



February 10, 2016

Mr. Jasmin Patel
SERJ Realty Holdings
1500 East Katella Avenue, Suite 5
Orange, California 92867

**RE: Geophysical Survey and Preliminary Phase II Subsurface Investigation
Proposed Marysville Sonic
3710, 3724, and 3806 116th Street Northeast
Marysville, Snohomish County, Washington 98271
RGI Project No. 2015-165B**

Dear Mr. Patel:

The Riley Group, Inc. (RGI) is pleased to present our Geophysical Survey and Preliminary Phase II Subsurface Investigation (Preliminary Phase II) for the above-referenced Proposed Marysville Sonic property located at 3710, 3724, and 3806 116th Street Northeast, Marysville, Snohomish County, Washington (hereafter referred to as the Site, Figure 1).

The Site consists of eight tax parcels (tax parcel numbers 30050900301400, 30050900301500, 00646000000100, 00646000000200, 00646000001200, 30050900301100, 30050900303700, and the northern portion of tax parcel number 00646000001300), totaling approximately 9 acres of land. The Site is occupied by three single-family residences, an RV park, and outbuildings associated with the residences. The owners of the Site are Lori Ayres, Raymond Barkly, and Ronald Barkly.

The single-family residence addressed 3710 116th Street Northeast is hereafter referred to as Residence 3710. The single-family residence addressed 3724 116th Street Northeast is hereafter referred to as Residence 3724. The single-family residence addressed 3806 116th Street Northeast is hereafter referred to as Residence 3806.

Authorization for this project was provided by SERJ Realty Holdings on January 12, 2016. RGI understands that SERJ Realty Holdings intends to purchase and redevelop the Site with a Sonic Restaurant, parking, and drive aisles.

PROJECT BACKGROUND

RGI completed a Phase I Environmental Site Assessment (ESA) on December 22, 2015 on behalf of SERJ Realty Holdings (RGI Project No. 2015-165A). Based on its findings, the following recognized environmental conditions (RECs) were identified:

- **Inactive Heating Oil UST:** A fill and vent pipe for an approximately 300-gallon heating oil underground storage tank (UST) was observed at Residence 3806 on the Site. The UST was reportedly installed in approximately the 1960s, and was last in use approximately 15 years ago. According to the owner, the UST was pumped of remaining fuel, but not decommissioned. The soil and shallow groundwater quality in the vicinity of the UST was undocumented and therefore considered a REC.

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- **Suspect Heating Oil UST:** A metal pipe suspected to be a possible UST fill or vent pipe was observed at Residence 3710 on the Site. The size, installation date, and status of the suspect UST (decommissioned-in-place, abandoned, etc.) were unknown. The residence currently utilizes a heating oil AST. The potential UST was considered a REC.
- **Historical Oil Burner:** Residence 3724 was historically heated by an oil-burning furnace. The type of fuel storage for this oil-burning furnace (AST or UST) was unknown and considered a REC.
- **West-Adjoining Gasoline Station:** A gasoline station operated on the west-adjoining property between the early 1980s and 2014. A release of petroleum products from the USTs to the soil and groundwater was reportedly discovered in 1990. Four USTs and approximately 2,196 tons of contaminated soil were removed in 2014. Two groundwater monitoring wells were formerly located on the Site (parcel 30050900303700), as well as others located on the west-adjoining property, near the western boundary of the Site. Additionally, contaminant detections from the groundwater monitoring wells on or near the Site suggested that contaminants could have migrated onto the Site and could be encountered during the planned redevelopment of the Site that may have special disposal requirements. The west-adjoining gasoline station was considered a REC.

RGI recommended conducting a Geophysical Survey in an effort to locate any abandoned, decommissioned, or former UST locations at the Site. In addition, RGI recommended a Preliminary Phase II Subsurface Investigation to determine if the aforementioned RECs had adversely affected the soil, shallow groundwater, or soil vapor quality of the Site.

At the request of SERJ Realty Holdings (hereafter referred to as the Client), RGI has completed this Geophysical Survey and Preliminary Phase II Subsurface Investigation to evaluate the above summarized potential environmental concerns.

SCOPE OF WORK

The scope of work for this project was performed in accordance with our proposal, dated January 11, 2016, and included the following:

- Relied on information developed for the Phase I ESA of the Site in order to determine sampling location placement in relation to areas of potential contamination.
- Performed public and private utility locating in an attempt to identify the location(s) of buried utility lines on the Site.
- Conducted a geophysical survey in an attempt to identify the location and orientation of any abandoned, decommissioned, and/or former USTs in the Site.
- Advanced eight direct-push test probes (TP1 through TP8) in suspect areas at the Site to a depth of 15 feet below ground surface (bgs).
- Installed one temporary soil vapor sampling well (SV-1) in the vicinity of the proposed Sonic restaurant building at the Site to a depth of 5 feet bgs.
- Submitted select soil, groundwater, and soil vapor samples for laboratory analysis of potential contaminants of concern.
- Compared soil analytical results to the routine Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses (WAC 173-340-740).

- Compared groundwater analytical results to the routine Ecology MTCA Method A Cleanup Levels for Ground Water.
- Compared soil vapor analytical results to the Ecology Routine Soil Vapor Screening Levels established in Ecology's Draft *Guidance for Evaluating Vapor Intrusion in Washington State: Investigation and Remedial Action* (Ecology Draft VI Guidance) dated October 2009, or as subsequently amended.
- Prepared this report presenting our findings, observations, conclusions, and recommendations.

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, soil and groundwater 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).

The Ecology Draft VI Guidance supports implementation of the MTCA regulation and contains conservative soil vapor screening levels that are considered protective of MTCA Method B and C Indoor Air Cleanup Levels.

For purposes of comparison, soil vapor data obtained during this project were compared to Ecology Routine Soil Vapor Screening Levels established in the Ecology Draft VI Guidance, or as subsequently amended.

GEOPHYSICAL SURVEY

On January 19, 2016, RGI supervised a geophysical survey at the Site in an attempt to identify any abandoned, decommissioned, and/or former UST locations. The geophysical survey was performed by Mt. View Locating Services, LLC (under subcontract to RGI) using electromagnetic/ground penetrating radar (EM/GPR) equipment.

The geophysical survey was performed around the perimeters of Residence 3710 and Residence 3724, and in the vicinity of the heating oil UST fill and vent pipes on the west side of Residence 3806.

According to the geophysical survey findings, the heating oil UST near Residence 3806 is situated in an east-west orientation and has aerial dimensions of approximately 10 feet by 9 feet. No other large metal objects indicative of abandoned or decommissioned USTs were identified during the geophysical survey (with the exception of the known septic tanks).

Please note that the EM/GPR survey technique typically provides good information on the location of possible USTs and other buried objects. However, because of the numerous variables involved in geophysical investigations, there is a possibility that some subsurface features may not be detected, including possible USTs, and that the estimated capacity of any identified USTs could be under- or over-



estimated. Other buried features, such as foundations, pipes, and rubble, as well as the age and condition of the UST, may complicate the interpretation of the geophysical data.

SUBSURFACE INVESTIGATION AND SAMPLING

Private and Public Utility Locate

At least 48 hours prior to commencing our subsurface investigation, RGI contacted One-Call to locate known public underground utilities near, or on, the Site. Public underground utilities located included electric, natural gas, telecommunications, water, sewer, and cable.

RGI also retained a private utility locator to locate private water, natural gas, electric, and other metallic underground utility conduits potentially located in the proposed test probe locations.

Subsurface Investigation

On January 26, 2016, eight soil test probes (TP1 through TP8) were advanced to a depth of approximately 15 feet bgs and one temporary soil vapor sampling well (SV-1) was installed to a depth of 5 feet bgs. Test probes were advanced using a track-mounted, direct push test probe rig (Geoprobe 7730DT).

Test probes TP1 and TP2 were near the western boundary of the Site in order to evaluate the west-adjointing gasoline station. Test probes TP3, TP4, and TP8 were in the vicinity of Residence 3710. Test probes TP5 and TP6 were in the vicinity of Residence 3806. Test probe TP7 was in the vicinity of Residence 3724. Soil vapor sampling well SV-1 was in the vicinity of the proposed Sonic restaurant building. Test probe and soil vapor temporary well locations are shown on Figure 2.

Subsurface Conditions

Soil conditions encountered were described using the Unified Soil Classification System (USCS). Subsurface soils encountered during drilling generally consisted of fine to medium sand to silty sand. Groundwater was encountered during test probing at a depth of approximately 10 to 12 feet bgs. Test probe logs are included in Appendix A.

Soil Sampling

Discrete soil samples were collected at approximately 5-foot intervals from each test probe, inspected, and field screened for the presence of volatile organic compounds (VOCs) using a portable gas photoionization detector (PID) and/or water sheen test.

Elevated PID readings up to 35 volumetric parts per million (Vppm), slight petroleum odor, and slight petroleum sheen were noted in soils at test probe TP4 at depths between approximately 10.5 and 15 feet bgs. No elevated PID readings, odors, sheens, discolorations, or other evidence of contamination were noted at any of the other test probe locations. Further details can be found in the test probe logs included in Appendix A.

Groundwater Grab Sampling

Groundwater grab samples were collected from six test probe locations (TP1, TP2, TP4, TP5, TP7, and TP8). The groundwater samples were collected through a 1-inch-diameter temporary well screen down the hole using a peristaltic pump and disposable plastic tubing under low-flow conditions.

Slight petroleum odor and sheen were noted in groundwater at test probe TP4.

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.

Soil Vapor Sampling

Soil vapor sample SV-1 was collected from the proposed Sonic restaurant building location. The sample was collected from a depth of 4.5 feet bgs in the test probe. The sampling methodology consisted of placing the 6-inch soil vapor probe in the middle of a 12-inch-thick layer dry medium-grain sand. The sand was covered by a 12-inch-thick layer of dry granular bentonite covered in turn by a 12-inch-thick layer of hydrated bentonite chips. The vapor probe was allowed to sit for at least two hours prior to sampling (to ensure a good bentonite seal).

A shut in test was performed to verify that there were no leaks in the sampling assembly prior to sampling. The soil vapor probe tubing was attached to a 60 mL syringe via a three-way fitting and isolation valve, and at least three casing volumes of soil vapor were purged from the borehole prior to sampling.

After purging, the soil vapor probe tubing was connected to the Summa canister using a quick connect fitting. All soil vapor samples collected during this project were transferred into laboratory supplied (batch certified) evacuated 1 liter Summa canisters. Upon connection to the Summa canisters, the vacuum gauge reading was recorded in the field notebook. The soil vapor probe was attached via clean tubing to a Summa canister sampling assembly consisting of a 0 to 30-inch vacuum gauge and a 150 milliliter/minute (mL/min) flow restrictor and associated fittings.

Following soil vapor sample collection, the regulator valve was closed and the time it took to fill the 1 liter summa canister was recorded. The sampling assembly was disconnected and capped with a rubber protective cover supplied by the analytical testing laboratory. A gas analyzer equipped with a PID was used to field-screen each soil vapor test probe for the presence of VOCs, and the PID reading was recorded in the field notebook. No elevated PID readings were noted.

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. If soil samples were collected for analysis of VOCs, they were collected using the Environmental Protection Agency's Method 5035 sampling method. 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 chain-of-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 II are included in Appendix B. All test probes were abandoned using hydrated bentonite chips.

ANALYTICAL LABORATORY ANALYSIS

Soil and groundwater grab samples were submitted to Friedman & Bruya, Inc. (FBI), an Ecology-accredited, third-party analytical laboratory. The soil vapor sample was submitted to H & P Mobile Geochemistry, Inc. in Carlsbad, California.

A total of eight soil samples and five groundwater grab samples were submitted for laboratory analysis. The samples were analyzed for one or more of the following contaminants of concern:

- Diesel- and oil-range total petroleum hydrocarbons (TPH) using Northwest Test Method TPH-Dx
- Gasoline-range TPH using Northwest Test Method TPH-Gx
- Benzene, ethylbenzene, toluene, and xylenes (BTEX) using EPA Test Method 8021B
- Volatile organic compounds (VOCs) using EPA Test Method 8260C

The soil vapor sample was analyzed for the following contaminants of concern:

- Carbon Fraction Analyses (EC5-8 and EC9-12 aliphatics and EC9-10 aromatics) using Air Phase Hydrocarbons (APH) Method
- Select VOCs using EPA Test Method TO-15

ANALYTICAL RESULTS

Analytical results and the respective screening levels are summarized in the attached Tables 1 through 3, and are discussed below.

Soil Analytical Results

Analytical results for soil samples and MTCA Method A Soil Cleanup Level for Unrestricted Land Uses are summarized in Table 1 and depicted graphically on Figure 2.

Contaminants of concern were not detected above the method detection limits (none detected) in the eight soil samples submitted for chemical analysis, with the exception of one soil sample.

Soil sample TP4-12 was collected from test probe TP4 at a depth of approximately 12 feet bgs near Residence 3710. Soil sample TP4-12 contained a diesel-range TPH concentration of 6,200 milligrams per kilogram (mg/kg), which is above the MTCA Method A soil cleanup level of 2,000 mg/kg.

Groundwater Analytical Results

Analytical results for groundwater grab samples and MTCA Method A Cleanup Levels for Ground Water are summarized in Table 2 and depicted graphically on Figure 2.

Contaminants of concern were not detected above the method detection limits (none detected) in the five groundwater grab samples submitted for chemical analysis, with the exception of two groundwater grab samples.

Groundwater grab samples TP4-W and TP8-W were collected from test probes TP4 and TP8, respectively, which were located near Residence 3710. Groundwater grab samples TP4-W and TP8-W contained diesel-range TPH concentrations of 9,500 micrograms per liter ($\mu\text{g/L}$) and 2,500 $\mu\text{g/L}$, respectively, and oil-range TPH concentrations of 2,000 $\mu\text{g/L}$ and 690 $\mu\text{g/L}$, respectively. These concentrations are above the MTCA Method A groundwater cleanup level for diesel- and oil-range TPH of 500 $\mu\text{g/L}$.

The laboratory noted that the sample chromatographic pattern for both oil-range TPH detections did not resemble the fuel standard used for quantitation (“x” flag). In other words, the apparent oil-range TPH concentrations were likely a result of the diesel-range TPH concentrations.

Soil Vapor Analytical Results

Analytical results for soil vapor samples and MTCA Method B Sub-Slab Soil Gas Screening Levels are summarized in Table 3 and depicted graphically on Figure 2.

Contaminants of concern were not detected above the method detection limits (none detected) in the soil vapor sample submitted for chemical analysis, with the exception of benzene, C₅ – C₈ aliphatics, and

C₉ – C₁₂ aliphatics. However, the concentrations of these contaminants were all below the MTCA Method B Sub-Slab Soil Gas Screening Levels.

CONCLUSIONS

Based on our Preliminary Phase II findings, RGI concludes the following:

- Soil and groundwater intercepted by our test probes in the vicinity of Residence 3710 on the Site exceeds Ecology's MTCA Method A Cleanup Levels for Unrestricted Land Uses (WAC 173-340) and MTCA Method A Cleanup Levels for Ground Water. One of the analyzed soil samples, which was collected from a depth of 12 feet bgs, exceeds the MTCA Method A soil cleanup level for diesel-range TPH. Two of the analyzed groundwater grab samples exceed the MTCA Method A groundwater cleanup level for diesel-range TPH. No USTs were found during our geophysical survey in the vicinity of Residence 3710; however the heat source has historically been heating oil. Based on these findings, RGI suspects that the petroleum contaminated soil and groundwater in the vicinity of Residence 3710 is due to a former leaking heating oil UST. The location of the suspect former heating oil UST is unknown.
- No contamination was intercepted by our test probes adjacent to the inactive heating oil UST in the vicinity of Residence 3806 on the Site.
- No contamination was intercepted by our test probes near the western boundary of the Site, which was evaluating potential impacts from the west-adjointing former gasoline station.
- No vapor intrusion concerns were identified for the proposed Sonic restaurant building on the Site.

RECOMMENDATIONS

Based on our Preliminary Phase II findings and conclusions, RGI provides the following recommendations:

- RGI recommends remediation of the petroleum contamination in the vicinity of Residence 3710 prior to or during the redevelopment of the Site. Additional subsurface investigation is warranted to better define the extent of contamination.
- RGI recommends that the Site be enrolled into Ecology's Voluntary Cleanup Program (VCP) with the objective of obtaining a No Further Action (NFA) determination from the regulatory agency regarding a planned or completed cleanup. However, enrolling into the VCP is purely voluntary.
- According to Washington Administrative Code (WAC) Chapter 173-340-300(2)(a), "any owner or operator who has information that a hazardous substance has been released to the environment at the owner or operator's facility and may be a threat to human health or the environment shall report such information to the department [Ecology] within ninety days of discovery." Based on the discovery of contamination during this Preliminary Phase II, RGI recommends that the Client (SERJ Realty Holdings) notify the owner/operator of the Site (Lori Ayres) of their release reporting requirements to Ecology as promulgated under WAC 173-340-300. Under WAC 173-340-300, the owner or operator of the Site shall report such information regarding this encountered contamination to Ecology within 90 days of discovery. The release report can be made by contacting the Ecology Northwest Regional Office at (425) 649-7229 and by mailing a copy of this report to the Ecology Northwest Regional office located at 3190 160th Avenue Southeast, Bellevue, Washington 98008-5452. On written request, RGI can contact, or submit a copy of this report to, Ecology on behalf of the Site's Owner.

- RGI recommends that heating oil USTs and ASTs be properly decommissioned and removed in accordance with the applicable city, country, and/or state requirements. It should be noted that while contamination was not encountered by our test probes near the inactive heating oil UST in the vicinity of Residence 3806, the potential exists that some contamination may be encountered beneath or around the UST during its removal.

PROJECT LIMITATIONS

This report is the property of RGI, SERJ Realty Holdings, 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 Proposed Marysville Sonic property located at 3710, 3724, and 3806 116th Street Northeast, Marysville, Snohomish 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 test pits excavated or test borings 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 the undersigned at (425) 415-0551 should you have any questions or need additional information.

Sincerely,
THE RILEY GROUP, INC.



TAMARA WELTY

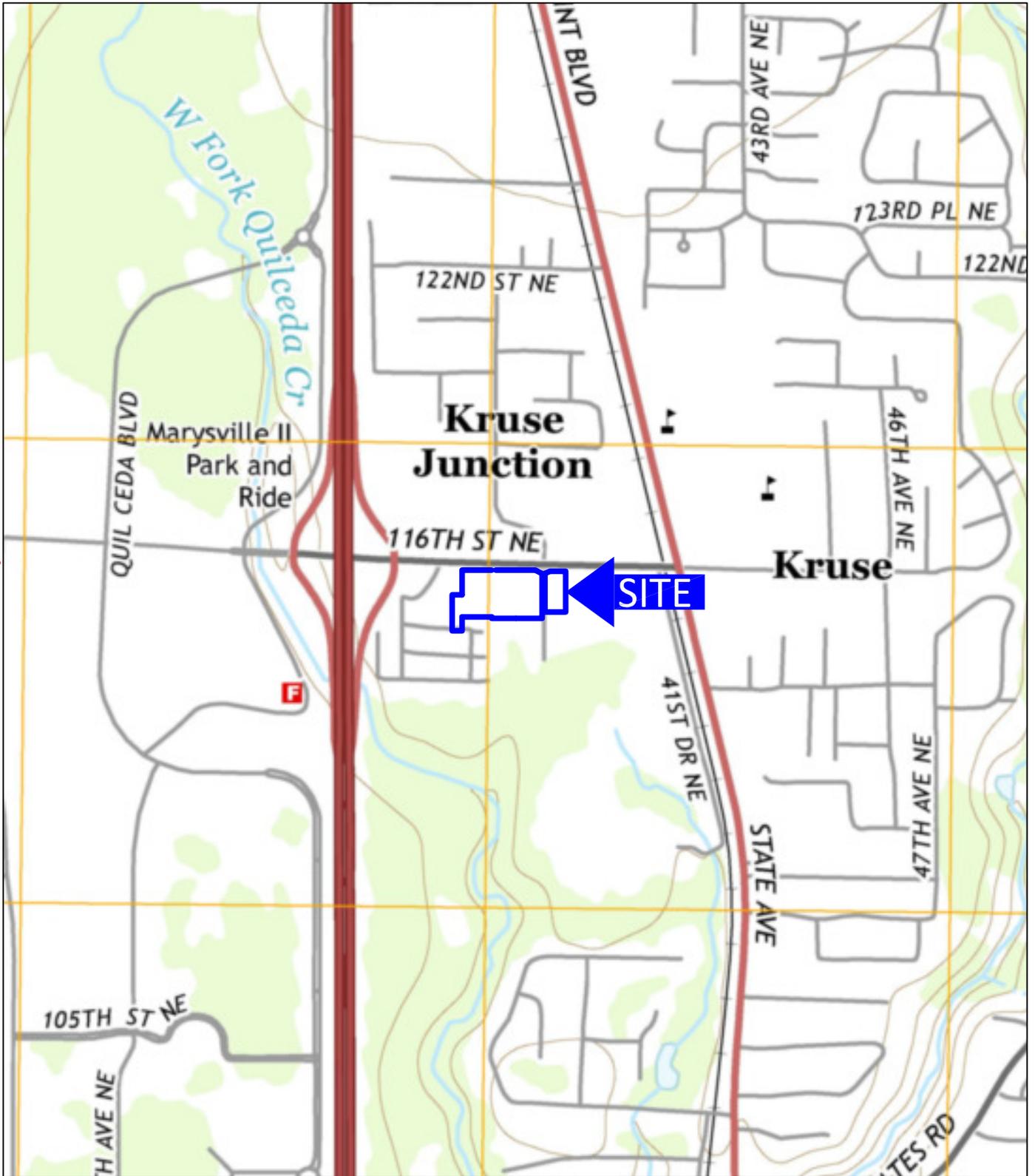
Tamara Welty, LG
Project Geologist

Paul D. Riley, LG, LHG
Principal

Distribution: Mr. Jasmin Patel, SERJ Realty Holdings (PDF)
Mr. Rune Harkestad, Kidder Mathews (PDF)

Attachments:

- Figure 1, Site Vicinity Map*
- Figure 2, Site Plan Showing Test Probe Locations and Analytical Results*
- Table 1, Summary of Soil Sample Analytical Laboratory Results*
- Table 2, Summary of Groundwater Grab Sample Analytical Laboratory Results*
- Table 3, Summary of Soil Vapor Sample Analytical Laboratory Results*
- Appendix A, Test Probe Logs*
- Appendix B, Analytical Laboratory Results*
- Appendix C, Geophysical Survey Memo*



USGS, 2014, Marysville, Washington
7.5-Minute Quadrangle

Approximate Scale: 1"=1000'



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Proposed Marysville Sonic

RGI Project Number
2015-165B

Site Vicinity Map

Figure 1

Date Drawn:
02/2016

Address: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271

TP4				
Date	Matrix	Depth	DSL	Oil
1/26/16	Soil	5'	ND	ND
1/26/16	Soil	12'	6,200	ND
1/26/16	Soil	15'	ND	ND
1/26/16	Water	11'	9,500	2,000x

TP8				
Date	Matrix	Depth	DSL	Oil
1/26/16	Soil	11'	ND	ND
1/26/16	Water	11'	2,500	690x

TP3				
Date	Matrix	Depth	DSL	Oil
1/26/16	Soil	12'	ND	ND

TP1					
Date	Matrix	Depth	Gas	BTEX	VOCs
1/26/16	Soil	11'	ND	ND	---
1/26/16	Water	10.5'	ND	---	ND

TP2					
Date	Matrix	Depth	Gas	BTEX	VOCs
1/26/16	Soil	10'	ND	ND	---
1/26/16	Water	12'	ND	---	ND

TP5				
Date	Matrix	Depth	DSL	Oil
1/26/16	Soil	5'	ND	ND
1/26/16	Water	10.5'	ND	ND

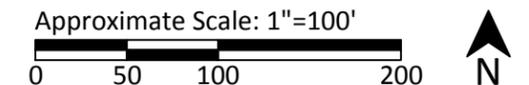
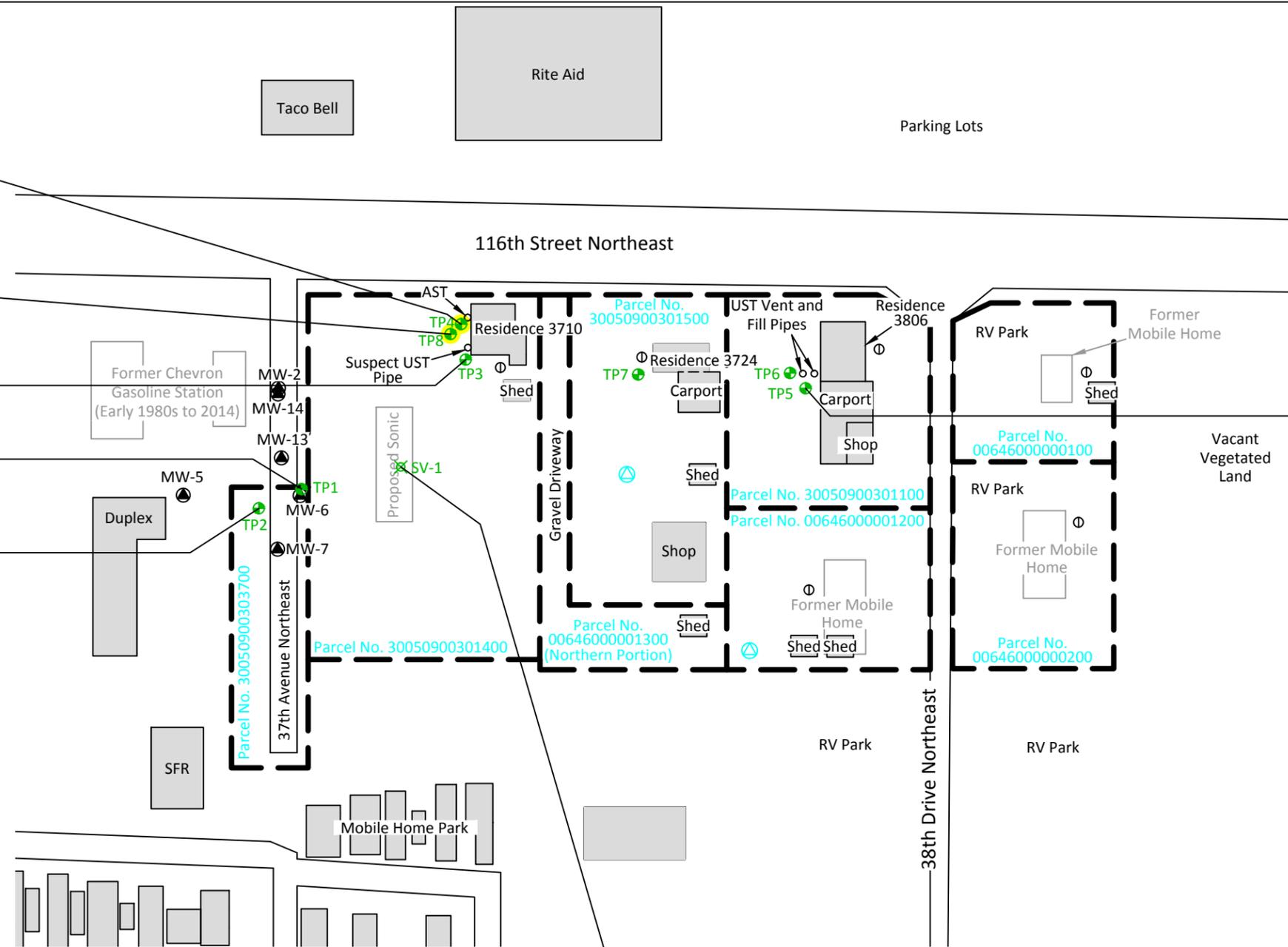
SV-1													
Date	Matrix	Depth	TPHv Fractions			B	T	E	X	VOCs	CO ₂	O ₂	N ₂
			C5 - C8	C9 - C12	C9-C10								
1/26/16	Soil Vapor	4.5'	450	220	ND	ND	13	ND	ND	ND	ND	21%	79%

= Soil analytical laboratory results in mg/kg (ppm); groundwater results in ug/L (ppb); soil vapor results in ug/m³
 Gas/DSL/Oil = Gasoline/diesel/oil total petroleum hydrocarbons (TPH)
 BTEX = Benzene, toluene, ethylbenzene, xylenes
 VOCs = Volatile organic compounds
 TPHv Fractions = Equivalent carbon ranges for aliphatics C5 - C8 and C9 - C15 and aromatics C9 - C10
 ND = Not detected above analytical detection limit
 --- = Not analyzed
 Bold and yellow highlighted results indicate concentrations that exceed the applicable screening levels.

- = Soil vapor location by RGI on 1/26/2016
- = Test probe location by RGI on 1/26/2016
- = Septic System
- = (in black) Groundwater Monitoring Well by Others (Existing or Former)
- = (in blue) Existing Drinking Water Well (Active or Inactive)
- SFR = Single-Family Residence
- = Site Boundary

Note: Former and proposed features shown in gray.

Note: Not all previous wells/boring locations on west-adjointing property are shown.



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Proposed Marysville Sonic		Figure 2
RGI Project Number	2015-165B	Date Drawn: 02/2016
Site Plan Showing Test Probe Locations and Analytical Results		
Address: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271		

Table 1. Summary of Soil Sample Analytical Laboratory Results
Proposed Marysville Sonic
3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271
The Riley Group, Inc. Project No. 2015-165B

Sample Number	Sample Depth	Sample Date	PID	Gasoline TPH	BTEX				Diesel TPH	Oil TPH
					B	T	E	X		
TP1-5	5	01/26/16	1.5	---	---	---	---	---	---	---
TP1-11	11	01/26/16	1.5	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	---	---
TP1-15	15	01/26/16	1.0	---	---	---	---	---	---	---
TP2-5	5	01/26/16	0.4	---	---	---	---	---	---	---
TP2-10	10	01/26/16	1.3	ND<2	ND<0.02	ND<0.02	ND<0.02	ND<0.06	---	---
TP2-12	12	01/26/16	1.0	---	---	---	---	---	---	---
TP3-5	5	01/26/16	2.7	---	---	---	---	---	---	---
TP3-10	10	01/26/16	2.0	---	---	---	---	---	---	---
TP3-12	12	01/26/16	2.0	---	---	---	---	---	ND<50	ND<250
TP3-15	15	01/26/16	2.1	---	---	---	---	---	---	---
TP4-5	5	01/26/16	1.3	---	---	---	---	---	ND<50	ND<250
TP4-10	10	01/26/16	1.0	---	---	---	---	---	---	---
TP4-12	12	01/26/16	35	---	---	---	---	---	6,200	ND<250
TP4-15	15	01/26/16	21	---	---	---	---	---	ND<50	ND<250
TP5-5	5	01/26/16	1.7	---	---	---	---	---	ND<50	ND<250
TP5-11	11	01/26/16	1.1	---	---	---	---	---	---	---
TP5-15	15	01/26/16	1.0	---	---	---	---	---	---	---
TP6-5	5	01/26/16	1.3	---	---	---	---	---	---	---
TP6-11	11	01/26/16	1.1	---	---	---	---	---	---	---
TP6-15	15	01/26/16	1.0	---	---	---	---	---	---	---
TP7-5	5	01/26/16	2.1	---	---	---	---	---	---	---
TP7-10	10	01/26/16	2.0	---	---	---	---	---	---	---
TP7-15	15	01/26/16	1.1	---	---	---	---	---	---	---
TP8-5	5	01/26/16	1.1	---	---	---	---	---	---	---
TP8-11	11	01/26/16	0.7	---	---	---	---	---	ND<50	ND<250
TP8-15	15	01/26/16	0.5	---	---	---	---	---	---	---
SV1-2.5	2.5	01/26/16	1.1	---	---	---	---	---	---	---
SV1-5	5	01/26/16	1.3	---	---	---	---	---	---	---
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses				100/30¹	0.03	7	6	9	2,000	

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.

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 Groundwater Grab Sample Analytical Laboratory Results
Proposed Marysville Sonic
3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271
The Riley Group, Inc. Project No. 2015-165B

Sample Number	Sample Date	Depth to Water	Gasoline TPH	Diesel TPH	Oil TPH	VOCs Not Included in TPH Screening Level Calculations
TP1-W	01/26/16	10.5	ND<100	---	---	ND
TP2-W	01/26/16	12	ND<100	---	---	ND
TP4-W	01/26/16	11	---	9,500	2,000x	---
TP5-W	01/26/16	10.5	---	ND<60	ND<280	---
TP7-W	01/26/16	10	---	---	---	---
TP8-W	01/26/16	11	---	2,500	690x	---
MTCA Method A Cleanup Levels for Ground Water			800/1,000¹	500	500	Analyte Specific

Notes:

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

Depth to Water = Depth to water in feet below ground surface (bgs).

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

Diesel and Oil TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx without silica gel cleanup.

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).

¹The 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 Cleanup Levels for Ground Water.

Table 3. Summary of Soil Vapor Sample Analytical Laboratory Results
Proposed Marysville Sonic
3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271
The Riley Group, Inc. Project No. 2015-165B

Sample Number	Sample Date	Sample Depth	TPHv Fractions			BTEX				Other VOCs	Carbon Dioxide	Oxygen
			C ₅ - C ₈	C ₉ - C ₁₂	C ₉ - C ₁₀	B	T	E	X			
			aliphatics	aliphatics	aromatics							
SV-1	01/26/16	4.5	450	220	ND<100	ND<3.2	13	ND<4.4	ND<8.8	ND	ND	21%
MTCA Method B Sub-Slab Soil Gas Screening Level			90,000	4,700	6,000	10.7	76,200	15,200	1,520	Analyte Specific	----	----

Notes:

Unless otherwise noted, all analytical results are given in micrograms per cubic meter (ug/m³).

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

TPHv Fractions = Equivalent Carbon Ranges for aliphatics C₅ - C₈ and C₉ - C₁₂ and aromatics C₉ - C₁₀ determined using EPA Test Method TO-15.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes determined using EPA Test Method TO-15.

Other VOCs (volatile organic compounds) determined using EPA Test Method TO-15.

ND = Not detected above the laboratory detection limit.

---- = Not applicable.

Depth measured in feet below ground surface.

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method B Sub-Slab Soil Gas Screening Levels. Most conservative value referenced.

Bold results indicate concentrations above laboratory detection limits.

Bold and highlighted results indicate any detected soil vapor concentrations that would result in an exceedance to the MTCA cleanup levels.

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP1**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 10.5 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
1.5	TP1-5				0	Light brown fine to medium SAND, moist, loose, no odor, no sheen	
1.5	TP1-11				10	Becomes wet	
1.0	TP1-15				15	Probe terminated at 15 feet bgs.	
					20		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP2**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 12 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
0.4	TP2-5				0	Light brown fine to medium SAND, moist, loose, no odor, no sheen	
					5	Grayish brown silty SAND, moist, dense, no odor, no sheen	
1.3	TP2-10				10		
1.0	TP2-12					Light brown fine to medium SAND, wet, loose, no odor, no sheen	
					15	Probe terminated at 15 feet bgs.	
					20		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP3**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 12 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Reddish brown silty SAND, moist, dense, no odor, no sheen	
						Light gray fine to medium SAND, moist, dense, no odor, no sheen	
2.7	TP3-5				5		
2.0	TP3-10				10		
2.0	TP3-12					Becomes wet	
2.1	TP3-15				15	Probe terminated at 15 feet bgs.	
					20		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP4**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 11 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
1.3	TP4-5				0	Light gray medium SAND, moist, dense, no odor, no sheen	
1.0	TP4-10				10	Slight odor and slight sheen between approximately 10.5 and 13 feet bgs	
35	TP4-12						
21	TP4-15				15	Slight odor and slight sheen Probe terminated at 15 feet bgs.	
					20		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP5**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 10.5 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Organic topsoil Light brown fine to medium SAND, moist, dense, no odor, no sheen	
1.7	TP5-5				5	Silty SAND lens	
1.1	TP5-11				10	Becomes wet	
1.0	TP5-15				15	Probe terminated at 15 feet bgs.	
					20		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP6**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 11 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
1.3	TP6-5				0	Light brown fine to medium SAND, moist, dense, no odor, no sheen	
1.1	TP6-11			11	Becomes wet		
1.0	TP6-15			15	Probe terminated at 15 feet bgs.		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP7**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 10 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Dark brown silty SAND, moist, dense, no odor, no sheen	
2.0					Becomes light brown		
2.1	TP7-5				5	Gray fine to medium SAND, moist, dense, no odor, no sheen	
					Silty SAND lens		
2.0	TP7-10				10	Becomes wet	
1.1	TP7-15				15	Probe terminated at 15 feet bgs.	
					20		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **TP8**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 15 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: 11 feet	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
1.1	TP8-5				0	Light brown fine to medium SAND, moist, dense, no odor, no sheen	
0.7	TP8-11				10		
0.5	TP8-15				15	Probe terminated at 15 feet bgs.	

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Test Probe No.: **SV-1**

Sheet 1 of 1

Date(s) Drilled: 1/26/16	Logged By: SL	Surface Conditions: Grass
Drilling Method(s): Direct Push	Drill Bit Size/Type: 2.25"	Total Depth of Borehole: 5 feet
Drill Rig Type: Track-mounted	Drilling Contractor: Riley Group, Inc.	Approximate Surface Elevation:
Groundwater Level: Not encountered	Sampling Method(s): Continuous	Hammer Data : N/A
Borehole Backfill: Bentonite (chips)	Location: 3710, 3724 and 3806 116th Street Northeast, Marysville, Washington 98271	

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
					0	Reddish brown silty SAND, moist, dense, no odor, no sheen	
1.1	SV1-2.5						
						Gray fine to medium SAND, moist, dense, no odor, no sheen	
1.3	SV1-5				5	Probe terminated at 5 feet bgs.	
					10		
					15		
					20		

Project Name: **Proposed Marysville Sonic**

Project Number: **2015-165B**

Client: **SERJ Drive-Ins Washington**



Boring Log Key

Sheet 1 of 1

PID Reading, ppm	Sample ID	Sample Type	% Recovery	GW Depth	Depth (feet)	MATERIAL DESCRIPTION	Graphic Log
1	2	3	4	5	6	7	8

COLUMN DESCRIPTIONS

- 1** PID Reading, ppm: The reading from a photo-ionization detector, in parts per million.
- 2** Sample ID: Sample identification number.
- 3** Sample Type: Type of soil sample collected at the depth interval shown.
- 4** % Recovery: % Recoverysquare foot.
- 5** GW Depth: Groundwater depth in feet below the ground surface.
- 6** Depth (feet): Depth in feet below the ground surface.
- 7** MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
- 8** Graphic Log: Graphic depiction of the subsurface material encountered.

FIELD AND LABORATORY TEST ABBREVIATIONS

- CHEM: Chemical tests to assess corrosivity
- COMP: Compaction test
- CONS: One-dimensional consolidation test
- LL: Liquid Limit, percent
- PI: Plasticity Index, percent
- SA: Sieve analysis (percent passing No. 200 Sieve)
- UC: Unconfined compressive strength test, Qu, in ksf
- WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS

- Silty SAND (SM)
- Poorly graded SAND (SP)
- Poorly graded SAND with Silt (SP-SM)

TYPICAL SAMPLER GRAPHIC SYMBOLS

- Auger sampler
- Bulk Sample
- 3-inch-OD California w/ brass rings
- CME Sampler
- Continuous
- Grab Sample
- 2.5-inch-OD Modified California w/ brass liners
- Pitcher Sample

OTHER GRAPHIC SYMBOLS

- 2-inch-OD unlined split spoon (SPT)
- Shelby Tube (Thin-walled, fixed head)
- Water level (at time of drilling, ATD)
- Water level (after waiting)
- Minor change in material properties within a stratum
- Inferred/gradational contact between strata
- Queried contact between strata

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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February 3, 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 January 27, 2016 from the 2015-165B, F&BI 601329 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
TRG0203R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 27, 2016 by Friedman & Bruya, Inc. from the The Riley Group 2015-165B, F&BI 601329 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>The Riley Group</u>
601329 -01	TP1-5
601329 -02	TP1-11
601329 -03	TP1-15
601329 -04	TP1-W
601329 -05	TP2-5
601329 -06	TP2-10
601329 -07	TP2-12
601329 -08	TP2-W
601329 -09	SV1-2.5
601329 -10	SV1-5
601329 -11	TP4-5
601329 -12	TP4-10
601329 -13	TP4-12
601329 -14	TP4-15
601329 -15	TP4-W
601329 -16	TP3-5
601329 -17	TP3-10
601329 -18	TP3-12
601329 -19	TP3-15
601329 -20	TP7-5
601329 -21	TP7-10
601329 -22	TP7-15
601329 -23	TP7-W
601329 -24	TP6-5
601329 -25	TP6-11
601329 -26	TP6-15
601329 -27	TP5-5
601329 -28	TP5-11
601329 -29	TP5-15
601329 -30	TP5-W
601329 -31	TP8-5
601329 -32	TP8-11
601329 -33	TP8-15
601329 -34	TP8-W

The 8260C 1,4-dichlorobenzene laboratory control sample duplicate failed below the acceptance criteria. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16
Date Received: 01/27/16
Project: 2015-165B, F&BI 601329
Date Extracted: 01/28/16
Date Analyzed: 01/28/16

**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	<u>Gasoline Range</u>	Surrogate <u>(% Recovery)</u> (Limit 51-134)
TP1-W 601329-04	<100	94
TP2-W 601329-08	<100	95
Method Blank 06-160 MB	<100	93

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16

Date Received: 01/27/16

Project: 2015-165B, F&BI 601329

Date Extracted Date Analyzed: 01/28/16

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
TP1-11 601329-02	<0.02	<0.02	<0.02	<0.06	<2	81
TP2-10 601329-06	<0.02	<0.02	<0.02	<0.06	<2	75
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	91

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16
Date Received: 01/27/16
Project: 2015-165B, F&BI 601329
Date Extracted: 01/28/16
Date Analyzed: 01/28/16

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

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

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 56-165)
TP4-5 601329-11	<50	<250	85
TP4-12 601329-13	6,200	<250	88
TP4-15 601329-14	<50	<250	96
TP3-12 601329-18	<50	<250	83
TP5-5 601329-27	<50	<250	84
TP8-11 601329-32	<50	<250	85
Method Blank 06-176 MB	<50	<250	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16
Date Received: 01/27/16
Project: 2015-165B, F&BI 601329
Date Extracted: 01/28/16
Date Analyzed: 01/29/16

**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	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 47-140)
TP4-W 601329-15 1/1.1	9,500	2,000 x	83
TP5-W 601329-30 1/1.1	<60	<280	80
TP8-W 601329-34 1/1.2	2,500	690 x	78
Method Blank 06-174 MB	<50	<250	93

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP1-W	Client:	The Riley Group
Date Received:	01/27/16	Project:	2015-165B, F&BI 601329
Date Extracted:	01/28/16	Lab ID:	601329-04
Date Analyzed:	01/28/16	Data File:	012825.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	107	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1 j1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP2-W	Client:	The Riley Group
Date Received:	01/27/16	Project:	2015-165B, F&BI 601329
Date Extracted:	01/28/16	Lab ID:	601329-08
Date Analyzed:	01/28/16	Data File:	012826.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1 j1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	2015-165B, F&BI 601329
Date Extracted:	01/28/16	Lab ID:	06-0140 mb
Date Analyzed:	01/28/16	Data File:	012816.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1 j1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16

Date Received: 01/27/16

Project: 2015-165B, F&BI 601329

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR TPH AS GASOLINE
USING METHOD NWTPH-Gx**

Laboratory Code: 601330-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	99	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16

Date Received: 01/27/16

Project: 2015-165B, F&BI 601329

**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: 601332-06 (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	96	70-117
Ethylbenzene	mg/kg (ppm)	0.5	101	65-123
Xylenes	mg/kg (ppm)	1.5	99	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16

Date Received: 01/27/16

Project: 2015-165B, F&BI 601329

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

Laboratory Code: 601325-01 (Matrix Spike)

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	108	113	63-146	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	79-144

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16

Date Received: 01/27/16

Project: 2015-165B, F&BI 601329

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	92	101	58-134	9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16

Date Received: 01/27/16

Project: 2015-165B, F&BI 601329

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

Laboratory Code: 601354-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	101	10-172
Chloromethane	ug/L (ppb)	50	<10	93	25-166
Vinyl chloride	ug/L (ppb)	50	<0.2	87	36-166
Bromomethane	ug/L (ppb)	50	<1	113	47-169
Chloroethane	ug/L (ppb)	50	<1	109	46-160
Trichlorofluoromethane	ug/L (ppb)	50	<1	96	44-165
Acetone	ug/L (ppb)	250	<10	95	10-182
1,1-Dichloroethene	ug/L (ppb)	50	<1	96	60-136
Hexane	ug/L (ppb)	50	<1	95	52-150
Methylene chloride	ug/L (ppb)	50	<5	100	67-132
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	95	74-127
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	96	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	98	70-128
2,2-Dichloropropane	ug/L (ppb)	50	<1	101	36-154
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	98	71-127
Chloroform	ug/L (ppb)	50	<1	95	65-132
2-Butanone (MEK)	ug/L (ppb)	250	<10	104	10-129
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	98	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	93	60-146
1,1-Dichloropropene	ug/L (ppb)	50	<1	96	69-133
Carbon tetrachloride	ug/L (ppb)	50	<1	92	56-152
Benzene	ug/L (ppb)	50	<0.35	95	76-125
Trichloroethene	ug/L (ppb)	50	<1	92	66-135
1,2-Dichloropropane	ug/L (ppb)	50	<1	100	78-125
Bromodichloromethane	ug/L (ppb)	50	<1	97	61-150
Dibromomethane	ug/L (ppb)	50	<1	101	66-141
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	100	10-185
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	99	72-132
Toluene	ug/L (ppb)	50	<1	91	76-122
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	98	76-130
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	101	68-131
2-Hexanone	ug/L (ppb)	250	<10	101	10-185
1,3-Dichloropropane	ug/L (ppb)	50	<1	96	71-128
Tetrachloroethene	ug/L (ppb)	50	<1	92	10-226
Dibromochloromethane	ug/L (ppb)	50	<1	96	70-139
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	95	69-134
Chlorobenzene	ug/L (ppb)	50	<1	92	77-122
Ethylbenzene	ug/L (ppb)	50	<1	93	69-135
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	94	73-137
m,p-Xylene	ug/L (ppb)	100	<2	93	69-135
o-Xylene	ug/L (ppb)	50	<1	93	60-140
Styrene	ug/L (ppb)	50	<1	98	71-133
Isopropylbenzene	ug/L (ppb)	50	<1	95	65-142
Bromoform	ug/L (ppb)	50	<1	92	65-142
n-Propylbenzene	ug/L (ppb)	50	<1	96	58-144
Bromobenzene	ug/L (ppb)	50	<1	95	75-124
1,3,5-Trimethylbenzene	ug/L (ppb)	50	<1	96	66-137
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	102	51-154
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	98	53-150
2-Chlorotoluene	ug/L (ppb)	50	<1	95	66-127
4-Chlorotoluene	ug/L (ppb)	50	<1	94	65-130
tert-Butylbenzene	ug/L (ppb)	50	<1	95	65-137
1,2,4-Trimethylbenzene	ug/L (ppb)	50	<1	94	59-146
sec-Butylbenzene	ug/L (ppb)	50	<1	96	64-140
p-Isopropyltoluene	ug/L (ppb)	50	<1	95	65-141
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	92	72-123
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	89	69-126
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	93	69-128
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	97	32-164
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	90	66-136
Hexachlorobutadiene	ug/L (ppb)	50	<1	88	60-143
Naphthalene	ug/L (ppb)	50	<1	96	44-164
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	90	69-148

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/03/16

Date Received: 01/27/16

Project: 2015-165B, F&BI 601329

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	93	85	25-158	9
Chloromethane	ug/L (ppb)	50	81	77	45-156	5
Vinyl chloride	ug/L (ppb)	50	78	74	50-154	5
Bromomethane	ug/L (ppb)	50	107	102	55-143	5
Chloroethane	ug/L (ppb)	50	98	95	58-146	3
Trichlorofluoromethane	ug/L (ppb)	250	94	89	50-150	5
Acetone	ug/L (ppb)	250	89	83	53-131	7
1,1-Dichloroethene	ug/L (ppb)	50	86	85	67-136	1
Hexane	ug/L (ppb)	50	96	90	57-137	6
Methylene chloride	ug/L (ppb)	50	94	90	39-148	4
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	91	87	64-147	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	92	88	68-128	4
1,1-Dichloroethane	ug/L (ppb)	50	93	88	79-121	6
2,2-Dichloropropane	ug/L (ppb)	50	98	95	55-143	3
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	91	80-123	3
Chloroform	ug/L (ppb)	50	91	87	80-121	4
2-Butanone (MEK)	ug/L (ppb)	250	96	93	57-149	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	97	91	73-132	6
1,1,1-Trichloroethane	ug/L (ppb)	50	92	88	83-130	4
1,1-Dichloropropene	ug/L (ppb)	50	93	89	77-129	4
Carbon tetrachloride	ug/L (ppb)	50	91	88	75-158	3
Benzene	ug/L (ppb)	50	92	87	69-134	6
Trichloroethene	ug/L (ppb)	50	88	85	80-120	3
1,2-Dichloropropane	ug/L (ppb)	50	96	90	77-123	6
Bromodichloromethane	ug/L (ppb)	50	92	88	81-133	4
Dibromomethane	ug/L (ppb)	50	97	92	82-125	5
4-Methyl-2-pentanone	ug/L (ppb)	250	96	90	65-138	6
cis-1,3-Dichloropropene	ug/L (ppb)	50	96	90	82-132	6
Toluene	ug/L (ppb)	50	87	84	72-122	4
trans-1,3-Dichloropropene	ug/L (ppb)	50	93	88	80-136	6
1,1,2-Trichloroethane	ug/L (ppb)	50	95	90	75-124	5
2-Hexanone	ug/L (ppb)	250	93	86	60-136	8
1,3-Dichloropropane	ug/L (ppb)	50	90	85	76-126	6
Tetrachloroethene	ug/L (ppb)	50	89	85	76-121	5
Dibromochloromethane	ug/L (ppb)	50	91	88	84-133	3
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	89	84	82-125	6
Chlorobenzene	ug/L (ppb)	50	88	84	83-114	5
Ethylbenzene	ug/L (ppb)	50	89	85	77-124	5
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	90	88	84-127	2
m,p-Xylene	ug/L (ppb)	100	90	85	83-125	6
o-Xylene	ug/L (ppb)	50	89	85	81-121	5
Styrene	ug/L (ppb)	50	93	89	84-119	4
Isopropylbenzene	ug/L (ppb)	50	92	89	85-117	3
Bromoform	ug/L (ppb)	50	88	84	74-136	5
n-Propylbenzene	ug/L (ppb)	50	93	88	74-126	6
Bromobenzene	ug/L (ppb)	50	90	86	80-121	5
1,3,5-Trimethylbenzene	ug/L (ppb)	50	94	89	78-123	5
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	95	90	66-126	5
1,2,3-Trichloropropane	ug/L (ppb)	50	91	87	67-124	4
2-Chlorotoluene	ug/L (ppb)	50	92	87	77-127	6
4-Chlorotoluene	ug/L (ppb)	50	90	85	78-128	6
tert-Butylbenzene	ug/L (ppb)	50	93	89	80-123	4
1,2,4-Trimethylbenzene	ug/L (ppb)	50	92	88	79-122	4
sec-Butylbenzene	ug/L (ppb)	50	94	90	80-125	4
p-Isopropyltoluene	ug/L (ppb)	50	94	90	81-123	4
1,3-Dichlorobenzene	ug/L (ppb)	50	89	85	85-116	5
1,4-Dichlorobenzene	ug/L (ppb)	50	87	83 vo	84-121	5
1,2-Dichlorobenzene	ug/L (ppb)	50	91	87	85-116	4
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	94	90	57-141	4
1,2,4-Trichlorobenzene	ug/L (ppb)	50	90	88	72-130	2
Hexachlorobutadiene	ug/L (ppb)	50	89	87	53-141	2
Naphthalene	ug/L (ppb)	50	95	92	64-133	3
1,2,3-Trichlorobenzene	ug/L (ppb)	50	91	89	65-136	2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

601329

SAMPLE CHAIN OF CUSTODY ME 1/27/16

VS1/V1/B04

Send Report To Tamara Welty
Company The Riley Group
Address 17522 Bothell way NE
City, State, ZIP Bothell WA 98011
Phone # Fax #

SAMPLERS (signature) Stafford
PROJECT NAME/NO. 2015-165B
REMARKS

Page # 1 of 4
TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by
SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Table with columns: Sample ID, Lab ID, Date Sampled, Time Sampled, Sample Type, # of containers, ANALYSES REQUESTED (TPH-Diesel, TPH-Gasoline, BTEX by 8021B, VOCs by 8260, SVOCs by 8270, HFS), Notes. Rows include TP1-5, TP1-11, TP1-15, TP1-W, TP2-5, TP2-10, TP2-12, TP2-W, SV1-25, SV1-5.

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

Table with columns: SIGNATURE, PRINT NAME, COMPANY, DATE, TIME. Rows for Relinquished by (Stafford), Received by (Matt Lagerton), Relinquished by, Received by (Samples received at 2°C).

601329

SAMPLE CHAIN OF CUSTODY ME 1/27/16

VSI/VI/804 4

Send Report To Tamara Welty

Company The Riley Group

Address _____

City, State, ZIP _____

Phone # _____ Fax # _____

SAMPLERS (signature) <u>S. J. [Signature]</u>	
PROJECT NAME/NO. <u>2015-165B</u>	PO#
REMARKS	

Page # 2 of 4

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	ANALYSES REQUESTED										Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						
TP4-5	11	1/26/16	1050	soil	1	X											
TP4-10	12		1100		1												
x TP4-12	13		1120		1	X											
x TP4-15	14		1140	↓	1	X											
x TP4-w	15		1150	400	1 (4)	X											
TP3-5	16		1200	soil	1												
TP3-10	17		1205		1												
TP3-12	18		1210		1	X											
TP3-15	19		1215		1												
TP7-5	20	↓	105	↓	1												

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>Staffed Lab</u>	<u>RGE</u>	<u>1/22/16</u>	<u>1400</u>
Received by: <u>[Signature]</u>	<u>Matt Langston</u>	<u>FB Inc</u>	<u>1/27/16</u>	<u>1400</u>
Relinquished by: _____				
Received by: _____		Samples received at <u>2</u> °C		

601329

SAMPLE CHAIN OF CUSTODY ME 1/27/16

VSI/VI/Bo4 4
Page # 3 of 4

Send Report To Tamara Welty
Company The Riley Group
Address _____
City, State, ZIP _____
Phone # _____ Fax # _____

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME/NO. <u>2015-165B</u>	PO#
REMARKS	

TURNAROUND TIME	
<input type="checkbox"/> Standard (2 Weeks)	
<input type="checkbox"/> RUSH	
Rush charges authorized by _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Dispose after 30 days	
<input type="checkbox"/> Return samples	
<input type="checkbox"/> Will call with instructions	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED										Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						
TP7-10	21	1/26/16	110	soil	1												
TP7-15	22		120	↓	1												
TP7-w	23		175	H ₂ O	1												
TP6-5	24		210	soil	1												
TP6-11	25		215	↓	1												
TP6-15	26		225	↓	1												
TP5-5	27		240	↓	1	X											
TP5-11	28		250	↓	1												
TP5-15	29		300	↓	1												
TP5-w	30		310	H ₂ O	1	X											

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>Stiffel Larry</u>	<u>RBI</u>	<u>1/27/16</u>	<u>1400</u>
Received by: <u>[Signature]</u>	<u>Matt Langston</u>	<u>FBI</u>	<u>1/27/16</u>	<u>1400</u>
Relinquished by:				
Received by:				
Samples received at <u>2</u> °C				

601329

SAMPLE CHAIN OF CUSTODY ME 1/27/16

VSI/V1/B04
Page # 4 of 4

Send Report To Tamara Welty
Company The Riley Group
Address _____
City, State, ZIP _____
Phone # _____ Fax # _____

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME/NO. <u>2015-165 B</u>	PO#
REMARKS	

TURNAROUND TIME <input type="checkbox"/> Standard (2 Weeks) <input type="checkbox"/> RUSH Rush charges authorized by _____
SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED										Notes		
						No. Silica Sec/TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS							
TP8-9	31	1/26/16	330	soil	1													
TP8-11	32	↓	340	↓	1	X												
TP8-15	33	↓	350	↓	1													
TP9-W	34	↓	405	H ₂ O	1	X												

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>[Signature]</u>	REI	1/26/16	1400
Received by: <u>[Signature]</u>	Matt Langston	FBI Inc	1/27/16	1400
Relinquished by:				
Received by:				

Samples received at 2 °C

08 February 2016



Ms. Tamara Welty
The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

H&P Project: RG020116-12
Client Project: 2015-165B/ Prop. Marysville Sonic Ph II

Dear Ms. Tamara Welty:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 01-Feb-16 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,



Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP, the National Environmental Laboratory Accreditation Conference (NELAC) and the Department of Defense Accreditation Programs.

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV-1	E602006-01	Vapor	26-Jan-16	01-Feb-16

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

DETECTIONS SUMMARY

Sample ID: **SV-1**

Laboratory ID: **E602006-01**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Oxygen	21	0.20		%	ASTM D1945	
Toluene	13	3.8		ug/m3	EPA TO-15	
TPHv (C5 - C8) aliphatic	450	100		ug/m3	EPA TO-15	
TPHv (C9 - C12) aliphatic	220	100		ug/m3	EPA TO-15	

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-1 (E602006-01) Vapor Sampled: 26-Jan-16 Received: 01-Feb-16									
Carbon dioxide	ND	0.20	%	1	EB60309	03-Feb-16	03-Feb-16	ASTM D1945	
Oxygen	21	0.20	"	"	"	"	"	"	

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-1 (E602006-01) Vapor Sampled: 26-Jan-16 Received: 01-Feb-16									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EB60405	03-Feb-16	03-Feb-16	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Toluene	13	3.8	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	6.5	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.6	"	"	"	"	"	"	
n-Butylbenzene	ND	5.6	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %		76-134	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		106 %		78-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.0 %		77-127	"	"	"	"	

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Petroleum Hydrocarbon Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-1 (E602006-01) Vapor Sampled: 26-Jan-16 Received: 01-Feb-16									
TPHv (C5 - C8) aliphatic	450	100	ug/m3	1	EB60405	03-Feb-16	03-Feb-16	EPA TO-15	
TPHv (C9 - C12) aliphatic	220	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	ND	100	"	"	"	"	"	"	

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Soil Gas and Vapor Analysis - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB60309 - GC

Blank (EB60309-BLK1)

Prepared & Analyzed: 03-Feb-16

Carbon dioxide	ND	0.20	%							
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The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Volatile Organic Compounds by EPA TO-15 - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB60405 - TO-15

Blank (EB60405-BLK1)

Prepared & Analyzed: 03-Feb-16

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3							
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"							
1,2-Dichloroethane (EDC)	ND	4.1	"							
Benzene	ND	3.2	"							
Toluene	ND	3.8	"							
1,2-Dibromoethane (EDB)	ND	7.8	"							
Ethylbenzene	ND	4.4	"							
m,p-Xylene	ND	8.8	"							
o-Xylene	ND	4.4	"							
Isopropylbenzene (Cumene)	ND	5.0	"							
Bromobenzene	ND	6.5	"							
n-Propylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.6	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.6	"							
p-Isopropyltoluene	ND	5.6	"							
n-Butylbenzene	ND	5.6	"							
Naphthalene	ND	5.3	"							

Surrogate: 1,2-Dichloroethane-d4	45.4		"	42.9		106	76-134
Surrogate: Toluene-d8	42.0		"	41.4		101	78-125
Surrogate: 4-Bromofluorobenzene	67.4		"	72.9		92.4	77-127

LCS (EB60405-BS1)

Prepared & Analyzed: 03-Feb-16

1,2-Dichloroethane (EDC)	17	4.1	ug/m3	16.5		102	70-130
Benzene	13	3.2	"	13.0		103	70-130
Toluene	16	3.8	"	15.4		103	70-130
Ethylbenzene	19	4.4	"	17.7		109	70-130
m,p-Xylene	19	8.8	"	17.7		106	70-130
o-Xylene	20	4.4	"	17.7		112	70-130

Surrogate: 1,2-Dichloroethane-d4	45.1		"	42.9		105	76-134
Surrogate: Toluene-d8	42.5		"	41.4		103	78-125

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Volatile Organic Compounds by EPA TO-15 - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB60405 - TO-15

LCS (EB60405-BS1)

Prepared & Analyzed: 03-Feb-16

Surrogate: 4-Bromofluorobenzene	73.2		ug/m3	72.9		100	77-127			
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LCS Dup (EB60405-BSD1)

Prepared & Analyzed: 03-Feb-16

1,2-Dichloroethane (EDC)	16	4.1	ug/m3	16.5		99.9	70-130	2.10	25	
Benzene	13	3.2	"	13.0		103	70-130	0.484	25	
Toluene	16	3.8	"	15.4		101	70-130	1.02	25	
Ethylbenzene	20	4.4	"	17.7		115	70-130	5.30	25	
m,p-Xylene	19	8.8	"	17.7		108	70-130	1.77	25	
o-Xylene	21	4.4	"	17.7		116	70-130	3.85	25	

Surrogate: 1,2-Dichloroethane-d4	43.9		"	42.9		102	76-134			
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Surrogate: Toluene-d8	42.1		"	41.4		102	78-125			
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Surrogate: 4-Bromofluorobenzene	72.4		"	72.9		99.4	77-127			
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The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Petroleum Hydrocarbon Analysis - Quality Control
H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch EB60405 - TO-15

Blank (EB60405-BLK1)

Prepared & Analyzed: 03-Feb-16

TPHv (C5 - C8) aliphatic	ND	100	ug/m3							
TPHv (C9 - C12) aliphatic	ND	100	"							
TPHv (C9 - C10) aromatic	ND	100	"							

The Riley Group, Inc. (RGI)
17522 Bothell Way NE, Suite A
Bothell, WA 98011

Project: RG020116-12
Project Number: 2015-165B/ Prop. Marysville Sonic Ph II
Project Manager: Ms. Tamara Welty

Reported:
08-Feb-16 14:50

Notes and Definitions

LCC Leak Check Compound
ND Analyte NOT DETECTED at or above the reporting limit
MDL Method Detection Limit
%REC Percent Recovery
RPD Relative Percent Difference

Appendix

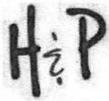
H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP and the ISO 17025 programs, certification number L11-175.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at www.handpmg.com/about/certifications.



H&P Mobile Geochemistry, Inc. 2470 Impala Drive, Carlsbad, CA 92010
 LA Field Office: 1855 Coronado Avenue, Signal Hill, CA 90755
 Ph: 800-834-9888 www.handpmg.com

Quotation for Vapor Sampling Supplies & Analysis

Quote Submitted by: Kristin Beckley for H&P, Inc.	Date: 1/19/2016
Project Location: Bothell, WA	Company: The Rily Group
Project Name: 2015-165B	Contact: Tamara Welty
Tentative Schedule: not scheduled	

**EPA Method TO-15
Soil Vapor VOC List**

<u>Compound</u>	<u>CAS #</u>	<u>400mL</u>		<u>400mL</u>	
		<u>400mL RL</u>	<u>MDL</u>	<u>400mL RL</u>	<u>MDL</u>
		<u>/apor (µg/m³)</u>	<u>apor (µg/m³)</u>	<u>Vapor (ppbv)</u>	<u>/apor (ppbv)</u>
Methyl tertiary-butyl ether (MTBE) *	1634-04-4	3.7	1.14	1.0	0.31
1,2-Dichloroethane (EDC) *	107-06-2	4.1	1.29	1.0	0.32
Benzene *	71-43-2	3.2	0.72	1.0	0.22
Toluene *	108-88-3	3.8	1.08	1.0	0.28
1,2-Dibromoethane (EDB) *	106-93-4	7.8	1.74	1.0	0.22
Ethylbenzene *	100-41-4	4.4	0.90	1.0	0.21
m,p-Xylene *	179601-23-1	8.8	2.12	2.0	0.48
o-Xylene *	95-47-6	4.4	1.13	1.0	0.26
Isopropylbenzene (Cumene) *	98-82-8	5.0	1.06	1.0	0.21
n-Propylbenzene *	103-65-1	5.0	1.20	1.0	0.24
Bromobenzene *	108-86-1	6.5	1.55	1.0	0.24
1,3,5-Trimethylbenzene *	108-67-8	5.0	1.52	1.0	0.31
tert-Butylbenzene,	98-06-6	5.6	1.25	1.0	0.22
1,2,4-Trimethylbenzene *	95-63-6	5.0	1.43	1.0	0.29
sec-Butylbenzene,	135-98-8	5.6	1.46	1.0	0.26
p-Isopropyltoluene,	99-87-6	5.6	1.41	1.0	0.25
n-Butylbenzene *	104-51-8	5.6	1.58	1.0	0.28
Naphthalene *	91-20-3	5.3	2.70	1.0	0.51

APH by Massachusetts method

(C5-C8) Aliphatics *	100
(C9-C12) Aliphatics.	100
(C9-C10) Aromatics *	100

Leak Check Compound

1,1-Difluoroethane (LCC)	75-37-6	5.4	2.0
--------------------------	---------	-----	-----

ASTM 1945-96

CO ₂ *	0.20%
O ₂ *	0.20%



MT. VIEW
LOCATING SERVICES, LLC

January 20, 2016

Riley Group
17522 Bothell Way NE
Bothell, WA 98011
Attn: Tamara Welty

Re: GPR Findings at 3710, 3724, 3806 116th St Ne – Marysville, WA

On 1/19/2016, Mt. View Locating Services, LLC performed a *GPR scan at the above address at the request of The Riley Group.

Technician met with crew onsite and 4 drill holes on 38th, located power and communication with GPR around 3 houses:

- 1) **Within the farthest house west, tech scanned for tanks and none were found.**
- 2) **Within the second house going east, tech found one tank mass on west side of house.**
- 3) **The last house, tech also found a tank on Westside of the house. Cleared two drill holes around tank.**

*GPR scans are limited to soil condition, pipe/tank size-material-depths as well as volume of buried utilities. No guarantees

Sincerely,

Mt View Locating Services, LLC
PO Box 40
Sumner, WA 98390
360-829-5166