January 15, 2019

Mr. Pui Leung
Roystone on Queen Anne, LLC
606 Maynard Avenue South #104
Seattle, Washington 98104

RE: Groundwater Monitoring – 4th Quarter 2018
Proposed Roystone on Queen Anne Redevelopment
631 Queen Anne Avenue North
Seattle, Washington 98109
VCP Project No. NW3197
RGI Project No. 2017-015H

Dear Mr. Leung:

The Riley Group, Inc. (RGI) is pleased to present this 2018 Fourth Quarter Groundwater Monitoring Report (2018-Q4 GWM Report) for the Roystone on Queen Anne property located at 631 Queen Anne Avenue North, Seattle, Washington (herein referred to as the Property). The general location of the Property is depicted on Figure 1. Figure 2 depicts the Property layout with pertinent features.

The Property has been enrolled in the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) and is identified as the Texaco 211577 project with VCP Project No. NW3197. All previous investigation reports associated with the Property have been submitted to Ecology under the VCP.

Roystone on Queen Anne (hereafter referred to as the Client) retained RGI to perform the groundwater sampling activities documented herein. The scope of work for this project was performed in general accordance with RGI's *Proposal for Service*s dated October 19, 2018 by RGI. This scope of work was authorized by the Client on October 25, 2018.

RGI understands that the Client intends to redevelop the Property as a multi-use residential building beginning in mid-2019. Data obtained from this groundwater sampling event will be used to establish baseline groundwater conditions prior to decommissioning of the wells, which will take place prior to redevelopment.

SCOPE OF WORK

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

- Measured depth to water in 10 groundwater monitoring and remediation wells.
- Collected groundwater samples from groundwater monitoring wells (MW6, MW9, MW10, SSIW1, and SSIW2) and wells associated with previous remediation systems (DPE5, DPE6, DPE7, and VP9). Well MW13 had an insufficient volume of water to obtain a sample.

- Submitted samples to the laboratory for analyses of contaminants of potential concern (COPCs).
- Compared groundwater analytical results to cleanup levels that comply with the Model Toxics Control Act (MTCA).
- Generated groundwater elevation contours and determined groundwater flow direction and hydraulic gradient across the Property.
- Prepared this 2018 Fourth Quarter Groundwater Monitoring Report presenting our findings, observations, conclusions, and recommendations.

2018 FOURTH QUARTER GROUNDWATER SAMPLING EVENT

On November 13 2018, RGI sampled two on-Property groundwater monitoring wells (MW6 and MW9), three off-Property groundwater monitoring wells (MW10, SSIW1, and SSIW2), and four on-Property wells associated with previous remediation systems (DPE5, DPE6, DPE7, and VP9). DPE5 was resampled on November 21, 2018 due to the slow recharge in this location after purging. Details pertaining to this work are discussed below.

Prior to groundwater sampling, the depth to groundwater was measured at 10 on- and off-Property wells from the northernmost point of the top of each well casing using an electronic water level meter.

After collection of groundwater level data, wells were purged using a peristaltic pump and dedicated tubing. Measurements of water quality parameters (temperature, pH, and conductivity) were collected using a Hanna meter and a Horiba with a flow through cell. Purging continued until either water quality parameters had stabilized or three wetted casing volumes of groundwater were purged from each well at which time groundwater samples were collected.

During sample collection, the flow rate of the pump was reduced to less than 100 milliliters per minute (mL/min) in accordance with standard low flow sampling techniques. Groundwater was pumped directly through dedicated tubing into laboratory-supplied containers appropriate for the intended analyses. Samples collected for dissolved lead analysis were filtered in the field using a 0.45 or 0.1 micron filter. A total of nine groundwater samples were submitted for analyses. No groundwater sample was collected from well MW13 due to insufficient volume of water for sampling.

The top of casing (TOC) elevation for wells MW6, MW9, MW13, VP9, MW10, SSIW1, and SSIW2 were surveyed by a licensed surveyor under a contract with the Client in December of 2018. TOC elevation data for these wells is summarized in Table 1. TOC elevations were not obtained from wells DPE5, DPE6, DPE7, and RW4 and RGI does not have any additional information regarding this. Therefore, previous top of casing elevations, which were obtained by others and based on arbitrary datum, are presented in Table 1.

Depth to groundwater measurements for all wells ranged from 9.54 feet to 21.17 feet below well TOC. Corresponding groundwater elevations for the wells that were recently surveyed ranged from 124.38’ to 136.91’. Groundwater elevation contours were generated for the recently survey wells and are presented on Figure 3. Groundwater flow direction was to the west-southwest with an approximate hydraulic gradient of 0.08 ft/ft (MW10 to MW6). This is consistent with the flow direction and hydraulic gradient observed during previous groundwater sampling events. Groundwater elevation data obtained from VP9 (a well formerly used for vapor extraction) was not included when generating elevation contours due to the fact that the groundwater elevation

data is based on a much shallower screened interval (compared to most other wells) and was considered anomalous.

Standard Sampling Protocols

All groundwater samples obtained during this project were collected in accordance with RGI's standard operating and decontamination procedures. Samples were placed in preconditioned, sterilized containers provided by an Ecology accredited analytical laboratory. All reusable equipment was decontaminated between sample locations.

All samples were appropriately labeled and stored in an iced cooler and transported to the analytical laboratory using standard chain-of-custody protocols.

Investigation Derived Waste

Investigation derived waste (IDW) consisted of purge water generated during sampling of wells. All purge water was placed in one 55-gallon steel drum, labeled non-hazardous waste, and temporarily stored in fenced area the southwestern portion of the Property.

ANALYTICAL LABORATORY ANALYSES

A total of nine groundwater samples were collected during this project and submitted to Friedman & Bruya Laboratory in Seattle, Washington, for one or more of the following analyses:

- Gasoline-range TPH using Method NWTPH-Gx.
- Diesel- and oil-range TPH using Method NWTPH-Dx with and without silica gel cleanup.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021B.
- Volatile Organic Compounds (VOCs) using EPA Method 8260C.
- Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) using EPA Method 8270 SIM
- Dissolved lead using EPA Method 6020B.

Groundwater analytical results are summarized in Table 1 and displayed graphically on Figure 3. Copies of the analytical laboratory reports and associated sample chain-of-custody forms are included in Appendix A.

Groundwater Analytical Results

Diesel-range TPH was detected at flagged concentrations ranging from 1,000 micrograms/liter (µg/L) to 4,100 µg/L in wells MW6, DPE5, DPE6, and DPE7. These concentrations exceed the applicable Model Toxics Control Act (MTCA) groundwater cleanup level of 500 µg/L.

RGI contacted the laboratory regarding the flagged diesel-range TPH concentrations and the laboratory indicated that the flag may be due to, or partially due to, the presence of naturally occurring biogenic compounds in the sample that can interfere with the diesel-range TPH analysis. Based on this information and authorization from the Client, RGI requested that these samples be analyzed using silica gel cleanup to remove any potential interference from biogenic compounds. After analysis using silica gel cleanup, diesel-range TPH only exceeded the MTCA groundwater cleanup level in well MW6 where diesel-range TPH concentration was 570 µg/L. MW6 originally had a flagged concentration of 1,000 µg/L. The sample analyzed using silica gel cleanup was also flagged, but the flag was attributed to overlap from the gasoline-range TPH.

In order for Ecology to accept groundwater data under MTCA Method A using silica gel cleanup it

must be demonstrated that organics (peat, wood etc.) are present in the subsurface on the Property. However, given the fact that silica gel cleanup has proven to reduce diesel-range TPH concentrations significantly, RGI recommends evaluating groundwater using a Method B fractionation approach which has silica gel cleanup built into the Ecology-approved method and is accepted by Ecology.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained during this 2018 fourth quarter groundwater monitoring event, RGI concludes the following:

- Groundwater flow direction across the Property is to the west-southwest and this flow direction is consistent with previous groundwater sampling events.
- Groundwater on the central, western, and southwestern portions of the Property is impacted with concentrations of diesel-range TPH that exceed the applicable MTCA groundwater cleanup level. No groundwater data was available for the northeastern portion of the Property. Therefore, it is unknown if groundwater is impacted in this location.

RGI recommends the following:

- Submit this 2018 Fourth Quarter Groundwater Monitoring Report to Ecology under the VCP.
- Evaluate groundwater using a Method B fractionation approach either prior to redevelopment or after cleanup is completed.

LIMITATIONS

This report is the property of RGI, Roystone on Queen Anne 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 Roystone on Queen Anne property located at 631 Queen Anne Avenue North in Seattle, Washington. No other warranty, expressed or implied. Please contact us at (425) 415-0551 if you have any questions or need additional information.

Sincerely,

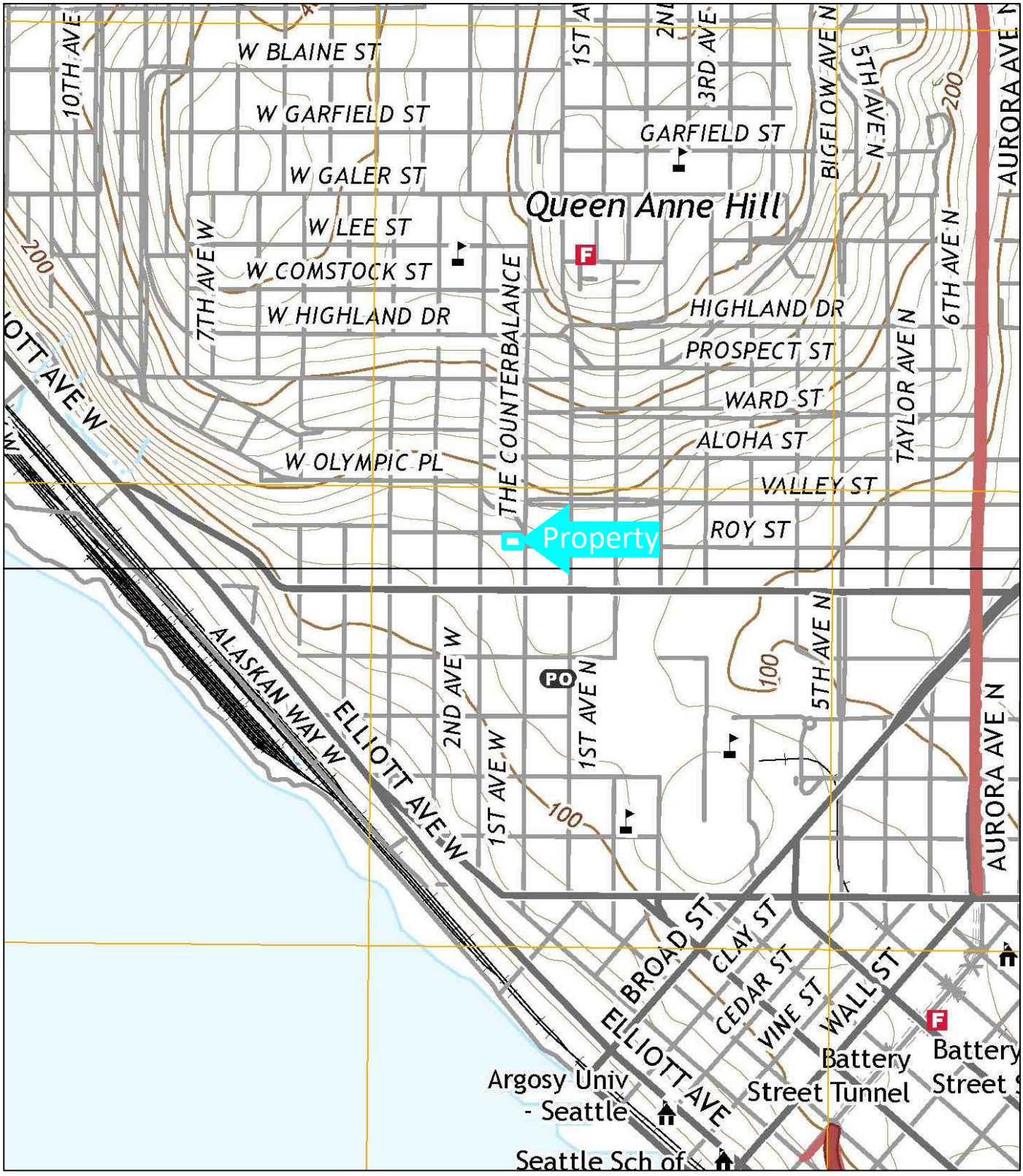
THE RILEY GROUP, INC.

Jerry Sawetz
Senior Environmental Scientist

Paul D. Riley, LG, LHG
Principal

Attachments *Figure 1, Property Vicinity Map*
Figure 2, Property Representation Map With Historical Features and Soil Select Analytical Data
Figure 3, November 13, 2018 Groundwater Elevation Contours With Analytical Data
Table 1, Summary of Groundwater Analytical Laboratory Results
Appendix A, Analytical Laboratory Reports and Chains of Custody

Distribution *Mr. Pui Leung, Roystone on Queen Anne, LLC (1 PDF copy)*
Ms. Jing Song, Washington Department of Ecology



USGS, 2017, Seattle North, Washington
USGS, 2017, Seattle South, Washington
7.5-Minute Quadrangle

Approximate Scale: 1"=1000'

0 500 1000 2000

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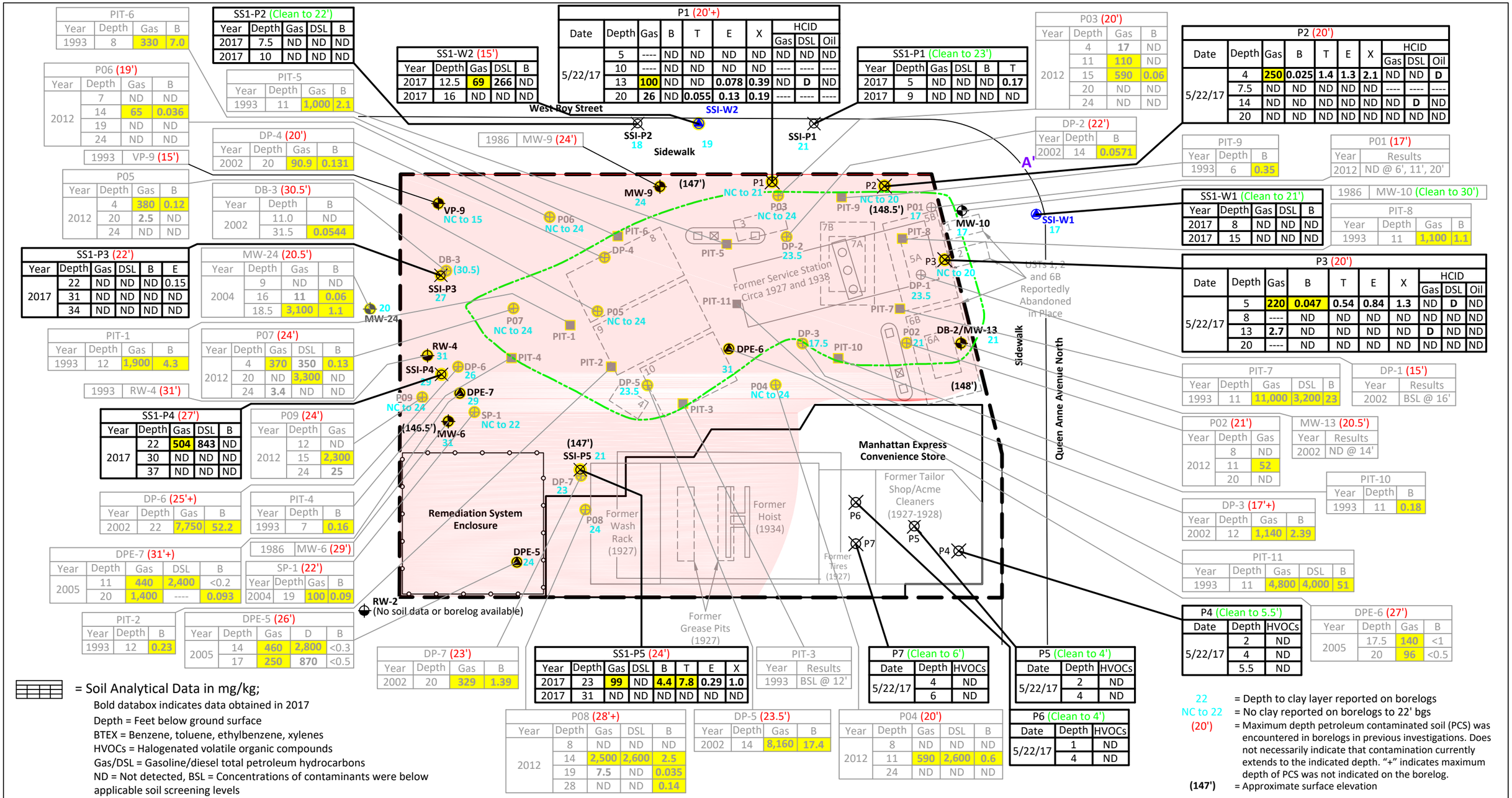
Roystone on Queen Anne		Figure 1
RGI Project Number 2017-015H	Property Vicinity Map	Date Drawn: 01/2019
Address: 631 Queen Anne Avenue North, Seattle, Washington 98109		



PIT-6			
Year	Depth	Gas	B
1993	8	330	7.0

SS1-P2 (Clean to 22')				
Year	Depth	Gas	DSL	B
2017	7.5	ND	ND	ND
2017	10	ND	ND	ND

P1 (20'+)									
Date	Depth	Gas	B	T	E	X	HCID		
							Gas	DSL	Oil
5/22/17	5	----	ND	ND	ND	ND	ND	ND	ND
	10	----	ND	ND	ND	ND	----	----	----
	13	100	ND	ND	0.078	0.39	ND	D	ND
	20	26	ND	0.055	0.13	0.19	----	----	----

SS1-W2 (15')				
Year	Depth	Gas	DSL	B
2017	12.5	69	266	ND
2017	16	ND	ND	ND

SS1-P1 (Clean to 23')					
Year	Depth	Gas	DSL	B	T
2017	5	ND	ND	ND	0.17
2017	9	ND	ND	ND	ND

P03 (20')			
Year	Depth	Gas	B
2012	4	17	ND
	11	110	ND
	15	590	0.06
	20	ND	ND
	24	ND	ND

P2 (20')									
Date	Depth	Gas	B	T	E	X	HCID		
							Gas	DSL	Oil
5/22/17	4	250	0.025	1.4	1.3	2.1	ND	ND	D
	7.5	ND	ND	ND	ND	ND	----	----	----
	14	ND	ND	ND	ND	ND	ND	D	ND
	20	ND	ND	ND	ND	ND	ND	ND	ND

P06 (19')			
Year	Depth	Gas	B
2012	7	ND	ND
	14	65	0.036
	19	ND	ND
	24	ND	ND

PIT-5			
Year	Depth	Gas	B
1993	11	1,000	2.1

DP-2 (22')		
Year	Depth	B
2002	14	0.0571

PIT-9		
Year	Depth	B
1993	6	0.35

P01 (17')	
Year	Results
2012	ND @ 6', 11', 20'

1993	VP-9 (15')

DP-4 (20')			
Year	Depth	Gas	B
2002	20	90.9	0.131

1986	MW-9 (24')

SS1-W1 (Clean to 21')				
Year	Depth	Gas	DSL	B
2017	8	ND	ND	ND
2017	15	ND	ND	ND

1986	MW-10 (Clean to 30')

P05			
Year	Depth	Gas	B
2012	4	380	0.12
	20	2.5	ND
	24	ND	ND

DB-3 (30.5')		
Year	Depth	B
2002	11.0	ND
	31.5	0.0544

PIT-8			
Year	Depth	Gas	B
1993	11	1,100	1.1

P3 (20')									
Date	Depth	Gas	B	T	E	X	HCID		
							Gas	DSL	Oil
5/22/17	5	220	0.047	0.54	0.84	1.3	ND	D	ND
	8	----	ND	ND	ND	ND	ND	ND	ND
	13	2.7	ND	ND	ND	ND	D	ND	ND
	20	----	ND	ND	ND	ND	ND	ND	ND

SS1-P3 (22')					
Year	Depth	Gas	DSL	B	E
2017	22	ND	ND	ND	0.15
	31	ND	ND	ND	ND
	34	ND	ND	ND	ND

MW-24 (20.5')			
Year	Depth	Gas	B
2004	9	ND	ND
	16	11	0.06
	18.5	3,100	1.1

PIT-7				
Year	Depth	Gas	DSL	B
1993	11	11,000	3,200	23

DP-1 (15')	
Year	Results
2002	BSL @ 16'

PIT-1			
Year	Depth	Gas	B
1993	12	1,900	4.3

P07 (24')				
Year	Depth	Gas	DSL	B
2012	4	370	350	0.13
	20	ND	3,300	ND
	24	3.4	ND	ND

P02 (21')		
Year	Depth	Gas
2012	8	ND
	11	52
	20	ND

MW-13 (20.5')	
Year	Results
2002	ND @ 14'

1993	RW-4 (31')

SS1-P4 (27')				
Year	Depth	Gas	DSL	B
2017	22	504	843	ND
	30	ND	ND	ND
	37	ND	ND	ND

P09 (24')		
Year	Depth	Gas
2012	12	ND
	15	2,300
	24	25

PIT-10		
Year	Depth	B
1993	11	0.18

DP-3 (17'+)			
Year	Depth	Gas	B
2002	12	1,140	2.39

PIT-11				
Year	Depth	Gas	DSL	B
1993	11	4,800	4,000	51

DP-6 (25'+)			
Year	Depth	Gas	B
2002	22	7,750	52.2

PIT-4		
Year	Depth	B
1993	7	0.16

1986	MW-6 (29')

DPE-7 (31'+)				
Year	Depth	Gas	DSL	B
2005	11	440	2,400	<0.2
	20	1,400	----	0.093

SP-1 (22')			
Year	Depth	Gas	B
2004	19	100	0.09

P4 (Clean to 5.5')		
Date	Depth	HVOCs
5/22/17	2	ND
	4	ND
	5.5	ND

DPE-6 (27')			
Year	Depth	Gas	B
2005	17.5	140	<1
	20	96	<0.5

PIT-2		
Year	Depth	B
1993	12	0.23

DPE-5 (26')				
Year	Depth	Gas	D	B
2005	14	460	2,800	<0.3
	17	250	870	<0.5

DP-7 (23')			
Year	Depth	Gas	B
2002	20	329	1.39

SS1-P5 (24')							
Year	Depth	Gas	DSL	B	T	E	X
2017	23	99	ND	4.4	7.8	0.29	1.0
2017	31	ND	ND	ND	ND	ND	ND

PIT-3	
Year	Results
1993	BSL @ 12'

P7 (Clean to 6')		
Date	Depth	HVOCs
5/22/17	4	ND
	6	ND

P5 (Clean to 4')		
Date	Depth	HVOCs
5/22/17	2	ND
	4	ND

P6 (Clean to 4')		
Date	Depth	HVOCs
5/22/17	1	ND
	4	ND

P08 (28'+)				
Year	Depth	Gas	DSL	B
2012	8	ND	ND	ND
	14	2,500	2,600	2.5
	19	7.5	ND	0.035
	28	ND	ND	0.14

DP-5 (23.5')			
Year	Depth	Gas	B
2002	14	8,160	17.4

P04 (20')				
Year	Depth	Gas	DSL	B
2012	8	ND	ND	ND
	11	590	2,600	0.6
	24	ND	ND	ND

= Soil Analytical Data in mg/kg;

Bold databox indicates data obtained in 2017

Depth = Feet below ground surface

BTEX = Benzene, toluene, ethylbenzene, xylenes

HVOCs = Halogenated volatile organic compounds

Gas/DSL = Gasoline/diesel total petroleum hydrocarbons

ND = Not detected, BSL = Concentrations of contaminants were below applicable soil screening levels

Bold and yellow highlight indicates concentrations above MTCA soil screening levels. Highlighted symbol indicates location that contains, or is suspected to contain, concentrations of COCs above soil MTCA Cleanup levels.

22 = Depth to clay layer reported on borelogs

NC to 22 = No clay reported on borelogs to 22' bgs

(20') = Maximum depth petroleum contaminated soil (PCS) was encountered in borelogs in previous investigations. Does not necessarily indicate that contamination currently extends to the indicated depth. "+" indicates maximum depth of PCS was not indicated on the borelog.

(147') = Approximate surface elevation

= Estimated location of remedial excavation of contaminated soil at depths ranging from 5' to approximately 27' bgs

P4 = RGI test probe location, P1 - P7 drilled May 2017 and SSI-P1 - SSI-P5 drilled December 2017

SSI-W1 = Existing groundwater monitoring well location. SSI-W1 and SSI-W2 installed by RGI in December 2017

MW-14 = Monitoring well by others

DPE-5 = Extraction well by others

RW-4 = Recovery well by others

DB,SP&DP = Soil boring by others

P09 = Soil boring (Sound Earth 2012)

Pit-1 = 1993 UST excavation sample

= Fence

= Approximate location of 1993 UST excavation boundary

= Property boundary

Approximate Scale: 1"=20'

0 10 20 40

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Roystone on Queen Anne		Figure 2
RGI Project Number 2017-015H	Property Representation Map With Historical Features and Select Soil Analytical Data	Date Drawn: 01/2019
Address: 631 Queen Anne Avenue North, Seattle, Washington 98109		

MW-9													
Date	LNAPL	Gas	DSL	Oil	DSL*	Oil*	B	T	E	X	cPAHs	HVOCs	VOCs
11/13/18	----	ND	**440x**	ND	**140**	ND	ND	ND	ND	ND	ND	----	ND
08/15/17	ND	----	**1,500x**	**490x**	----	----	----	----	----	----	----	----	----
04/06/17	ND	**480**	----	----	----	----	ND	**2.2**	**1.8**	**3.4**	----	ND	----
03/1991	**0.17**	----	----	----	----	----	----	----	----	----	----	----	----

VP-9					
Date	LNAPL	Gas	DSL	Oil	BTEX
11/13/18	----	ND	ND	ND	ND
01/2005	ND	**100**	ND	ND	ND

RW-4	Manhole Cover Not Readily Accesible (2018)

MW-24 (Located Off-Property)							
Date	LNAPL	Gas	DSL	Oil	B	PCE	TCE
01/2005	ND	ND	ND	ND	ND	ND	ND

DPE-7													
Date	LNAPL	Gas	DSL	Oil	DSL*	Oil*	B	Naph	cPAHs	PCE	TCE	HVOCs	Pb
11/13/18	----	**700**	**4,100x**	**850x**	**430x**	ND	**3.3**	**1.3**	ND	----	----	----	ND
04/06/17	ND	----	----	----	----	----	----	----	----	ND	ND	ND	----
11/03/08	**0.01**	----	----	----	----	----	----	----	----	----	----	----	----
04/2008	ND	ND	**6,100**	ND	----	----	**7**	----	----	----	----	----	----

MW-6												
Date	LNAPL	Gas	DSL	Oil	DSL*	Oil*	B	T	E	X	cPAHs	VOCs
11/13/18	----	**110**	**1,000x**	ND	**570x**	ND	**0.89**	ND	ND	ND	ND	BSL
11/13/13	ND	**94**	**340**	ND	----	----	**3**	ND	**0.6**	**0.5**	----	----
04/2004	**0.02**	----	----	----	----	----	----	----	----	----	----	----

DPE-5											
Date	LNAPL	Gas	DSL	Oil	DSL*	Oil*	B	PCE	TCE	HVOCs	Pb
11/21/18	----	ND	**1,300x**	**420x**	**99**	ND	**1.6**	----	----	----	**1.37**
04/07/17	ND	----	----	----	----	----	----	ND	ND	ND	----
11/13/13	ND	**5,400**	**150**	ND	----	----	**44**	----	----	----	----
01/2006	**0.05**	----	----	----	----	----	----	----	----	----	----

RW-2 (Located Off-Property)								
Date	LNAPL	Gas	DSL	Oil	B	T	E	X
11/13/13	ND	ND	ND	ND	**2**	ND	ND	ND
03/1991	**0.08**	----	----	----	**19,000**	**46,000**	**2,500**	**120,000**

SSI-P2 (Grab Sample)					
Date	LNAPL	Gas	DSL	Oil	BTEX
12/02/17	ND	ND	ND	ND	ND

SSI-W2 (Located Off-Property)					
Date	LNAPL	Gas	DSL	Oil	BTEX
11/13/18	----	ND	ND	ND	ND
12/06/17	ND	ND	ND	ND	ND

P1-W (Grab Sample)								
Date	LNAPL	Gas	DSL	Oil	B	T	E	X
05/22/17	ND	**7,100**	**110,000ve**	**3,800x**	ND	**12**	**5.4**	**27**

SSI-P1 (Grab Sample)					
Date	LNAPL	Gas	DSL	Oil	BTEX
12/02/17	ND	ND	ND	ND	ND

P2-W (Grab Sample)								
Date	LNAPL	Gas	DSL	Oil	B	T	E	X
05/22/17	ND	ND	ND	ND	ND	ND	ND	ND

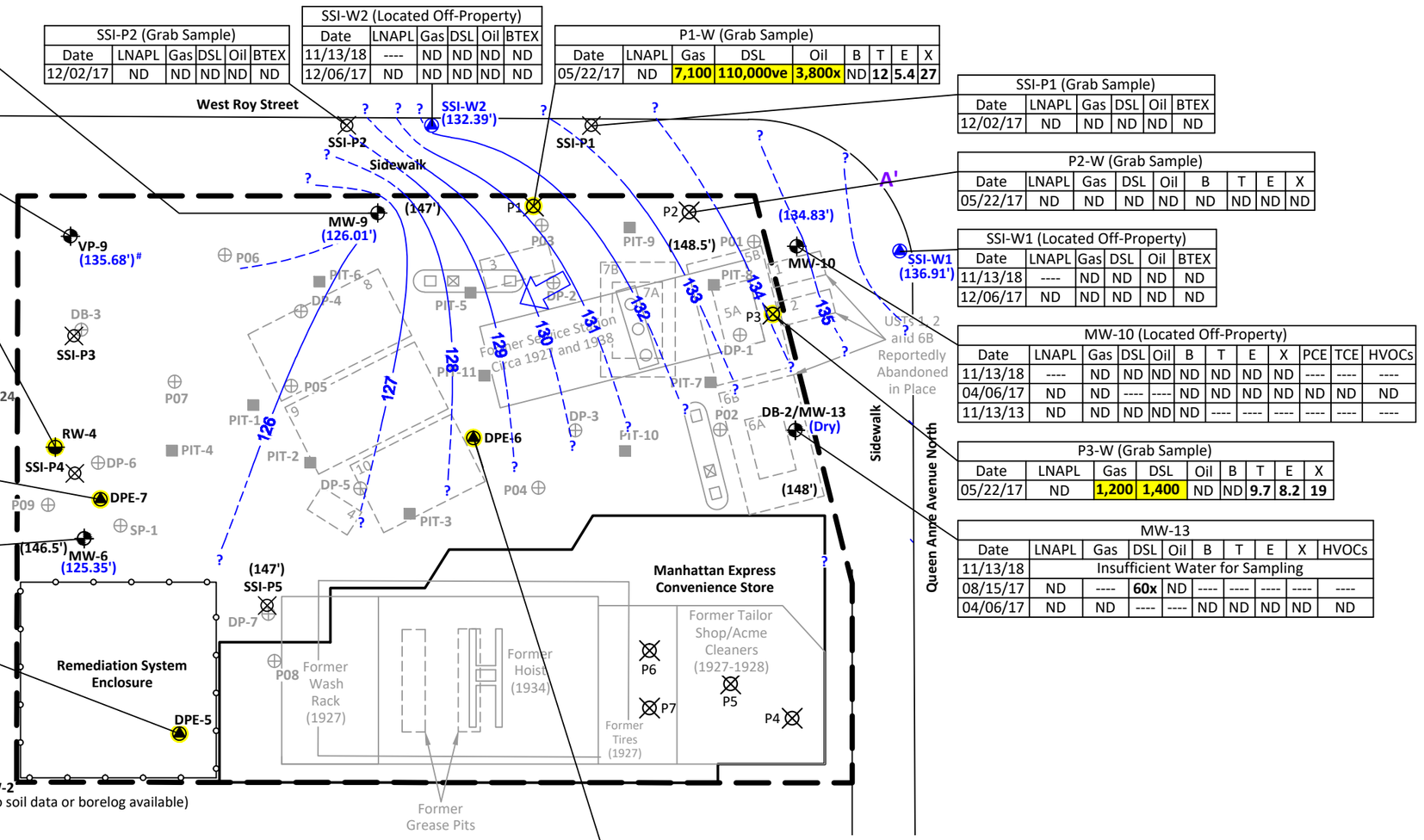
SSI-W1 (Located Off-Property)					
Date	LNAPL	Gas	DSL	Oil	BTEX
11/13/18	----	ND	ND	ND	ND
12/06/17	ND	ND	ND	ND	ND

MW-10 (Located Off-Property)											
Date	LNAPL	Gas	DSL	Oil	B	T	E	X	PCE	TCE	HVOCs
11/13/18	----	ND	ND	ND	ND	ND	ND	ND	----	----	----
04/06/17	ND	ND	----	----	ND	ND	ND	ND	ND	ND	ND
11/13/13	ND	ND	ND	ND	ND	----	----	----	----	----	----

P3-W (Grab Sample)								
Date	LNAPL	Gas	DSL	Oil	B	T	E	X
05/22/17	ND	**1,200**	**1,400**	ND	ND	**9.7**	**8.2**	**19**

MW-13									
Date	LNAPL	Gas	DSL	Oil	B	T	E	X	HVOCs
11/13/18	Insufficient Water for Sampling								
08/15/17	ND	----	**60x**	ND	----	----	----	----	----
04/06/17	ND	ND	----	----	ND	ND	ND	ND	ND

DPE-6												
Date	LNAPL	Gas	DSL	Oil	DSL*	Oil*	B	PCE	TCE	HVOCs	VOCs	Pb
11/13/18	----	ND	**3,300x**	**610x**	**180**	ND	ND	ND	ND	----	ND	ND
04/06/17	ND	----	----	----	----	----	----	ND	ND	ND	----	----
11/13/13	ND	**140**	**1,100**	ND	----	----	**7**	----	----	----	----	----



= Groundwater Analytical Data in micrograms per liter (ug/L);

LNAPL = Light non-aqueous phase liquid. If LNAPL was historically detected in the well, the most recent date LNAPL was detected is displayed along with the thickness of LNAPL observed in feet. ND indicates LNAPL was not observed.
Gas/DSL/Oil = Gasoline/diesel/oil total petroleum hydrocarbons. An asterisk (*) indicates the sample was analyzed using silica gel cleanup.
BTEX = Benzene, toluene, ethylbenzene, xylenes
Naph = Napthalenes, cPAHs = Carcinogenic polycyclic aromatic hydrocarbons
PCE, TCE, HVOCs, VOCs = Tetrachloroethene, trichloroethene, halogenated volatile organic compounds, volatile organic compounds
Pb = Dissolved lead
x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
ND = Not detected, ---- = Not sampled or not applicable
Bold and yellow highlight (if any) indicates concentrations above MTCA Groundwater cleanup levels.
BSL = Either not detected at a concentration above the laboratory detection limit or detected at a concentration below the groundwater screening level

Note: This figure includes the most recent groundwater results, not all historical data is shown here. See Table 1 for a summary of all groundwater data pertaining to the Property.

(147') = Approximate surface elevation

\# = Groundwater elevation from VP9 appeared anomalous and was omitted from the groundwater elevation contour data set

(92.42') = Groundwater elevation measured on 11/13/18

= Groundwater flow direction

= Property boundary

P4 = RGI test probe location, P1 - P7 drilled May 2017 and SSI-P1 - SSI-P5 drilled December 2017

SSI-W1 = Existing groundwater monitoring well location. SSI-W1 and SSI-W2 installed by RGI in December 2017

MW-14 = Monitoring well by others

DPE-5 = Extraction well by others

RW-4 = Recovery well by others

DB,SP&DP = Soil boring by others

P09 = Soil boring (Sound Earth 2012)

Pit-1 = 1993 UST excavation sample

Approximate Scale: 1"=20'

0 10 20 40

N

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17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
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Roystone on Queen Anne		Figure 3
RGI Project Number 2017-015H	November 13, 2018 Groundwater Elevation Contours With Analytical Data	Date Drawn: 01/2019
Address: 631 Queen Anne Avenue North, Seattle, Washington 98109		

Table 1, Page 1 of 6. Summary of Groundwater Analytical Laboratory Results for the Property
Roystone on Queen Anne
631 Queen Anne Avenue North, Seattle, Washington 98109
The Riley Group, Inc. Project No. 2017-015H

Sample Number	Sample Date	TOC Elevation (ft)	Depth to Water Below Well TOC (ft)	LNAPL Thickness (ft)	Groundwater Elevation (ft)	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	Naph.	cPAHs	MTBE	EDB	EDC	PCE	TCE	cis-1,2-DCE	Other VOCs[7]	Total Pb	Dissolved Pb	Dissolved As	Other Metals
							B	T	E	X	without silica gel		with silica gel														
On-Property Groundwater Monitoring Wells																											
MW6	**Screened Interval 15-29 feet bgs, 2-Inch Diameter Casing**																										
MW6	11/13/18	146.05	20.70	0.00	125.35	**110**	**0.89**	ND<1	ND<1	ND<3	**1,000 x**	ND<250	**570 x**	ND<250	ND<0.8	ND	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND	----	----	----	----
	11/11-13/13[3]	146.05	19.87	0.00	126.18	**97**	**3**	ND<0.5	**0.6**	**0.5**	**340**	ND<70	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/20-22/13[3]	146.05	18.47	0.00	127.58	**280**	**5**	ND<0.5	**0.5**	**0.6**	**600**	ND<71	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/12-14/12[3]	146.05	19.74	0.00	126.31	**370**	**9**	**1**	**2**	**3**	**1,600**	**190**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/07-08/12[3]	146.05	18.50	0.00	127.55	**250**	**1**	ND<0.5	ND<0.5	ND<0.5	**540**	ND<70	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/10-12/11[3]	146.05	18.32	0.00	127.73	**600**	**12**	**0.7**	**1**	**0.9**	**12,000**	**1,500**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/17-20/11[3]	146.05	18.24	0.00	127.81	**130**	**4**	ND<0.5	ND<0.5	ND<0.5	**12,000**	**4,600**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/19-22/10[3]	146.05	18.83	0.00	127.22	**650**	**24**	**0.9**	**0.6**	**1**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/12-15/09[3]	146.05	20.28	0.00	125.77	**1,200**	**16**	**1**	**0.5**	**2**	**5,100**	ND<660	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/13-16/09[3]	146.05	20.18	0.00	125.87	**1,100**	**31**	**0.8**	**2**	**3**	**26,000**	**3,000**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/10/08[3]	146.05	20.93	0.00	125.12	ND<50.0	**0.6**	ND<0.5	ND<0.5	ND<0.5	**3,200**	ND<660	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/28-05/01/08	146.05	22.28	0.00	123.77	**360**	**3**	**0.7**	**5**	**3**	**8,600**	**1,200**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	08/09/06	113.32[6]	25.85	0.00	87.47	**15,000**	**1,900**	**1,000**	**590**	**1,700**	**14,000**	ND<2,300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/18-21/05	113.32[6]	20.31	0.00	93.01	**3,600**	**1,000**	**120**	**110**	**360**	**7,700**	ND<1,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/24-31/05	113.32[6]	20.38	0.00	92.94	**5,600**	**220**	**60**	**110**	**310**	**11,000**	ND<480	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/28-11/01/04	113.32[6]	20.93	0.00	92.39	**24,000**	**8,600**	**2,800**	**690**	**3,100**	**9,200**	ND<96	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	7/15-16/04	113.32[6]	20.48	0.00	92.84	**46,600**	**9,610**	**3,190**	**758**	**3,060**	**3,800**	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	**1.69**	----	----
	4/29-30/04	113.32[6]	20.22	**0.02**	93.12	Not sampled due to the presence of LNAPL																					
	10/01-02/03	113.32[6]	23.07	**0.03**	90.27	Not sampled due to the presence of LNAPL																					
	06/30-07/01/03	113.32[6]	21.41	**0.03**	91.93	Not sampled due to the presence of LNAPL																					
	4/23-24/03	113.32[6]	20.91	**0.03**	92.43	Not sampled due to the presence of LNAPL																					
	01/21/03	113.32[6]	21.74	**0.03**	91.60	Not sampled due to the presence of LNAPL																					
	10/17-18/02	113.32[6]	20.69	**0.05**	92.67	Not sampled due to the presence of LNAPL																					
	07/24/02	113.32[6]	19.76	0.00	93.56	**31,000**	**8,900**	**1,600**	**820**	**4,200**	**29,000**	ND<10,000	----	----	----	----	----	----	----	----	----	----	----	----	**5.1**	----	----
	01/1997	113.38[6]	----	----	----	**54,000**	**7,290**	**12,400**	**2,340**	**19,800**	----	----	----	----	----	----	----	----	----	ND<1,000	ND<1,000	ND<1,000	----	----	**61.9**	----	----
	10/1995	113.38[6]	----	----	----	**62,000**	**12,000**	**13,800**	**920**	**5,690**	----	----	----	----	----	----	----	----	----	**1.6**	**2.3**	**2.9**	----	----	**33.3**	----	----
	07/07/93	113.38[6]	22.30	**1.60**	92.36	Not sampled due to the presence of LNAPL																					
	03/26-28/91	113.38[6]	21.22	**0.67**	92.70	----	**25,000**	**29,000**	**2,500**	**19,000**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	09/1990	113.38[6]	21.95	**0.81**	92.08	Not sampled due to the presence of LNAPL																					
	11/03/86	113.71[6]	24.29	**2.26**	91.23	Not sampled due to the presence of LNAPL																					
MW9	**Screened Interval 14-29 feet bgs, 2-Inch Diameter Casing**																										
MW9	11/13/18	147.18	21.17	0.00	126.01	ND<100	ND<1	ND<1	ND<1	ND<3	**440 x**	ND<250	**140**	ND<250	ND<0.4	ND	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND	----	----	----	----
	08/15/17	147.18	19.63	0.00	127.55	----	----	----	----	----	**1,500 x**	**490 x**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/06/17	147.18	17.93	0.00	129.25	**480**	ND<1	**2.2**	**1.8**	**3.4**	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND	----	----	----	----
	11/11-13/13	147.18	20.21	0.00	126.97	**180**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**400**	ND<71	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/20-22/13	147.18	18.19	0.00	128.99	**240**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**1,400**	ND<68	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/12-14/12	147.18	20.09	0.00	127.09	**190**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**2,700**	**150**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/07-08/12	147.18	18.88	0.00	128.30	**230**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**1,500**	ND<67	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/10-12/11	147.18	18.68	0.00	128.50	**160**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**2,200**	**260**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/17-20/11	147.18	18.65	0.00	128.53	**280**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**6,400**	**1,400**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/19-22/10	147.18	19.04	0.00	128.14	**130**	**1**	ND<0.5	ND<0.5	ND<0.5	**1,200**	**190**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/12-15/09	147.18	20.67	0.00	126.51	**83**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**960**	ND<66	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/13-16/09	147.18	24.60	0.00	122.58	**160**	**0.7**	ND<0.5	ND<0.5	ND<0.5	**1,100**	**69**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/10/08	147.18	21.29	0.00	125.89	**130**	**0.5**	ND<0.5	ND<0.5	ND<0.5	**2,000**	**97**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/04-05/07	147.18	23.15	0.00	124.03	ND<50.0	ND<0.5	ND<0.5	ND<0.5	ND<1.5	**2,200**	**280**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water						**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**160**	**0.1**	**20**	**0.01**	**5**	**5**	**5**	**NVE**	**Analyte Specific**	**15**	**15**	**5**	**Analyte Specific**
Applicable or Relevant and Appropriate Requirements (ARARs)[2]						**----**	**5**	**1,000**	**700**	**10,000**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**0.05**	**5**	**5**	**5**	**70**	**Analyte Specific**	**15**	**15**	**10**	**Analyte Specific**

Table 1, Page 2 of 6. Summary of Groundwater Analytical Laboratory Results for the Property
Roystone on Queen Anne
631 Queen Anne Avenue North, Seattle, Washington 98109
The Riley Group, Inc. Project No. 2017-015H

Sample Number	Sample Date	TOC Elevation (ft)	Depth to Water Below Well TOC (ft)	LNAPL Thickness (ft)	Groundwater Elevation (ft)	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	Naph.	cPAHs	MTBE	EDB	EDC	PCE	TCE	cis-1,2-DCE	Other VOCs[7]	Total Pb	Dissolved Pb	Dissolved As	Other Metals
							B	T	E	X	without silica gel		with silica gel														
MW9	08/09/06	147.18	22.80	0.00	124.38	450	66	1.9	0.8	47	2,700	ND<540	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/18-21/05	147.18	20.59	0.00	126.59	480	1.4	ND<1.0	5.7	3.1	14,000	ND<630	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/24-31/05	147.18	20.66	0.00	126.52	730	1.7	ND<1.0	2.7	ND<6.0	140,000	ND<5,300	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/28-11/01/04	147.18	21.22	0.00	125.96	300	1.4	0.5	1.9	ND<3.0	3,900	420	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	7/15-16/04	147.18	20.71	0.00	126.47	9,540	3.84	10.4	25.9	31.6	2,540	ND<500	----	----	----	----	----	----	----	----	----	----	----	2.54	----	----
	4/29-30/04	147.18	20.38	0.00	126.80	1,200	2	1.2	10	7.8	92,000	ND<5,000	----	----	----	----	----	----	----	----	----	----	----	4.8	----	----
	1/21-23/04	147.18	20.36	0.00	126.82	2,300	7.2	2.4	45	19	100,000	ND<5,100	----	----	----	----	----	----	----	----	----	----	----	5.5	----	----
	10/1-02/03	147.18	21.26	0.00	125.92	3,500	110	30	100	ND<100	33,000	ND<5,000	----	----	----	----	----	----	----	----	----	----	----	3.9	----	----
	4/23-24/03	147.18	20.04	0.00	127.14	6,760	388	15.9	277	105	3,680	ND<500	----	----	----	----	----	----	----	----	----	----	----	1.31	----	----
	10/17-18/02	147.18	20.88	0.00	126.30	6,380	493	13.0	230	107	43,600	671[4]	----	----	----	----	----	----	----	----	----	----	----	2.66	----	----
	06/14/00	147.18	----	----	----	4,740	786	26.0	274	156	6,070	ND<500	----	----	----	----	----	----	----	----	----	----	----	7.86	1.59	----
	12/15/99	147.18	----	----	----	4,460	831	22.4	274	138	8,510	ND<500	----	----	----	----	----	----	----	----	----	----	----	15	1.03	----
	11/1997	147.18	----	----	----	5,000	2,010	80	334	400	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	----	3.3	----	----
	07/1997	147.18	----	----	----	2,200 J	2,680	127	460	620 J	----	----	----	----	----	----	----	----	----	ND<200	ND<200	ND<200	----	8.6 j	----	----
	04/1997	147.18	----	----	----	9,100	2,980	173	413	674	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	----	6.8	----	----
	01/01/97	147.18	----	----	----	4,400	2,600	53	310	285	----	----	----	----	----	----	----	----	----	----	----	----	----	4.6 P	----	----
	10/01/95	147.18	----	----	----	3,400	3,520	70 J	ND<200	312 J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	03/26-28/91	114.65[6]	20.44	0.17	94.18	----	1,600	2,900	250	3,100	----	----	----	----	----	----	----	----	----	ND<250	ND<250	----	----	----	1.03	----	----
MW13	**Screened Interval 10-20 feet bgs, 2-Inch Diameter Casing**																										
MW13	11/13/18	147.88	----	----	Insufficient volume of water for sampling																						
	08/15/17	147.88	18.04	----	129.84	----	----	----	----	----	60 x	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/06/17	147.88	16.26	----	131.62	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND	----	----	----
	2002-2013	147.88	----	0.00	Not Sampled																						
RW4	**Screened Interval 17-32 feet bgs, 8-Inch Diameter Casing**																										
RW4 (Product Recovery Well)	10/18/06	110.82[6]	23.64	0.00	87.18	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	07/15-16/04	110.82[6]	18.20	0.22	92.84	Not sampled due to the presence of LNAPL																					
	01/21/03	110.82[6]	17.88	0.00	92.94	689	0.991	ND<0.500	2.37	7.03	2,830	ND<500	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	10/17-18/02	110.82[6]	19.29	0.00	91.53	3,160	59.8	2.50	40.4	15.6	8,930	939	----	----	----	----	----	----	----	----	----	----	----	1.23	----	----
	07/24/02	110.82[6]	18.30	0.00	92.52	990	62	1.3	32	7.0	15,000	ND<2,000	----	----	5.0	----	ND<2	----	ND<2	ND<1	ND<1	ND<1	----	----	3.3	6.1	----
	07/07/93	110.82[6]	21.65	0.00	89.17	14,000	6,500	2,800	370	2,000	----	----	----	----	----	----	----	----	----	----	----	----	----	45	----	----	----
DPE5	**Screened Interval 14-24 feet bgs, 4-Inch Diameter Casing**																										
DPE 5 (Dual Phase Extraction Well)	11/21/18	113.81[6]	17.28	0.00	96.53	ND<100	1.6	ND<1	ND<1	ND<3	1,300 x	420 x	99	ND<250	ND<1	----	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND	----	1.37	----	----
	04/06/17	113.81[6]	13.37	0.00	100.44	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND	----	----	----	----
	11/11-13/13	113.81[6]	16.68	0.00	97.14	5,400	44	20	690	290	150	ND<72	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/20-22/13	113.81[6]	16.65	0.00	97.17	5,700	41	22	620	550	120	ND<67	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/12-14/12	113.81[6]	15.35	0.00	98.47	580	5	2	56	46	260	ND<72	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/07-08/12	113.81[6]	14.08	0.00	99.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<29	ND<67	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/10-12/11	113.81[6]	16.16	0.00	97.66	520	18	4	30	63	1,900	270	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/17-20/11	113.81[6]	13.99	0.00	99.83	ND<50	ND<0.5	ND<0.5	2	1	540	230	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/19-22/10	113.81[6]	15.92	0.00	97.90	78	2	ND<0.5	ND<0.5	0.5	530	95	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/12-15/09	113.81[6]	18.60	0.00	95.22	490	22	2	19	10	25,000	ND<1,400	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/13-16/09	113.81[6]	14.63	0.00	99.19	110	2	ND<0.5	1	3	690	83	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/03/08	113.82[6]	22.45	0.00	91.37	460	77	7	4	17	12,000	ND<3,500	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/29-29/08[3]	113.82[6]	18.93	0.00	94.89	ND<250	32	4	3	22	11,000	ND<2,500	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/04-06/07	113.81[6]	23.72	0.00	90.09	180	0.6	0.5	0.6	4.3	4,000	ND<470	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17-19/07	113.81[6]	23.78	0.00	90.03	200	17	2.6	1.6	11	4,600	ND<470	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17/06	113.81[6]	----	----	----	19,000	1,100	1,400	160	2,900	4,800	ND<190	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water						800/1,000[1]	5	1,000	700	1,000	500	500	500	500	160	0.1	20	0.01	5	5	5	NVE	Analyte Specific	15	15	5	Analyte Specific
Applicable or Relevant and Appropriate Requirements (ARARs)[2]						----	5	1,000	700	10,000	----	----	----	----	----	----	----	0.05	5	5	5	70	Analyte Specific	15	15	10	Analyte Specific

Table 1, Page 3 of 6. Summary of Groundwater Analytical Laboratory Results for the Property
Roystone on Queen Anne
631 Queen Anne Avenue North, Seattle, Washington 98109
The Riley Group, Inc. Project No. 2017-015H

Sample Number	Sample Date	TOC Elevation (ft)	Depth to Water Below Well TOC (ft)	LNAPL Thickness (ft)	Groundwater Elevation (ft)	Gasoline TPH	BTEX				Diesel TPH without silica gel	Oil TPH without silica gel	Diesel TPH with silica gel	Oil TPH with silica gel	Naph.	cPAHs	MTBE	EDB	EDC	PCE	TCE	cis-1,2-DCE	Other VOCs[7]	Total Pb	Dissolved Pb	Dissolved As	Other Metals
							B	T	E	X																	
DPE 5	01/23/06	113.81[6]	16.75	**0.05**	96.61	Not sampled due to the presence of LNAPL																					
	11/28/05	----	----	----	----	**36,000**					**5,300**	ND<1,000	----	----	----	----	ND<0.5	----	ND<0.5	ND<0.8	ND<1	ND<0.8	----	----	----	----	----
DPE6	**Screened Interval 15.5-30.5 feet bgs, 4-Inch Diameter Casing**																										
DPE 6 (Dual Phase Extraction Well)	11/13/18	113.32[6]	20.93	0.00	92.39	ND<100	ND<1	**1.1**	ND<1	ND<3	**3,300 x**	**610 x**	**180**	ND<250	ND<1	----	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND	----	ND<2	----	----
	04/06/17	113.32[6]	17.75	0.00	95.57	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND	----	----	----	----
	11/11-13/13	114.14[6]	20.04	0.00	94.10	**140**	**7**	ND<0.5	ND<0.5	ND<0.5	**1,100**	ND<70	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/20-22/13	114.14[6]	18.62	0.00	95.52	**570**	**3**	**2**	**2**	**8**	**170**	ND<71	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/12-14/12	114.14[6]	19.90	0.00	94.24	**220**	**4**	ND<0.5	ND<0.5	**1**	**94**	ND<71	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/07-08/12	114.14[6]	18.80	0.00	95.43	**360**	**9**	**1**	**1**	**4**	**1,000**	ND<66	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/10-12/11	114.14[6]	18.44	0.00	95.70	**510**	**16**	**2**	**5**	**14**	**8,300**	**1,300**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/17-20/11	114.14[6]	18.61	0.00	95.53	**520**	**42**	**2**	**4**	**6**	**16,000**	**27,000**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/19-22/10	114.14[6]	19.02	0.00	95.12	**680**	**44**	**3**	**13**	**13**	**10,000**	**2,000**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/12-15/09	114.14[6]	20.51	0.00	93.63	**490**	**18**	**3**	**8**	**9**	**3,600**	ND<680	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/13-16/09	114.14[6]	20.60	0.00	93.54	**900**	**100**	**6**	**16**	**24**	**16,000**	**880**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/04/08	114.14[6]	21.30	0.00	92.84	**870**	**16**	**12**	**7**	**63**	**11,000**	ND<1,300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/28-29/08[3]	114.14[6]	22.81	0.00	91.33	**460**	**1**	**6**	**2**	**32**	**8,500**	ND<480	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/04-05/07	113.32[6]	28.51	0.00	84.81	**160**	ND<2.0	**0.6**	ND<2.0	**3.8**	**1,100**	ND<190	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17/07	113.32[6]	29.83	0.00	83.49	**5,400**	**27**	**39**	**35**	**350**	**110,000**	ND<9,300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17/06	113.32[6]	----	0.00	----	**38,000**	**3,000**	**5,400**	**690**	**4,900**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/28/05	----	----	----	----	**280**	----	----	----	----	**170**	ND<100	----	----	----	----	ND<0.5	----	ND<0.5	ND<0.8	ND<1	**8**	----	----	----	----	----
DPE7	**Screened Interval 11-29 feet bgs, 4-Inch Diameter Casing**																										
DPE 7 (Dual Phase Extraction Well)	11/13/18	113.15[6]	20.52	0.00	92.63	**700**	**3.3**	**8.1**	**2.3**	**30**	**4,100 x**	**850 x**	**430 x**	ND<250	**1.3**	ND	----	----	----	----	----	----	----	----	ND<2	----	----
	04/06/17	113.15[6]	17.28	0.00	95.87	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND	----	----	----	----
	11/03/08	113.15[6]	20.96	**0.01**	92.18	Not sampled due to the presence of LNAPL																					
	04/28-29/08	113.15[6]	22.26	0.00	90.87	ND<250	**7**	**2**	**2**	**6**	**6,300**	ND<980	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/04-05/07	113.15[6]	27.52	0.00	85.63	**760**	**44**	**1.7**	**28**	**15**	**120,000**	ND<9,900	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17/07	113.15[6]	27.00	0.00	86.15	**3,800**	**78**	**40**	**97**	**180**	**22,000**	ND<4,700	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17/06	113.15[6]	----	----	----	**29,000**	**4,500**	**1,800**	**470**	**4,200**	**8,600**	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/28/05	----	----	----	----	**17,000**	----	----	----	----	**6,200**	ND<1,000	----	----	----	----	ND<0.5	----	ND<0.5	ND<0.8	ND<1	ND<0.8	----	----	----	----	----
VP9	**Screened Interval 4.5-14.5 feet bgs, 2-Inch Diameter Casing**																										
VP9 (Soil Vapor Extraction Well)	11/13/18	145.22	9.54	0.00	135.68	ND<100	ND<1	ND<1	ND<1	ND<3	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/24-31/05	145.22	10.30	0.00	134.92	**100**	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/28-11/01/04	145.22	9.82	0.00	135.40	**610**	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<800	ND<1,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	7/15-16/04	145.22	11.15	0.00	134.07	**1,270**	**1.67**	**0.699**	**2.79**	**5.77**	**259**	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	4/29-30/04	145.22	9.58	0.00	135.64	**750**	**0.8**	ND<0.500	**13**	ND<1.5	**1,500**	ND<1,000	----	----	----	----	----	----	----	----	----	----	----	----	ND<0.99	----	----
	10/01-02/03	145.22	11.72	0.00	133.50	**1,600**	**5.3**	**1.4**	**2.3**	ND<10	**5,400**	**1,300**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	6/30-07/01/03	145.22	9.74	0.00	135.48	**681**	**1.22**	**0.735**	**5.07**	**3.28**	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	4/23-24/03	145.22	8.28	0.00	136.94	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	10/17-18/02	145.22	11.90	0.00	133.32	**1,910**	**11.3**	**2.62**	**8.86**	**14.7**	**13,200**	**786[4]**	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	06/14/00	145.22	----	----	----	**474**	**4.97**	ND<1.30	**55.6**	**4.48**	**1,420**	ND<1,130	----	----	----	----	----	----	----	----	----	----	----	**15.2**	ND<1.00	----	----
	12/15/99	145.22	----	----	----	**118**	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	**5.72**	ND<1.00	----	----
Off-Property Wells Situated in Close Proximity to Property Boundary																											
SS1-W1	**Screened Interval 10-20 feet bgs, 1.5-Inch Diameter Casing**																										
SS1-W1	11/13/18	148.83	11.92	----	136.91	ND<100	ND<1	ND<1	ND<1	ND<3	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/06/17	148.83	10.75	----	138.08	ND<100	ND<1.0	ND<2.0	ND<1.0	ND<3.0	ND<200	ND<400	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water						**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**160**	**0.1**	**20**	**0.01**	**5**	**5**	**5**	**NVE**	**Analyte Specific**	**15**	**15**	**5**	**Analyte Specific**
Applicable or Relevant and Appropriate Requirements (ARARs)[2]						**----**	**5**	**1,000**	**700**	**10,000**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**0.05**	**5**	**5**	**5**	**70**	**Analyte Specific**	**15**	**15**	**10**	**Analyte Specific**

Table 1, Page 4 of 6. Summary of Groundwater Analytical Laboratory Results for the Property
Roystone on Queen Anne
631 Queen Anne Avenue North, Seattle, Washington 98109
The Riley Group, Inc. Project No. 2017-015H

Sample Number	Sample Date	TOC Elevation (ft)	Depth to Water Below Well TOC (ft)	LNAPL Thickness (ft)	Groundwater Elevation (ft)	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	Naph.	cPAHs	MTBE	EDB	EDC	PCE	TCE	cis-1,2-DCE	Other VOCs[7]	Total Pb	Dissolved Pb	Dissolved As	Other Metals
							B	T	E	X	without silica gel		with silica gel														
SS1-W2	**Screened Interval 12-22 feet bgs, 1.5-Inch Diameter Casing**																										
SS1-W2	11/13/18	146.93	14.54	----	132.39	ND<100	ND<1	ND<1	ND<1	ND<3	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/06/17	146.93	13.65	----	133.28	ND<100	ND<1.0	ND<2.0	ND<1.0	ND<3.0	ND<200	ND<400	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW10	**Screened Interval 10-30 feet bgs, 2-Inch Diameter Casing**																										
MW10	11/13/18	148.16	13.33	0.00	134.83	ND<100	ND<1	ND<1	ND<1	ND<3	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/06/17	148.16	11.43	0.00	136.73	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND	----	----	----	----
	11/11-13/13	148.16	12.54	0.00	135.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<31	ND<73	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/20-22/13	148.16	12.35	0.00	135.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<29	ND<68	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/12-14/12	148.16	12.28	0.00	135.88	**180**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<30	**230**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/07-08/12	148.16	11.92	0.00	136.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<30	ND<70	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/10-12/11	148.16	12.02	0.00	136.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<30	ND<69	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/17-20/11	148.16	10.62	0.00	137.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<59[19]	**250[5]**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/19-22/10	148.16	11.93	0.00	136.23	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<31	ND<73	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/12-15/09	148.16	12.23	0.00	135.93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<29	ND<67	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/13-16/09	148.16	12.11	0.00	136.05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<29	ND<67	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/10/08	148.16	12.66	0.00	135.50	ND<50	**0.7**	ND<0.5	ND<0.5	ND<0.5	ND<30	ND<69	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/28-05/01/08	148.16	12.71[5]	0.00	135.45	ND<50	**0.8**	ND<0.5	ND<0.5	ND<0.5	ND<77	ND<97	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/04-05/07	148.16	14.33	0.00	133.83	**150**	**2.0**	ND<2.0	**0.9**	ND<5.0	ND<78	ND<98	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17-19/07	148.16	13.05	0.00	135.11	**100**	**1.4**	ND<0.5	ND<0.5	ND<1.5	ND<75	ND<94	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/24-31/05	148.16	12.36	0.00	135.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/21-11/01/04	148.16	13.31	0.00	134.85	**210**	**4.1**	ND<0.5	**1.2**	**2.1**	ND<82	ND<00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	07/15-16/04	148.16	13.44	0.00	134.72	**362**	**2.75**	ND<0.500	**0.549**	**3.45**	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	04/29-30/04	148.16	13.23	0.00	134.93	ND<50	1.5	ND<0.5	ND<0.5	ND<1.5	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	ND<0.99	----	----
	01/21-23/04	148.16	11.99	0.00	136.17	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.2	----	----
	10/01-02/03	148.16	13.68	0.00	134.48	**190**	**2.6**	ND<0.5	**0.5**	ND<3.0	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.2	----	----
	06/30-07/01/03	148.16	12.91	0.00	135.25	**255**	**2.01**	ND<0.500	**0.535**	**2.53**	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	04/23-24/03	148.16	11.76	0.00	136.40	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	01/21/03	148.16	12.46	0.00	135.70	**416**	**3.44**	**0.55**	**0.519**	**3.24**	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	10/17-18/02	148.16	13.59	0.00	134.57	**490**	**3.42**	ND<0.500	**1.34**	**5.00**	**667**	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	7/24/02[3]	148.16	13.14	0.00	135.02	**240**	**2.5**	ND<0.500	ND<1.0	ND<1.5	**320**	**600**	----	----	ND<2	----	ND<2	----	ND<2	ND<1	ND<1	**15**	----	----	**1.3**	**4.1**	----
	06/14/00	148.16	----	----	----	**99.2**	**1.56**	ND	ND	ND	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	ND	ND	----	----
	12/15/99	148.16	----	----	----	**618**	**7.02**	ND<0.910	ND<0.850	ND<4.22	**353**	ND<500	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1.00	----	----
	11/1997	148.16	----	----	----	**1,000**	**4.2**	**2**	**4.8**	**2.2 J**	----	----	----	----	----	----	----	----	----	----	----	----	----	**4.9**	----	----	----
	07/1997	148.16	----	----	----	**1,100**	**10**	**2.1**	**2.4**	**4.34 J**	----	----	----	----	----	----	----	----	----	----	----	----	----	**1.2 j**	----	----	----
	04/1997	148.16	----	----	----	**420**	**5.1**	**1**	ND<1	**2.0 J**	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1	----	----	----
	01/1997	148.16	----	----	----	**180**	**1.5**	ND<1	ND<1	ND<2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/1995	148.16	----	----	----	**780**	**1.8**	**2.9**	**0.82 J**	**5.6**	----	----	----	----	----	----	----	----	----	ND<1	**0.7**	ND<1	----	ND<1	----	----	----
	07/07/93	115.75[6]	13.81	0.00	101.94	**380**	**13**	ND<5.0	**11**	**24**	----	----	----	----	----	----	----	----	----	----	----	----	----	**8**	----	----	----
	03/26-28/91[3]	115.75[6]	13.14	0.00	102.61	----	ND<5	ND<5	ND<5	ND<5	----	----	----	----	----	----	----	ND<0.01	ND<5	ND<5.0	ND<5.0	----	----	----	**12 j**	**21**	BSL
MW24	**Screened Interval 4.2-14.2 feet bgs, 0.75-Inch Diameter Casing**																										
MW24	01/24-31/05	107.95[6]	5.58	0.00	102.37	ND<50	ND<0.5	**0.6**	ND<0.5	**1.6**	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW24	10/26-27/04	107.95[6]	----	----	----	**500**	----	----	----	----	ND<800	ND<1,000	----	----	----	----	ND<0.5	ND<0.5	ND<0.5	ND<0.8	ND<1	ND<0.8	----	----	----	----	----
RW2	**Screened Interval Unknown, 8-Inch Diameter Casing**																										
RW2 (Product Recovery Well)	11/11-13/13	106.63[6]	14.36	0.00	92.27	ND<50	**2**	ND<0.5	ND<0.5	ND<0.5	ND<31	ND<73	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	5/20-22/13	106.63[6]	12.57	0.00	94.06	ND<50	**1**	ND<0.5	ND<0.5	ND<0.5	ND<30	ND<69	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/12-14/12	106.63[6]	13.50	0.00	93.13	**87**	**5**	ND<0.5	ND<0.5	**0.9**	ND<29	ND<67	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/07-08/12	106.63[6]	11.40	0.00	95.23	ND<50	ND<0.5	ND<0.5	**2**	**3**	ND<30	ND<69	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	05/10-12/11	106.63[6]	11.96	0.00	94.67	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**230**	**91**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/17-20/11	106.63[6]	9.70	0.00	96.93	**150**	ND<0.5	ND<0.5	**8**	**16**	**270**	**190**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water						**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**160**	**0.1**	**20**	**0.01**	**5**	**5**	**5**	**NVE**	**Analyte Specific**	**15**	**15**	**5**	**Analyte Specific**
Applicable or Relevant and Appropriate Requirements (ARARs)[2]						**----**	**5**	**1,000**	**700**	**10,000**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**0.05**	**5**	**5**	**5**	**70**	**Analyte Specific**	**15**	**15**	**10**	**Analyte Specific**

Table 1, Page 5 of 6. Summary of Groundwater Analytical Laboratory Results for the Property
Roystone on Queen Anne
631 Queen Anne Avenue North, Seattle, Washington 98109
The Riley Group, Inc. Project No. 2017-015H

Sample Number	Sample Date	TOC Elevation (ft)	Depth to Water Below Well TOC (ft)	LNAPL Thickness (ft)	Groundwater Elevation (ft)	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	Naph.	cPAHs	MTBE	EDB	EDC	PCE	TCE	cis-1,2-DCE	Other VOCs[7]	Total Pb	Dissolved Pb	Dissolved As	Other Metals
							B	T	E	X	without silica gel		with silica gel														
RW2 (Product Recovery Well)	04/19-22/10	106.63[6]	12.56	0.00	94.07	160	9	0.7	ND<0.5	ND<0.5	430	240	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/12-15/09	106.63[6]	14.75	0.00	91.88	1,100	35	4	7	11	4,300	ND<680	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	4/13-16/09	106.63[6]	13.80	0.00	92.83	340	21	0.9	1	1	840	ND<65	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	11/04/08	106.63[6]	15.66	0.00	90.97	890	82	9	14	6	1,000	ND<66	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/28-29/08	106.63[6]	15.84	0.00	90.79	190	12	1	0.9	2	890	ND<95	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	12/04-06/07	106.63[6]	15.21	0.00	91.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	400	ND<100	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/17-18/07	106.63[6]	17.12	0.00	89.51	650	54	12	10	35	15,000	ND<1,900	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	04/18-21/05	106.63[6]	9.18	0.00	97.45	130	0.8	ND<0.5	2.3	6.1	260	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	01/24-31/05	106.63[6]	11.57	0.00	95.06	94	ND<0.5	ND<0.5	ND<2.0	2.5	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	10/28-11/01/04	106.63[6]	14.68	0.00	91.95	26,000	410	63	470	950	280,000	ND<40,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	07/15-16/04	106.63[6]	14.41	0.00	92.22	634	25.7	2.39	6.18	3.55	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	04/29-30/04	106.63[6]	13.31	0.00	93.32	81	11	0.9	2.0	1.9	270	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	ND<0.99	----	----
	01/21-23/04	106.63[6]	10.22	0.00	96.41	53	1.2	0.7	1.3	8.9	ND<250	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.2	----	----
	10/01-02/03	106.63[6]	15.05	0.00	91.58	2,300	75	7.3	29	33	1,400	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	4.9	----	----
	06/30-07/01/03	106.63[6]	13.72	0.00	92.91	2,380	53.5	8.72	39.8	43.2	505	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	1.43	----	----
	04/23-24/03	106.63[6]	10.30	0.00	96.33	55.7	ND<0.500	ND<0.500	0.642	2.64	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	01/21/03	106.63[6]	10.61	0.00	96.02	126	33.5	0.859	1.28	4.11	ND<250	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	----	----
	10/17-18/02	106.63[6]	14.44	0.00	92.19	1,380	90.5	8.05	29.2	31.5	988	ND<500	----	----	----	----	----	----	----	----	----	----	----	----	2.23	----	----
	11/1997	104.54[6]	----	----	----	4,400	3,140	1,200	338	2,265	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	----	----	15.4	----	----
	07/1997	104.54[6]	----	----	----	24,000	4,230	2,490	398	2,732	----	----	----	----	----	----	----	----	----	ND<25	ND<25	ND<50	----	----	47.2	----	----
	04/1997	104.54[6]	----	----	----	11,000	189	243	99	743	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	----	----	18.2	----	----
	01/1997	104.54[6]	----	----	----	390	31	14	6	49	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	----	----	11	----	----
	3/26-28/91	104.54[6]	10.21	0.08	94.39	----	19,000	46,000	2,500	120,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	09/1990	104.54[6]	12.72	0.04	91.85	Not sampled due to the presence of LNAPL																					
Groundwater Grab Samples																											
P1-W	05/22/17	----	13.00	----	----	7,100	ND<5	12	5.4	27	110,000ve	3,800 x	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P2-W	05/22/17	----	14.00	----	----	ND<100	ND<1	ND<1	ND<1	ND<3	ND<60	ND<300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P3-W	05/22/17	----	13.00	----	----	1,200	ND<5	9.7	8.2	19	1,400	ND<300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Off Property Groundwater Grab Samples																											
SS1-P1	12/02/17	----	----	----	----	ND<100	ND<1.0	ND<2.0	ND<1.0	ND<2.0	ND<200	ND<400	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SS1-P2	12/02/17	----	----	----	----	ND<100	ND<1.0	ND<2.0	ND<1.0	ND<2.0	ND<200	ND<400	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water						**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**160**	**0.1**	**20**	**0.01**	**5**	**5**	**5**	**NVE**	**Analyte Specific**	**15**	**15**	**5**	**Analyte Specific**
Applicable or Relevant and Appropriate Requirements (ARARs)[2]						**----**	**5**	**1,000**	**700**	**10,000**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**0.05**	**5**	**5**	**5**	**70**	**Analyte Specific**	**15**	**15**	**10**	**Analyte Specific**

Notes:
Samples collected in 2017 by RGI field staff using a peristaltic pump under low-flow conditions. Groundwater samples collected prior to 2017 were obtained by others.
Unless otherwise noted, all analytical results are given in micrograms per liter (ug/L), equivalent to parts per billion (ppb).
TOC = Top of casing
Gasoline-range TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Gx.
Diesel- and Oil-range TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx.
BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B.
Naph. (naphthalene), MTBE (methyl tert-butyl ethere), EDB (1,2-dibromoethane), EDC (1,2-dichloroethane), PCE (tetrachloroethene), TCE (trichloroethene), cis-1,2-DCE (cis-1,2-dichloroethene), and other VOCs (volatile organic compounds) determined using EPA Test Method 8260.
LNAPL = Light non-aqueous phase liquid.
Pb (lead), As (arsenic) and other metals determined using EPA 6000/7000 Series Methods.
ve = The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
j = The analyte was positively identified. The reported value is an estimate.
P = The analyte was detected above the instrument detection limit, but below the established minimum quantitation limit.
ND = Not detected above the noted analytical detection limit.

Table 1, Page 6 of 6. Summary of Groundwater Analytical Laboratory Results for the Property
Roystone on Queen Anne
631 Queen Anne Avenue North, Seattle, Washington 98109
The Riley Group, Inc. Project No. 2017-015H

Notes continued:
NVE = No value established
---- = Not analyzed or not applicable.
Silica gel = Samle extract passed through a silica gel column prior to analysis. The silica gel column removes naturally occuring biogenic material that can interfere with TPH results when present.
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). Federal and State ARARs obtained from Ecology's Cleanup Level and Risk Calculation (CLARC) database.
ARAR = Applicable or Relevant and Appropriate Requirement. ARARs for the Property are the Federal and State Primary Maximum Contaminant Levels (MCLs) as established under the Environmental Protection Agency (EPA) National Primary Drinking Water Regulations.
[1] The higher cleanup level is applicable if no benzene is detected in groundwater.
[2] No MTCA Method A Cleanup Level has been established. Therefore, the Federal and State ARAR is referenced.
[3] Indicates a duplicate sample was collected. The highest concentration for each analyte was reported.
[4] Laboratory report indicates heavy range organics are due to hydrocarbons primarily in the diesel range.
[5] The reporting limits were raised due to interference in the sample matrix.
[6] Top of casing elevation and groundwater elevation based on arbitrary datum. Not actual elevations.
[7] Only VOCs not factored into the MTCA Method A TPH cleanup levels are reported.
[8] Top of casing elevations for wells MW6, MW9, MW13, VP9, SSI-W1, SSI-W2, and MW10 were surveyed using actual elevation data in December 2018. Reports prepared prior to this time present top of casing elevations based on arbitrary datum.
Bold results indicated concentrations above laboratory detection limits or LNAPL detected in well.
Bold and yellow highlighted results indicate concentrations (if any) that exceed the applicable groundwater screening level.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
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November 28, 2018

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

Dear Mr Russell:

Included are the results from the testing of material submitted on November 15, 2018 from the Roystone 2017-015H, F&BI 811268 project. There are 22 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Jerry Sawetz
TRG1128R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 15, 2018 by Friedman & Bruya, Inc. from the The Riley Group Roystone 2017-015H, F&BI 811268 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
811268 -01	DPE5
811268 -02	DPE6
811268 -03	DPE7
811268 -04	SS1-W1
811268 -05	SS1-W2
811268 -06	VP9
811268 -07	MW6
811268 -08	MW9
811268 -09	MW10

All quality control requirements were acceptable.

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268
Date Extracted: 11/16/18
Date Analyzed: 11/16/18

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
DPE6 811268-02	<1	1.1	<1	<3	<100	85
DPE7 811268-03	3.3	8.1	2.3	30	700	88
SS1-W1 811268-04	<1	<1	<1	<3	<100	85
SS1-W2 811268-05	<1	<1	<1	<3	<100	85
VP9 811268-06	<1	<1	<1	<3	<100	85
MW6 811268-07	<1	<1	<1	<3	110	84
MW9 811268-08	<1	<1	<1	<3	<100	85
MW10 811268-09	<1	<1	<1	<3	<100	85
Method Blank 08-2516 MB	<1	<1	<1	<3	<100	86

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268
Date Extracted: 11/16/18
Date Analyzed: 11/16/18

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)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
DPE6 811268-02	3,300 x	610 x	98
DPE7 811268-03	4,100 x	850 x	107
SS1-W1 811268-04	<50	<250	102
SS1-W2 811268-05	<50	<250	96
VP9 811268-06	<50	<250	108
MW6 811268-07	1,000 x	<250	110
MW9 811268-08	440 x	<250	105
MW10 811268-09	<50	<250	98
Method Blank 08-2621 MB	<50	<250	99

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	DPE6	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/21/18	Lab ID:	811268-02 x2
Date Analyzed:	11/21/18	Data File:	811268-02 x2.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<2

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	DPE7	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/21/18	Lab ID:	811268-03 x2
Date Analyzed:	11/21/18	Data File:	811268-03 x2.063
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<2

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/21/18	Lab ID:	I8-803 mb
Date Analyzed:	11/21/18	Data File:	I8-803 mb.046
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	DPE7	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811269
Date Extracted:	11/20/18	Lab ID:	811269-01 1/4
Date Analyzed:	11/20/18	Data File:	112007.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	107	31	160
Benzo(a)anthracene-d12	114	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	1.3
2-Methylnaphthalene	<0.8
1-Methylnaphthalene	<0.8
Benz(a)anthracene	<0.08
Chrysene	<0.08
Benzo(a)pyrene	<0.08
Benzo(b)fluoranthene	<0.08
Benzo(k)fluoranthene	<0.08
Indeno(1,2,3-cd)pyrene	<0.08
Dibenz(a,h)anthracene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW6	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/16/18	Lab ID:	811268-07 1/4
Date Analyzed:	11/16/18	Data File:	111614.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	103	31	160
Benzo(a)anthracene-d12	93	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.8
2-Methylnaphthalene	<0.8
1-Methylnaphthalene	<0.8
Benz(a)anthracene	<0.08
Chrysene	<0.08
Benzo(a)pyrene	<0.08
Benzo(b)fluoranthene	<0.08
Benzo(k)fluoranthene	<0.08
Indeno(1,2,3-cd)pyrene	<0.08
Dibenz(a,h)anthracene	<0.08

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	MW9	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/16/18	Lab ID:	811268-08 1/2
Date Analyzed:	11/16/18	Data File:	111615.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	99	31	160
Benzo(a)anthracene-d12	91	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Benz(a)anthracene	<0.04
Chrysene	<0.04
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/16/18	Lab ID:	08-2620 mb
Date Analyzed:	11/16/18	Data File:	111606.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	106	31	160
Benzo(a)anthracene-d12	105	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	Roystone 2017-015H, F&BI 811269
Date Extracted:	11/20/18	Lab ID:	08-2645 mb
Date Analyzed:	11/20/18	Data File:	112006.D
Matrix:	Water	Instrument:	GCMS6
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	106	31	160
Benzo(a)anthracene-d12	113	25	165

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	DPE6	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/15/18	Lab ID:	811268-02
Date Analyzed:	11/15/18	Data File:	111535.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	96	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	<50	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
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		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW6	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/15/18	Lab ID:	811268-07
Date Analyzed:	11/15/18	Data File:	111536.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	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	<50	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	1.6
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	0.89	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
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		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW9	Client:	The Riley Group
Date Received:	11/15/18	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/15/18	Lab ID:	811268-08
Date Analyzed:	11/15/18	Data File:	111537.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	99	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	<50	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
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		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	Roystone 2017-015H, F&BI 811268
Date Extracted:	11/15/18	Lab ID:	08-2575 mb
Date Analyzed:	11/15/18	Data File:	111511.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	105	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	<50	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
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		

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268

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

Laboratory Code: 811265-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	105	65-118
Toluene	ug/L (ppb)	50	103	72-122
Ethylbenzene	ug/L (ppb)	50	107	73-126
Xylenes	ug/L (ppb)	150	97	74-118
Gasoline	ug/L (ppb)	1,000	97	69-134

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL 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	mg/kg (ppm)	5,000	103	95	79-144	8

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 811238-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	95	96	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	102	80-120

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR PAHS BY EPA METHOD 8270D SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	91	91	67-116	0
2-Methylnaphthalene	ug/L (ppb)	1	96	95	63-122	1
1-Methylnaphthalene	ug/L (ppb)	1	94	93	65-122	1
Benz(a)anthracene	ug/L (ppb)	1	94	95	60-118	1
Chrysene	ug/L (ppb)	1	96	99	66-125	3
Benzo(b)fluoranthene	ug/L (ppb)	1	99	102	55-135	3
Benzo(k)fluoranthene	ug/L (ppb)	1	99	96	62-125	3
Benzo(a)pyrene	ug/L (ppb)	1	95	97	58-127	2
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	98	102	36-142	4
Dibenz(a,h)anthracene	ug/L (ppb)	1	90	96	37-133	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	1	93	93	67-116	0
2-Methylnaphthalene	ug/L (ppb)	1	97	97	63-122	0
1-Methylnaphthalene	ug/L (ppb)	1	96	95	65-122	1
Benz(a)anthracene	ug/L (ppb)	1	94	94	60-118	0
Chrysene	ug/L (ppb)	1	94	96	66-125	2
Benzo(b)fluoranthene	ug/L (ppb)	1	105	102	55-135	3
Benzo(k)fluoranthene	ug/L (ppb)	1	103	98	62-125	5
Benzo(a)pyrene	ug/L (ppb)	1	96	96	58-127	0
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	1	83	93	36-142	11
Dibenz(a,h)anthracene	ug/L (ppb)	1	78	81	37-133	4

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268

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

Laboratory Code: 811234-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	107	10-172
Chloromethane	ug/L (ppb)	50	<10	103	25-166
Vinyl chloride	ug/L (ppb)	50	17	107 b	36-166
Bromomethane	ug/L (ppb)	50	<1	117	47-169
Chloroethane	ug/L (ppb)	50	<1	118	46-160
Trichlorofluoromethane	ug/L (ppb)	50	<1	112	44-165
Acetone	ug/L (ppb)	250	<50	129	10-182
1,1-Dichloroethene	ug/L (ppb)	50	<1	124	60-136
Hexane	ug/L (ppb)	50	<1	89	52-150
Methylene chloride	ug/L (ppb)	50	<5	108	67-132
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	107	74-127
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	114	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	101	70-128
2,2-Dichloropropane	ug/L (ppb)	50	<1	105	36-154
cis-1,2-Dichloroethene	ug/L (ppb)	50	8.8	101	71-127
Chloroform	ug/L (ppb)	50	<1	100	65-132
2-Butanone (MEK)	ug/L (ppb)	250	<10	103	10-129
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	98	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	107	60-146
1,1-Dichloropropene	ug/L (ppb)	50	<1	98	69-133
Carbon tetrachloride	ug/L (ppb)	50	<1	107	56-152
Benzene	ug/L (ppb)	50	<0.35	97	76-125
Trichloroethene	ug/L (ppb)	50	<1	100	66-135
1,2-Dichloropropane	ug/L (ppb)	50	<1	101	78-125
Bromodichloromethane	ug/L (ppb)	50	<1	108	61-150
Dibromomethane	ug/L (ppb)	50	<1	102	66-141
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	104	10-185
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	104	72-132
Toluene	ug/L (ppb)	50	<1	95	76-122
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	103	76-130
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	103	68-131
2-Hexanone	ug/L (ppb)	250	<10	103	10-185
1,3-Dichloropropane	ug/L (ppb)	50	<1	100	71-128
Tetrachloroethene	ug/L (ppb)	50	<1	100	10-226
Dibromochloromethane	ug/L (ppb)	50	<1	109	70-139
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	100	69-134
Chlorobenzene	ug/L (ppb)	50	<1	96	77-122
Ethylbenzene	ug/L (ppb)	50	<1	97	69-135
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	110	73-137
m,p-Xylene	ug/L (ppb)	100	<2	98	69-135
o-Xylene	ug/L (ppb)	50	<1	97	60-140
Styrene	ug/L (ppb)	50	<1	103	71-133
Isopropylbenzene	ug/L (ppb)	50	<1	104	65-142
Bromoform	ug/L (ppb)	50	<1	117	65-142
n-Propylbenzene	ug/L (ppb)	50	<1	99	58-144
Bromobenzene	ug/L (ppb)	50	<1	99	75-124
1,3,5-Trimethylbenzene	ug/L (ppb)	50	<1	98	66-137
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	107	51-154
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	103	53-150
2-Chlorotoluene	ug/L (ppb)	50	<1	98	66-127
4-Chlorotoluene	ug/L (ppb)	50	<1	98	65-130
tert-Butylbenzene	ug/L (ppb)	50	<1	98	65-137
1,2,4-Trimethylbenzene	ug/L (ppb)	50	<1	97	59-146
sec-Butylbenzene	ug/L (ppb)	50	<1	97	64-140
p-Isopropyltoluene	ug/L (ppb)	50	<1	96	65-141
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	98	72-123
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	95	69-126
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	98	69-128
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	106	32-164
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	100	66-136
Hexachlorobutadiene	ug/L (ppb)	50	<1	94	60-143
Naphthalene	ug/L (ppb)	50	<1	104	44-164
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	102	69-148

Date of Report: 11/28/18
Date Received: 11/15/18
Project: Roystone 2017-015H, F&BI 811268

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	100	95	25-158	5
Chloromethane	ug/L (ppb)	50	99	106	45-156	7
Vinyl chloride	ug/L (ppb)	50	117	112	50-154	4
Bromomethane	ug/L (ppb)	50	106	94	55-143	12
Chloroethane	ug/L (ppb)	50	104	92	58-146	12
Trichlorofluoromethane	ug/L (ppb)	250	116	100	50-150	15
Acetone	ug/L (ppb)	250	117	114	53-131	3
1,1-Dichloroethene	ug/L (ppb)	50	120	121	67-136	1
Hexane	ug/L (ppb)	50	95	93	57-137	2
Methylene chloride	ug/L (ppb)	50	99	98	39-148	1
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	99	98	64-147	1
trans-1,2-Dichloroethene	ug/L (ppb)	50	109	106	68-128	3
1,1-Dichloroethane	ug/L (ppb)	50	106	103	79-121	3
2,2-Dichloropropane	ug/L (ppb)	50	116	110	55-143	5
cis-1,2-Dichloroethene	ug/L (ppb)	50	106	104	80-123	2
Chloroform	ug/L (ppb)	50	104	102	80-121	2
2-Butanone (MEK)	ug/L (ppb)	250	109	109	57-149	0
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	102	100	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	110	107	83-130	3
1,1-Dichloropropene	ug/L (ppb)	50	103	101	77-129	2
Carbon tetrachloride	ug/L (ppb)	50	111	108	75-158	3
Benzene	ug/L (ppb)	50	99	98	69-134	1
Trichloroethene	ug/L (ppb)	50	103	101	80-120	2
1,2-Dichloropropane	ug/L (ppb)	50	105	104	77-123	1
Bromodichloromethane	ug/L (ppb)	50	112	110	81-133	2
Dibromomethane	ug/L (ppb)	50	104	103	82-125	1
4-Methyl-2-pentanone	ug/L (ppb)	250	106	105	65-138	1
cis-1,3-Dichloropropene	ug/L (ppb)	50	109	107	82-132	2
Toluene	ug/L (ppb)	50	98	97	72-122	1
trans-1,3-Dichloropropene	ug/L (ppb)	50	109	107	80-136	2
1,1,2-Trichloroethane	ug/L (ppb)	50	107	107	75-124	0
2-Hexanone	ug/L (ppb)	250	107	106	60-136	1
1,3-Dichloropropane	ug/L (ppb)	50	103	102	76-126	1
Tetrachloroethene	ug/L (ppb)	50	104	102	76-121	2
Dibromochloromethane	ug/L (ppb)	50	115	112	84-133	3
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	104	103	82-125	1
Chlorobenzene	ug/L (ppb)	50	98	96	83-114	2
Ethylbenzene	ug/L (ppb)	50	99	98	77-124	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	114	111	84-127	3
m,p-Xylene	ug/L (ppb)	100	99	98	83-125	1
o-Xylene	ug/L (ppb)	50	96	94	81-121	2
Styrene	ug/L (ppb)	50	103	101	84-119	2
Isopropylbenzene	ug/L (ppb)	50	100	99	85-117	1
Bromoform	ug/L (ppb)	50	122	118	74-136	3
n-Propylbenzene	ug/L (ppb)	50	104	101	74-126	3
Bromobenzene	ug/L (ppb)	50	103	100	80-121	3
1,3,5-Trimethylbenzene	ug/L (ppb)	50	103	100	78-123	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	112	109	66-126	3
1,2,3-Trichloropropane	ug/L (ppb)	50	109	106	67-124	3
2-Chlorotoluene	ug/L (ppb)	50	102	100	77-127	2
4-Chlorotoluene	ug/L (ppb)	50	104	100	78-128	4
tert-Butylbenzene	ug/L (ppb)	50	101	98	80-123	3
1,2,4-Trimethylbenzene	ug/L (ppb)	50	102	99	79-122	3
sec-Butylbenzene	ug/L (ppb)	50	101	99	80-125	2
p-Isopropyltoluene	ug/L (ppb)	50	101	98	81-123	3
1,3-Dichlorobenzene	ug/L (ppb)	50	102	99	85-116	3
1,4-Dichlorobenzene	ug/L (ppb)	50	99	96	84-121	3
1,2-Dichlorobenzene	ug/L (ppb)	50	101	98	85-116	3
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	116	110	57-141	5
1,2,4-Trichlorobenzene	ug/L (ppb)	50	103	99	72-130	4
Hexachlorobutadiene	ug/L (ppb)	50	100	98	53-141	2
Naphthalene	ug/L (ppb)	50	108	104	64-133	4
1,2,3-Trichlorobenzene	ug/L (ppb)	50	104	100	65-136	4

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.

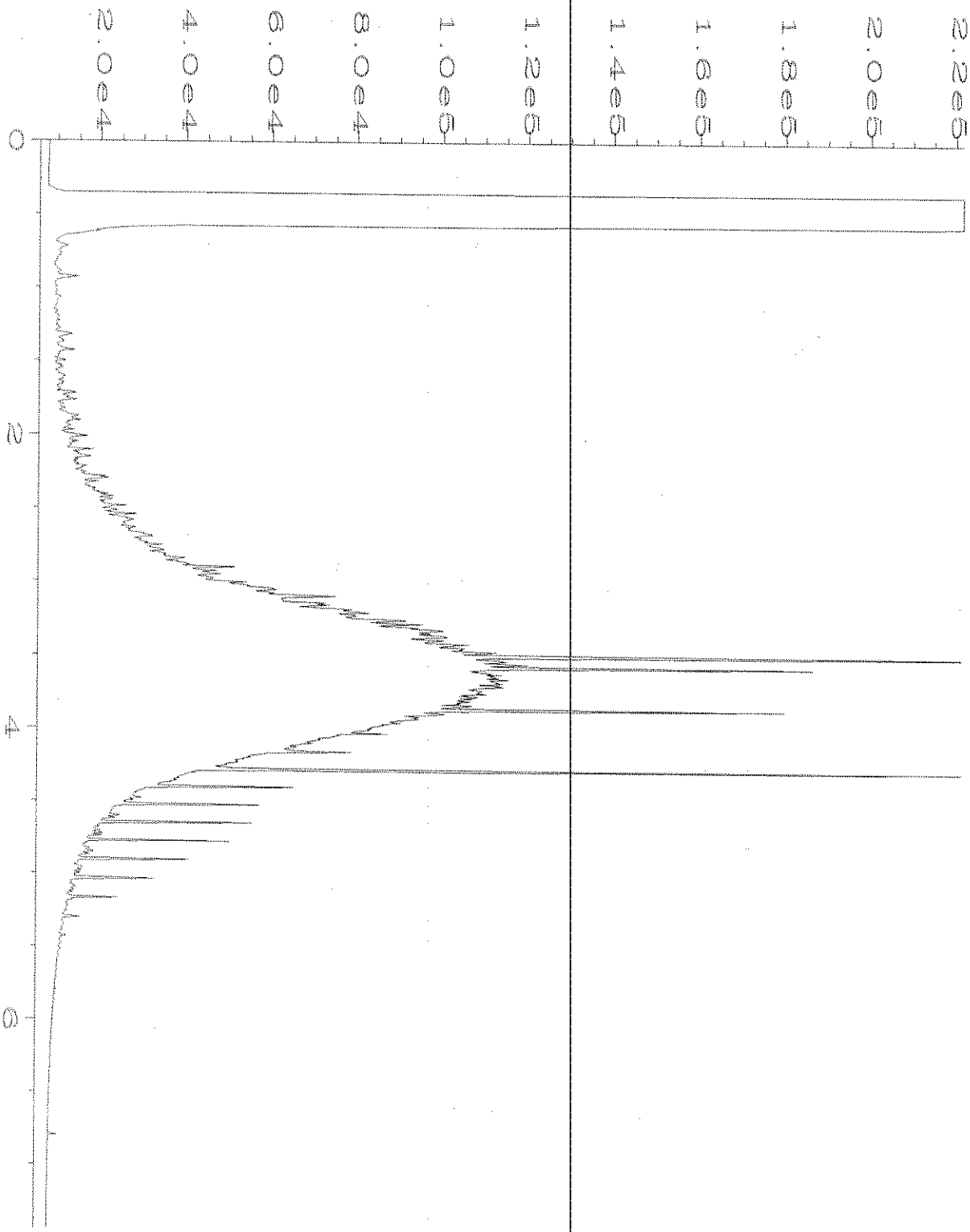
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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.

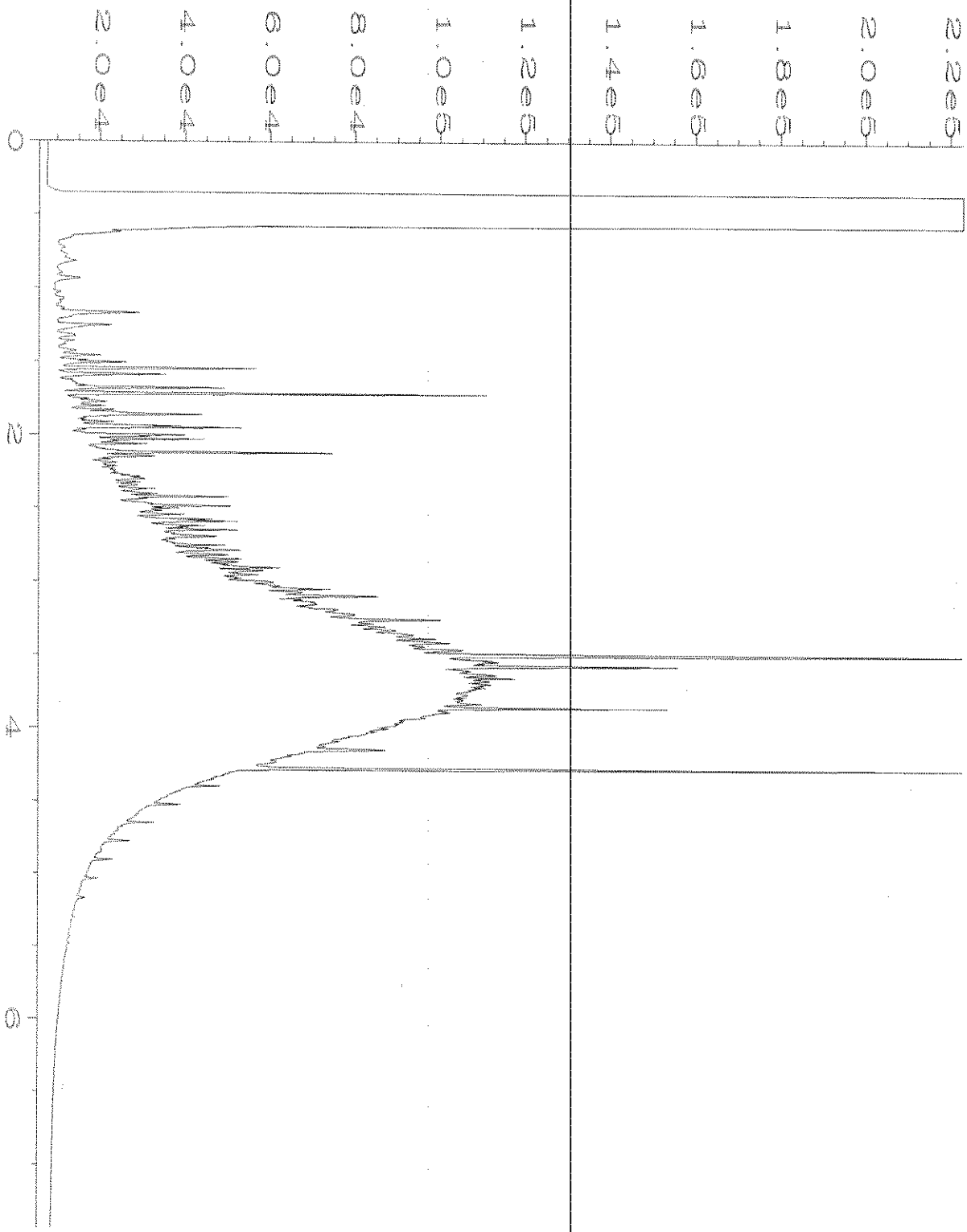
vo - The value reported fell outside the control limits established for this analyte.

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

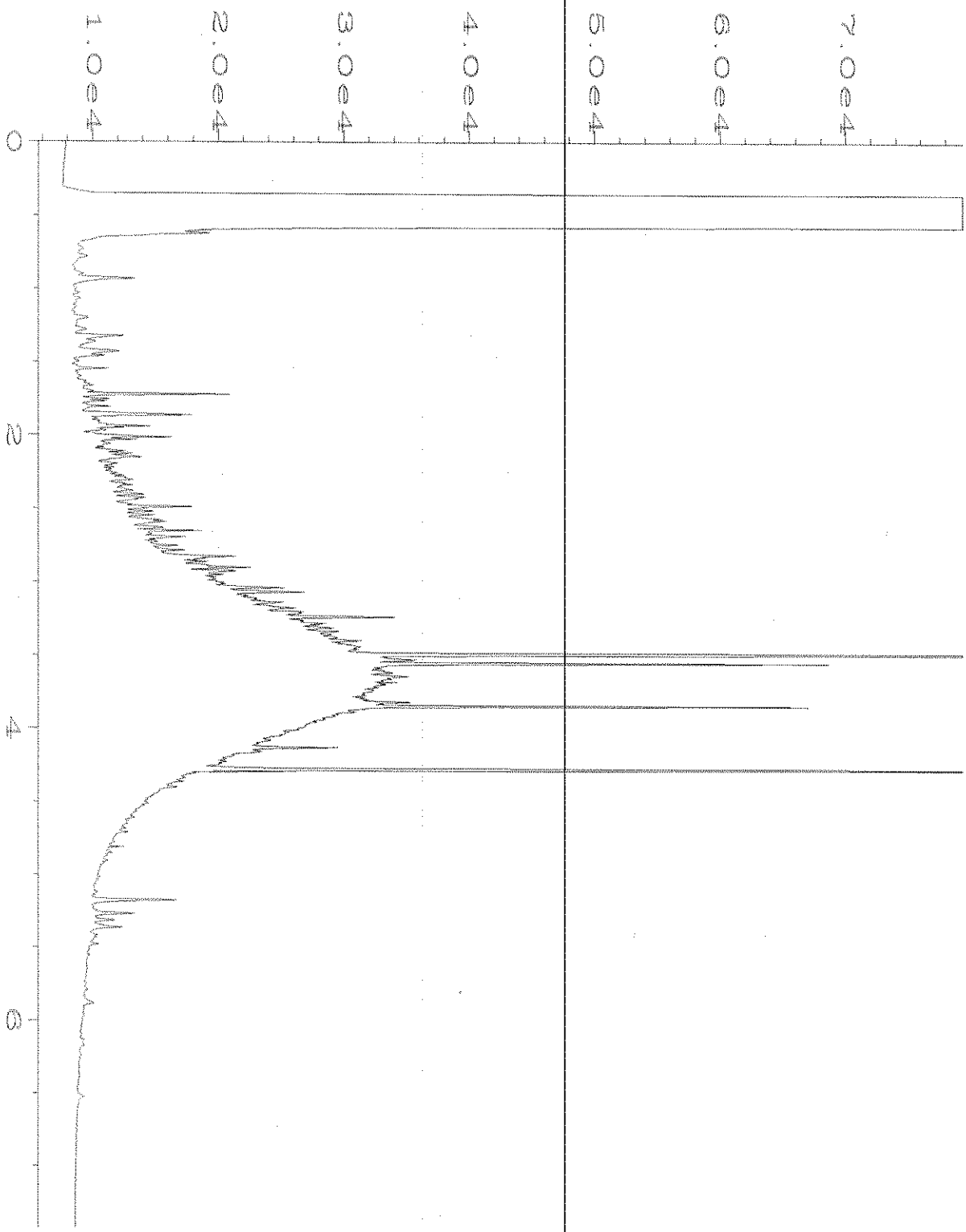


Data File Name : C:\HPCHEM\1\DATA\11-16-18\029F0501.D
Operator : TL
Instrument : GC1
Sample Name : 811268-02
Run Time Bar Code:
Acquired on : 16 Nov 18 03:25 PM
Report Created on: 19 Nov 18 07:03 AM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH

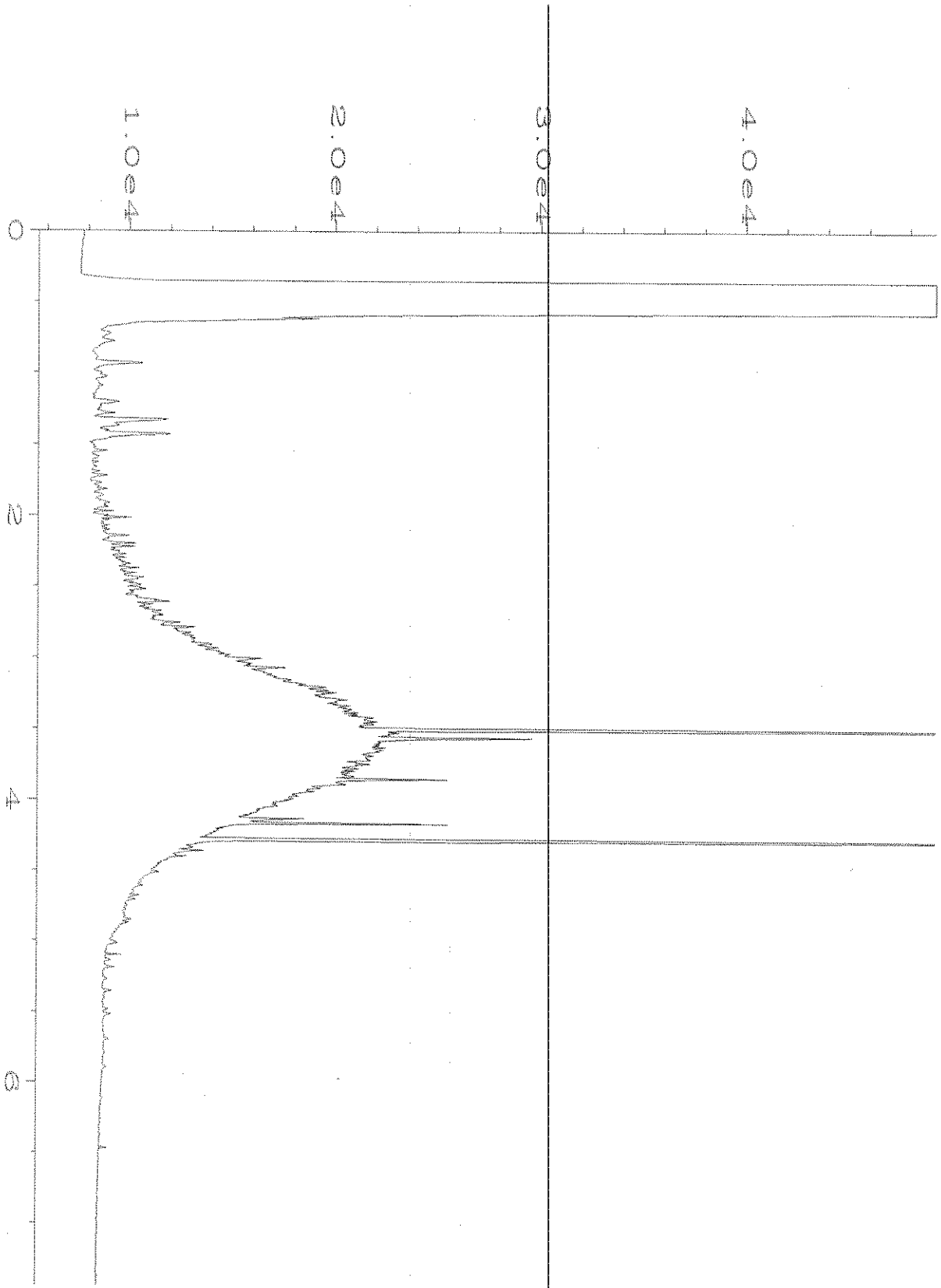


Data File Name	: C:\HPCHEM\1\DATA\11-16-18\030F0501.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 30
Sample Name	: 811268-03	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 16 Nov 18 03:36 PM	Instrument Method	: DX.MTH
Report Created on	: 19 Nov 18 07:03 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\1\DATA\11-16-18\034F0501.D
Operator : TL
Instrument : GC1
Sample Name : 811268-07
Run Time Bar Code:
Acquired on : 16 Nov 18 04:21 PM
Report Created on: 19 Nov 18 07:04 AM

Page Number : 1
Vial Number : 34
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name : C:\HPCHEM\1\DATA\11-16-18\035F0501.D
Operator : TL
Instrument : GC1
Sample Name : 811268-08
Run Time Bar Code:
Acquired on : 16 Nov 18 04:33 PM
Report Created on: 19 Nov 18 07:04 AM

Page Number : 1
Vial Number : 35
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH

17522 Bothell Way NE
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www.riley-group.com

Tait Russell, GIT, Staff Geologist 811268

t: 425.415.0551
m: 425.780.0615
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trussell@riley-group.com

SAMPLE CHAIN OF CUSTODY

ME 11-15-18

Page # 1 of 1 AI3/VW3/BOS

SAMPLERS (*signature*)

PROJECT NAME: Roystone

PO #: 2017-015H

REMARKS: cc: jsawetz@rileygroup.com

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	Dissolved As	cPAHs w/naph			Notes
DPE5	01 A-F	11/13	1545	Water	6												Hold
DPE6	02 A-E		1615		5		X	X		X			X				
DPE7	03 A-F		1230		6		X	X	X				X				Pb poly lab ~~Lead~~
SS1-W1	04 A-D		1415		4		X	X	X								
SS1-W2	05		1230		4		X	X	X								
VP9	06		1340		4		X	X	X								
MW6	07 A-E		1100		5		X	X		X				X			
MW9	08 A-E		1130		5		X	X		X				X			
MW10	09 A-D		1345		4		X	X	X								

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Tait Russell	RGI	11/14	600
Received by:	C. Diggs	Carlos Boggs	Fed Ex	11/15	11:20
Relinquished by:		Liz Member-Bays	FedEx	11/15	1200
Received by:					

Samples received at 14 °C

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

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www.friedmanandbruya.com

December 4, 2018

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

Dear Mr Sawetz:

Included are the results from the testing of material submitted on November 21, 2018 from the Roystone 2017-015H, F&BI 811377 project. There are 13 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
TRG1204R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 21, 2018 by Friedman & Bruya, Inc. from the The Riley Group Roystone 2017-015H, F&BI 811377 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
811377 -01	DPE-5

All quality control requirements were acceptable.

Date of Report: 12/04/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377
Date Extracted: 11/21/18
Date Analyzed: 11/21/18

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
DPE-5 811377-01	<100	104
Method Blank 08-2519 MB	<100	118

Date of Report: 12/04/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377
Date Extracted: 11/26/18
Date Analyzed: 11/26/18

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)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
DPE-5 811377-01	1,300 x	420 x	90
Method Blank 08-2657 MB	<50	<250	103

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	DPE-5	Client:	The Riley Group
Date Received:	11/21/18	Project:	Roystone 2017-015H, F&BI 811377
Date Extracted:	11/29/18	Lab ID:	811377-01
Date Analyzed:	11/29/18	Data File:	811377-01.038
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	1.37

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	Roystone 2017-015H, F&BI 811377
Date Extracted:	11/29/18	Lab ID:	I8-815 mb
Date Analyzed:	11/29/18	Data File:	I8-815 mb.036
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	DPE-5	Client:	The Riley Group
Date Received:	11/21/18	Project:	Roystone 2017-015H, F&BI 811377
Date Extracted:	11/29/18	Lab ID:	811377-01
Date Analyzed:	11/29/18	Data File:	112915.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

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	<50	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	1.6	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
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		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	Roystone 2017-015H, F&BI 811377
Date Extracted:	11/29/18	Lab ID:	08-2676 mb
Date Analyzed:	11/29/18	Data File:	112913.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	98	50	150

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	<50	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
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		

Date of Report: 12/04/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377

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

Laboratory Code: 811333-07 (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	96	69-134

Date of Report: 12/04/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377

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	88	61-133	4

Date of Report: 12/04/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 811377-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	1.37	94	105	75-125	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	108	80-120

Date of Report: 12/04/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377

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

Laboratory Code: 811377-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	114	55-137
Chloromethane	ug/L (ppb)	50	<10	96	61-120
Vinyl chloride	ug/L (ppb)	50	<0.2	96	61-139
Bromomethane	ug/L (ppb)	50	<1	98	20-265
Chloroethane	ug/L (ppb)	50	<1	103	55-149
Trichlorofluoromethane	ug/L (ppb)	50	<1	99	71-128
Acetone	ug/L (ppb)	250	<50	87	48-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	94	71-123
Hexane	ug/L (ppb)	50	<1	100	44-139
Methylene chloride	ug/L (ppb)	50	<5	89	61-126
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	97	68-125
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	94	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	94	79-113
2,2-Dichloropropane	ug/L (ppb)	50	<1	100	48-157
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	91	63-126
Chloroform	ug/L (ppb)	50	<1	91	77-117
2-Butanone (MEK)	ug/L (ppb)	250	<10	90	70-135
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	96	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	91	75-121
1,1-Dichloropropene	ug/L (ppb)	50	<1	98	67-121
Carbon tetrachloride	ug/L (ppb)	50	<1	92	70-132
Benzene	ug/L (ppb)	50	1.6	92	75-114
Trichloroethene	ug/L (ppb)	50	<1	96	73-122
1,2-Dichloropropane	ug/L (ppb)	50	<1	101	80-111
Bromodichloromethane	ug/L (ppb)	50	<1	95	78-117
Dibromomethane	ug/L (ppb)	50	<1	91	73-125
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	109	79-140
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	101	76-120
Toluene	ug/L (ppb)	50	<1	90	73-117
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	98	75-122
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	91	81-116
2-Hexanone	ug/L (ppb)	250	<10	100	74-127
1,3-Dichloropropane	ug/L (ppb)	50	<1	97	80-113
Tetrachloroethene	ug/L (ppb)	50	<1	92	72-113
Dibromochloromethane	ug/L (ppb)	50	<1	95	69-129
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	96	79-120
Chlorobenzene	ug/L (ppb)	50	<1	91	75-115
Ethylbenzene	ug/L (ppb)	50	<1	95	66-124
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	90	76-130
m,p-Xylene	ug/L (ppb)	100	<2	96	63-128
o-Xylene	ug/L (ppb)	50	<1	102	64-129
Styrene	ug/L (ppb)	50	<1	101	56-142
Isopropylbenzene	ug/L (ppb)	50	<1	100	74-122
Bromoform	ug/L (ppb)	50	<1	95	49-138
n-Propylbenzene	ug/L (ppb)	50	<1	97	65-129
Bromobenzene	ug/L (ppb)	50	<1	94	70-121
1,3,5-Trimethylbenzene	ug/L (ppb)	50	<1	102	60-138
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	95	79-120
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	93	62-125
2-Chlorotoluene	ug/L (ppb)	50	<1	97	40-159
4-Chlorotoluene	ug/L (ppb)	50	<1	95	76-122
tert-Butylbenzene	ug/L (ppb)	50	<1	102	74-125
1,2,4-Trimethylbenzene	ug/L (ppb)	50	<1	99	59-136
sec-Butylbenzene	ug/L (ppb)	50	<1	100	69-127
p-Isopropyltoluene	ug/L (ppb)	50	<1	102	64-132
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	94	77-113
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	88	75-110
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	92	70-120
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	99	69-129
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	101	66-123
Hexachlorobutadiene	ug/L (ppb)	50	<1	97	53-136
Naphthalene	ug/L (ppb)	50	<1	103	60-145
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	96	59-130

Date of Report: 12/04/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377

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	123	118	50-157	4
Chloromethane	ug/L (ppb)	50	103	95	62-130	8
Vinyl chloride	ug/L (ppb)	50	102	95	70-128	7
Bromomethane	ug/L (ppb)	50	99	90	62-188	10
Chloroethane	ug/L (ppb)	50	110	99	66-149	11
Trichlorofluoromethane	ug/L (ppb)	50	109	96	70-132	13
Acetone	ug/L (ppb)	250	82	86	44-145	5
1,1-Dichloroethene	ug/L (ppb)	50	103	98	75-119	5
Hexane	ug/L (ppb)	50	98	101	51-153	3
Methylene chloride	ug/L (ppb)	50	96	89	63-132	8
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	101	97	70-122	4
trans-1,2-Dichloroethene	ug/L (ppb)	50	102	97	76-118	5
1,1-Dichloroethane	ug/L (ppb)	50	98	95	77-119	3
2,2-Dichloropropane	ug/L (ppb)	50	110	98	62-141	12
cis-1,2-Dichloroethene	ug/L (ppb)	50	96	91	76-119	5
Chloroform	ug/L (ppb)	50	95	93	78-117	2
2-Butanone (MEK)	ug/L (ppb)	250	79	90	49-147	13
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	95	97	78-114	2
1,1,1-Trichloroethane	ug/L (ppb)	50	96	91	80-116	5
1,1-Dichloropropene	ug/L (ppb)	50	97	99	78-119	2
Carbon tetrachloride	ug/L (ppb)	50	96	92	72-128	4
Benzene	ug/L (ppb)	50	92	93	75-116	1
Trichloroethene	ug/L (ppb)	50	93	94	72-119	1
1,2-Dichloropropane	ug/L (ppb)	50	96	102	79-121	6
Bromodichloromethane	ug/L (ppb)	50	93	96	76-120	3
Dibromomethane	ug/L (ppb)	50	88	91	79-121	3
4-Methyl-2-pentanone	ug/L (ppb)	250	94	106	54-153	12
cis-1,3-Dichloropropene	ug/L (ppb)	50	93	100	76-128	7
Toluene	ug/L (ppb)	50	91	93	79-115	2
trans-1,3-Dichloropropene	ug/L (ppb)	50	91	100	76-128	9
1,1,2-Trichloroethane	ug/L (ppb)	50	86	93	78-120	8
2-Hexanone	ug/L (ppb)	250	82	100	49-147	20
1,3-Dichloropropane	ug/L (ppb)	50	89	98	81-115	10
Tetrachloroethene	ug/L (ppb)	50	93	94	78-109	1
Dibromochloromethane	ug/L (ppb)	50	92	97	63-140	5
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	89	99	82-118	11
Chlorobenzene	ug/L (ppb)	50	91	93	80-113	2
Ethylbenzene	ug/L (ppb)	50	96	97	83-111	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	95	92	76-125	3
m,p-Xylene	ug/L (ppb)	100	97	98	84-112	1
o-Xylene	ug/L (ppb)	50	105	103	81-117	2
Styrene	ug/L (ppb)	50	99	103	83-121	4
Isopropylbenzene	ug/L (ppb)	50	103	100	81-122	3
Bromoform	ug/L (ppb)	50	91	94	40-161	3
n-Propylbenzene	ug/L (ppb)	50	97	101	81-115	4
Bromobenzene	ug/L (ppb)	50	91	97	80-113	6
1,3,5-Trimethylbenzene	ug/L (ppb)	50	104	103	83-117	1
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	91	98	79-118	7
1,2,3-Trichloropropane	ug/L (ppb)	50	86	97	74-116	12
2-Chlorotoluene	ug/L (ppb)	50	97	101	79-112	4
4-Chlorotoluene	ug/L (ppb)	50	93	99	80-116	6
tert-Butylbenzene	ug/L (ppb)	50	105	103	81-119	2
1,2,4-Trimethylbenzene	ug/L (ppb)	50	101	102	81-121	1
sec-Butylbenzene	ug/L (ppb)	50	102	101	83-123	1
p-Isopropyltoluene	ug/L (ppb)	50	104	103	81-122	1
1,3-Dichlorobenzene	ug/L (ppb)	50	93	97	80-115	4
1,4-Dichlorobenzene	ug/L (ppb)	50	87	91	77-112	4
1,2-Dichlorobenzene	ug/L (ppb)	50	93	95	79-115	2
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	98	100	62-133	2
1,2,4-Trichlorobenzene	ug/L (ppb)	50	104	103	75-119	1
Hexachlorobutadiene	ug/L (ppb)	50	101	97	70-116	4
Naphthalene	ug/L (ppb)	50	103	103	72-131	0
1,2,3-Trichlorobenzene	ug/L (ppb)	50	96	96	74-122	0

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.

81377

SAMPLE CHAIN OF CUSTODY

ME 11-21-18

AR2 / C03 / VM2

Page # 1 of 1

Report To Jerry Sawetz

Company Riley Group Inc

Address 17522 Bothell Way NE

City, State, ZIP Bothell, WA, 98011

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

SAMPLERS (*signature*)

PROJECT NAME: Rogstone

PO # 2017-015 H

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	Dissolved Lead	[illegible]			Notes
DPE-5	01 A-I	11/21/18	11:00	water	9		X	X		X			X	X			2x 0.5L amber 6 voa, 1 poly
																	Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Chinn	RGI	11/21/18	12:00
Received by:	Liz Webber	FBI	11/21/18	1200
Relinquished by:				
Received by:				

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

DRAFT

Date of Report: 12/10/18
Date Received: 11/15/18
Project: Roystone 2018-015H, F&BI 811268
Date Extracted: 11/16/18
Date Analyzed: 12/05/18

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

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-134)
DPE6 811268-02	180	<250	98
DPE7 811268-03	430 x	<250	ip
MW6 811268-07	570 x	<250	ip
MW9 811268-08	140	<250	ip
Method Blank 08-2621 MB	<50	<250	103

17522 Bothell Way NE
Bothell, WA 98011
www.riley-group.com

Tait Russell, GIT, Staff Geologist 81268

t: 425.415.0551
m: 425.780.0615
f: 425.415.0311
trussell@riley-group.com

SAMPLE CHAIN OF CUSTODY

ME 11-15-18

Page # 1 of 1 AI3

SAMPLERS (signature): [signature]

PROJECT NAME: Roystone

PO #: 2017-015H

REMARKS: cc: jsawetz@rileygroup.com

INVOICE TO:

TURNAROUND TIME
- ☑ Standard Turnaround VMB
- ☐ RUSH 805
- 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	ANALYSES REQUESTED: TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Rista	cPAHs w/Asph	Dr w/SG		Notes
OPE5	01 A-F	11/13	1545	Water	6												Hold
OPE6	02 A-E		1615		5		X	X		X			X		(X)		
OPE7	03 A-F		1230		6		X	X	X				X		(X)		PD poly lidded & Lead'd
SS1-W1	04 A-D		1415		4		X	X	X								
SS1-W2	05		1230		4		X	X	X						~~(X)~~		(X) per JS 12/13/18
VP9	06		1340		4		X	X	X								ME
MW6	07 A-E		1100		5		X	X		X				X	◆		◆ per JS 12/12/18
MW9	08 A-E		1130		5		X	X		X				X	(X)		
MW10	09 A-D	↓	1345	↓	4		X	X	X								ME

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Tait Russell	RGI	11/14	600
Received by: [signature]	Carlos Boggs	Fed Ex	11/16	11:20
Relinquished by: [signature]	Liz Wember-Berg	FTB1	11/15	1200
Received by:				

Samples received at 14°C

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

December 10, 2018

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

Dear Mr Sawetz:

Included are the additional results from the testing of material submitted on November 21, 2018 from the Roystone 2017-015H, F&BI 811377 project. There are 4 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
TRG1210R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 21, 2018 by Friedman & Bruya, Inc. from the The Riley Group Roystone 2017-015H, F&BI 811377 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
811377 -01	DPE-5

All quality control requirements were acceptable.

Date of Report: 12/10/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377
Date Extracted: 11/26/18
Date Analyzed: 12/05/18

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

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-134)
DPE-5 811377-01	99	<250	101
Method Blank 08-2657 MB2	<50	<250	107

Date of Report: 12/10/18
Date Received: 11/21/18
Project: Roystone 2017-015H, F&BI 811377

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 Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	100	63-142	4

Data Qualifiers & Definitions

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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.

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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.

811377

SAMPLE CHAIN OF CUSTODY ME 11-21-18

AS2 / 003 / VM2

Page # 1 of 2

Report To Jerry Sawetz
Company RI&G Group Inc
Address 17522 Bothell Way NE
City, State, ZIP Bothell, WA, 98011
Phone 425-415-0551 Email jsawetz@riley-group.com

SAMPLERS (signature)

PROJECT NAME: Rogstone
PO #: 2017-015 H

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	Dissolved Lead	[illegible]	Dx Silica Gel		Notes
DPE-5	01 A-E	11/21/18	11:00	water	9		X	X		X			X	X	X		2x 40mL amber 6 voa, 1 poly
															5 12/3/18		

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Logan Chinn	RGI	11/21/18	12:00
Received by:	Liz Webber	FTBi	11/21/18	1200
Relinquished by:				
Received by:				

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