗	⊗	⊗				⊗				

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Tamara Welty	Tamara Welty	RGI	6/16/16	11:30
Received by: [signature]	James Bruya	FEB	6/16	11:30
Relinquished by:				
Received by:		Samples received at 5 °C		

606301

SAMPLE CHAIN OF CUSTODY HE 06/16/16

053 /1405

Page # 2 of 2

Send Report To Tamara Welty
Company The Riley Group Inc.
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone # 425-415-0551 Fax #

SAMPLERS (signature) Tamara Welty
PROJECT NAME/NO. 2014-068F
PO #
REMARKS

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Lead	HCID					Notes
UST1-Bottom	11 HE	6/15/16	14:40	Soil	5		⊗	⊗				⊗						X=added 6/17
West Sidewall	12		14:50				⊗	⊗				⊗						
South Sidewall 1	13		15:00				⊗	⊗				⊗						
UST1-Piping	14		15:15					X					X					
East Sidewall-9	15	6/16/16	8:40				⊗	⊗										
Vault-East	16		9:00					X					X					

ANALYSES REQUESTED

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Tamara Welty	Tamara Welty	RGI	6/16/16	11:30
Received by:		James Bruya	F&B	6/16	11:30
Relinquished by:					
Received by:			Samples received at 5 °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 24, 2016

Tamara Welty, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Ms Welty:

Included are the results from the testing of material submitted on June 17, 2016 from the 2014-068F, F&BI 606317 project. There are 10 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: Paul Riley
TRG0624R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 17, 2016 by Friedman & Bruya, Inc. from the The Riley Group 2014-068F, F&BI 606317 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
606317 -01	Vault-West-9
606317 -02	Vault-West-9.5
606317 -03	Vault-West-10
606317 -04	Piping-Southwest

All quality control requirements were acceptable.

Date of Report: 06/24/16
Date Received: 06/17/16
Project: 2014-068F, F&BI 606317
Date Extracted: 06/21/16
Date Analyzed: 06/21/16 and 06/22/16

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

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

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
Vault-West-9 606317-01 1/5	<0.02 j	<0.1	<0.1	0.60	380	77
Vault-West-10 606317-03	<0.02	<0.02	<0.02	<0.06	<2	72
Piping-Southwest 606317-04	0.11	1.1	0.41	2.5	79	79
Method Blank 06-1242 MB	<0.02	<0.02	<0.02	<0.06	<2	73

Date of Report: 06/24/16
Date Received: 06/17/16
Project: 2014-068F, F&BI 606317
Date Extracted: 06/22/16
Date Analyzed: 06/22/16

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)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 56-165)
Vault-West-9 606317-01	<50	<250	130
Method Blank 06-1272 MB	<50	<250	115

Analysis For Total Metals By EPA Method 200.8

Client ID:	Vault-West-9	Client:	The Riley Group
Date Received:	06/17/16	Project:	2014-068F, F&BI 606317
Date Extracted:	06/21/16	Lab ID:	606317-01
Date Analyzed:	06/22/16	Data File:	606317-01.155
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	4.26

Analysis For Total Metals By EPA Method 200.8

Client ID:	Piping-Southwest	Client:	The Riley Group
Date Received:	06/17/16	Project:	2014-068F, F&BI 606317
Date Extracted:	06/21/16	Lab ID:	606317-04
Date Analyzed:	06/22/16	Data File:	606317-04.156
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	26.0

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	2014-068F, F&BI 606317
Date Extracted:	06/21/16	Lab ID:	I6-391 mb2
Date Analyzed:	06/22/16	Data File:	I6-391 mb2.154
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Date of Report: 06/24/16
Date Received: 06/17/16
Project: 2014-068F, F&BI 606317

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

Laboratory Code: 606317-03 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	82	69-120
Toluene	mg/kg (ppm)	0.5	89	70-117
Ethylbenzene	mg/kg (ppm)	0.5	93	65-123
Xylenes	mg/kg (ppm)	1.5	95	66-120
Gasoline	mg/kg (ppm)	20	115	71-131

Date of Report: 06/24/16
Date Received: 06/17/16
Project: 2014-068F, F&BI 606317

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

Laboratory Code: 606374-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	118	123	63-146	4

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	117	79-144

Date of Report: 06/24/16
Date Received: 06/17/16
Project: 2014-068F, F&BI 606317

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

Laboratory Code: 606301-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	1.83	100	103	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	100	85-115

Data Qualifiers & Definitions

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

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 contrd 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.

606319 606317

SAMPLE CHAIN OF CUSTODY

Page # 1 of 1

Report To Tamara Welty
Company The Riley Group Inc.
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone 425-415-0551 Email twelty@riley-group.com

SAMPLERS (signature) Tamara Welty
PROJECT NAME 2014-068F
PO #
REMARKS
INVOICE TO

TURNAROUND TIME
☒ Standard Turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Archive Samples
☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel *	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Lead					Notes
Vault-West-9	01 A-E	6/16/16	11:50	Soil	5		(X)	X	X				X					Cd added per TW 6/22/16 ms
Vault-West-9.5	02	"	12:05	"	"													w/ silica gel
Vault-West-10	03	"	12:25	"	"			X	X									
Piping-Southwest	04	"	14:50	"	"			X	X				X					
																		Samples received at 4 °C

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Tamara Welty	Tamara Welty	RGI	6/17	12:55
Received by: [signature]	Renata McCane	FedEx SDC	6/17	12:55
Relinquished by:				
Received by: [signature]	Nhan Phan	FEBI	6/17/16	1340

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 15, 2016

Tamara Welty, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Ms Welty:

Included are the results from the testing of material submitted on June 14, 2016 from the UW Audi, 2014-068F, F&BI 606242 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Paul Riley
TRG0615R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 14, 2016 by Friedman & Bruya, Inc. from the The Riley Group UW Audi, 2014-068F, F&BI 606242 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
606242 -01	UST2-Product
606242 -02	UST3-Product

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 200.8

Client ID:	UST2-Product	Client:	The Riley Group
Date Received:	06/14/16	Project:	UW Audi, 2014-068F, F&BI 606242
Date Extracted:	06/14/16	Lab ID:	606242-01
Date Analyzed:	06/14/16	Data File:	606242-01.045
Matrix:	Soil/Product	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	7.04

Analysis For Total Metals By EPA Method 200.8

Client ID:	UST3-Product	Client:	The Riley Group
Date Received:	06/14/16	Project:	UW Audi, 2014-068F, F&BI 606242
Date Extracted:	06/14/16	Lab ID:	606242-02
Date Analyzed:	06/14/16	Data File:	606242-02.047
Matrix:	Soil/Product	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	UW Audi, 2014-068F, F&BI 606242
Date Extracted:	06/14/16	Lab ID:	I6-375 mb
Date Analyzed:	06/14/16	Data File:	I6-375 mb.015
Matrix:	Soil/Product	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Date of Report: 06/15/16
Date Received: 06/14/16
Project: UW Audi, 2014-068F, F&BI 606242

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

Laboratory Code: 606168-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	1.12	96	100	70-130	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	109	85-115

Data Qualifiers & Definitions

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

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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.

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

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

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

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

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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.

606242

SAMPLE CHAIN OF CUSTODY

ME 06/14/16 AU2

Page # 1 of 1

Report To The Riley Group Inc.

Company Tamara Welty

Address 17522 Bothell Way NE

City, State, ZIP Bothell WA 98011

Phone 425-415-0551 Email twelty@riley-group.com

SAMPLERS (*signature*) Tamara Welty

PROJECT NAME: UW Audi

PO #: 2014-068F

REMARKS

INVOICE TO

TURNAROUND TIME
- ☐ Standard Turnaround
- ☒ RUSH Today
- Rush charges authorized by: TW

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☒ Archive Samples
- ☐ Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Total Lead				Notes
UST 2 - Product	01	6/14/16	7:15	gas	1								X				
UST 3 - Product	02	"	7:20	"	1								X				

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Tamara Welty	Tamara Welty	RGI	6/14/16	840
Received by:	Eric Young	F&B	6/14/16	1
Relinquished by:				
Received by:				

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