May 15, 2017

Mr. Rogelio Riojas
Sea Mar Community Health Centers
1040 South Henderson Street
Seattle, Washington 98108

RE: 1st Quarter 2017 Groundwater Monitoring Report
Sea Mar Community Health Center
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
RGI Project No. 2016-023A

Dear Mr. Riojas:

The Riley Group, Inc. (RGI) has completed the First Quarter 2017 Groundwater Monitoring Report pertaining to the Sea Mar Community Health Center, located at 9635 Des Moines Memorial Drive South, Seattle, Washington (hereafter referred to as the Site, Figure 1).

SCOPE OF WORK

The objectives for this project include the following:

- Perform groundwater compliance monitoring for eight existing groundwater monitoring wells located throughout the Site.

This quarterly groundwater sampling event did not include sampling and testing of monitoring wells located on the west-adjoining property.

GROUNDWATER SAMPLING EVENT

On March 31, 2017, RGI sampled eight groundwater monitoring wells (MW-2, MW-3, MW-11, MW-12, MW-14, and MW-18 through MW-20), located throughout the Site. RGI attempted to sample monitoring wells, MW-4, MW-15, MW-16, and MW-17, however, they may have been covered and/or destroyed during construction.

The locations of all groundwater monitoring wells are illustrated on Figure 2.

GROUNDWATER ELEVATIONS AND FLOW DIRECTION

Prior to purging each groundwater monitoring well, depth to static groundwater was measured using an electronic water level meter in all 0.75- to 1.5-inch-diameter monitoring wells located on the Site. Depth to groundwater ranged from 1.58 to 5.41 feet below top of well casing (TOC). Corresponding groundwater elevations ranged from 4.84 feet (MW-11) to 17.72 feet (MW-2) (Table 1 and Figure 2).

Groundwater flow direction was generally determined to be north beneath the Site. This groundwater flow data is generally consistent with previous groundwater sampling events.

GROUNDWATER SAMPLE COLLECTION

Prior to sampling, groundwater monitoring wells were purged using a peristaltic pump and new polyethylene tubing. Well purging continued until at least three well volumes were purged, until

field parameters stabilized, or the well pumped dry. During the March 2017 event, water quality parameters (for example, water temperature, dissolved oxygen, pH, and conductivity) were obtained using a Horiba U-52 water quality meter with a flow-through cell. Groundwater was transferred to laboratory-supplied containers using standard low-flow sampling methodology. Sample containers were placed in an ice-chilled cooler and transported to the analytical laboratory using standard chain-of-custody protocols. Groundwater recovery, startup time, and duration of the purging operations were recorded on field data sheets. These field documents are maintained in a permanent project file and are available upon written request.

Purge water was placed in a labeled 55-gallon drum and left on the Site pending profiling and disposal.

LABORATORY ANALYSIS

Groundwater samples were submitted to Friedman and Bruya, Inc. of Seattle, Washington and analyzed for one or more of the following:

- Gasoline-range total petroleum hydrocarbons (TPH) using the Northwest Test Method NWTPH-Gx.
- Diesel-range TPH using Northwest Test Method NWTPH-Dx without silica gel cleanup.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021B.
- Halogenated Volatile Organic Compounds (HVOCs) using EPA Method 8260C.
- Dissolved Arsenic using EPA Method 200.8.

Copies of the analytical laboratory report and associated sample chain-of-custody are included in Appendix A.

GROUNDWATER CLEANUP LEVELS (CULs)

Groundwater analytical results obtained during this project were compared to the following groundwater screening levels:

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

When no MTCA Method A CULs for Ground Water had been established for a given compound, the most stringent of the following groundwater screening levels were referenced:

- MTCA Method B Standard Formula Values for Ground Water obtained from the Cleanup Levels and Risk Calculations (CLARC) database.

FINDINGS

ANALYTICAL RESULTS

Analytical results and CULs for the Site are summarized in Table 1 and Figure 2.

Gasoline-range TPH and BTEX were not detected above laboratory detection limits (non-detect) in the two samples submitted for analysis (MW-11 and MW-12).

Diesel and oil-range TPH were either not detected or were detected at concentrations below the MTCA Method A CUL of 500 µg/L in the eight samples submitted for analysis (MW-2, MW-3, MW-11, MW-12, MW-14, MW-18 through MW-20). Several of the low level detections were “flagged” by the lab chemist as “the sample chromatographic pattern does not resemble the fuel standard

used for quantitation."

Three of four groundwater samples analyzed for HVOCs were either non-detect, or had concentrations below the applicable MTCA Method A CUL. Tricholorethene (TCE) was detected at a concentration of 9.1 µg/L in MW-18 which exceeds the MTCA Method A CUL of 5 µg/L.

Dissolved arsenic was either not detected or was detected at concentrations below the MTCA Method A CUL of 5 µg/L in all wells.

CONCLUSIONS & RECOMMENDATIONS

Based on our findings, RGI draws the following conclusions:

- Groundwater concentrations of gasoline-, diesel, and oil-range TPH, BTEX, and dissolved arsenic are below the applicable groundwater CULs throughout the Site.
- HVOCs are below their applicable groundwater CULs throughout the Site except at MW-18, where TCE was detected at 9.1 µg/L, which exceeds the MTCA Method A CUL of 5 µg/L.

Based on the frequency of wells sampled to date and/or previous analytical results, RGI recommends continued quarterly groundwater monitoring of monitoring wells MW-14, MW-18 through MW-20 on the Site and the replacement and/or repair of monitoring wells MW-4, MW-8, MW-16, and MW-17 (as requested in December 2016). All of the existing/replace wells, except for MW-16 and MW-17 are located near the Site's western property line. Wells MW-16 and MW-17 are related to the former single-family residence and heating oil UST and former gasoline station area, respectively.

This report is the property of RGI, Sea Mar Community Health Centers, and their representatives 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 9635 Des Moines Memorial Drive South in Seattle, Washington. No other warranty, expressed or implied, is made.

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

Respectfully submitted,

THE RILEY GROUP, INC.

Amelia C. Oates, GIT
Project Geologist

Anna J. Jordan, LG
Project Geologist

Paul D. Riley, LG, LHG
Principal

Attachments *Table 1, Summary of Groundwater Sample Analytical Results*
Figure 1, Property Vicinity Map
Figure 2, Summary of Monitoring Well and Test Probe Groundwater Data
Appendix A, Analytical Laboratory Report

Distribution *Mr. Rogelio Riojas, Sea Mar Community Health Centers (PDF)*

Table 1, Page 1 of 4. Summary of Groundwater Analytical Laboratory Results
Sea Mar Community Health Center
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023A

Sample Number	Sample Date	Top of Casing (TOC) Elevation	Depth to Water (below TOC)	Groundwater Elevation	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	Trans-1,2-DCE	VC	1,1-DCE	Other HVOCs	Other VOCs	SVOCs	Total Metals					Dissolved Metals				
						B	T	E	X	w/o silica gel		w/ silica gel											As	Cd	Cr	Pb	Hg	As	Cd	Cr	Pb	Hg
Monitoring Wells																																	
MW1	**Screened Interval 5 - 10 ft bgs, Total boring depth 10 ft bgs, MW1 destroyed during construction.**																																
MW1	05/06/16	28.3	5.40	22.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW1-H2O	03/07/16	28.3	4.65	23.6	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW1	01/11/08	28.3	5.70	22.59	----	----	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW2	**Screened Interval 5 - 10 ft bgs, Total boring depth 9.5 bgs.**																																
MW2	03/31/17	19.30	1.58	17.72	----	----	----	----	----	**140 x**	ND<270	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1	----	----	----	----
MW2	12/15/16	19.30	1.69	17.61	----	----	----	----	----	**210 x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW2	09/12/16	19.30	2.30	17.00	----	----	----	----	----	**200 x**	ND<300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW2	07/15/16	19.30	2.05	17.25	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW2	06/30/16	19.30	2.02	17.28	----	----	----	----	----	**290x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW2-H2O	03/07/16	19.30	1.81	17.5	----	----	----	----	----	**340x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW2	01/11/08	19.30	2.10	17.20	----	----	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW3	**Screened Interval 5 - 10 ft bgs, Total boring depth 12 ft bgs.**																																
MW3	03/31/17	20.3	3.29	17.03	----	----	----	----	----	ND<54	ND<270	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1	----	----	----	----
MW3	09/12/16	20.3	5.04	15.28	----	----	----	----	----	ND<60	ND<300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW3	01/11/08	20.3	3.66	16.66	----	----	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW4	**Screened Interval 5 - 10 ft bgs, Total boring depth 12 ft bgs, MW4 destroyed during construction.**																																
MW4	07/15/16	13.13	5.88	7.25	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW4	06/30/16	13.13	5.84	7.29	----	----	----	----	----	ND<50	ND<250	----	----	ND<1	**3.9**	**16**	ND<1	**4.9**	ND<1	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW4	05/06/16	13.13	5.28	7.85	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW4-H2O	03/07/16	13.13	4.56	8.57	----	----	----	----	----	**52x**	ND<250	----	----	ND<1	ND<1	**7.4**	ND<1	**4.6**	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
82114OS-1:GW	08/21/14	13.13	----	----	----	----	----	----	----	----	----	----	----	ND<1	**7.02**	**31.9**	ND<1	**6.43**	ND<1	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----
52214OS-1:GW	05/22/14	13.13	----	----	----	----	----	----	----	----	----	----	----	ND<1	**5.35**	**16.8**	ND<1	**7.26**	ND<1	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----
21414OS-1:GW	02/14/14	13.13	----	----	----	----	----	----	----	----	----	----	----	ND<1	**5.31**	**15.3**	ND<1	ND<0.20	ND<1	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----
OS-1-81613	08/16/13	13.13	----	----	----	----	----	----	----	----	----	----	----	ND<1	**9.05**	**38.0**	ND<1	**14.6**	ND<1	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW4	01/16/08	13.13	6.81	6.32	----	----	----	----	----	----	----	----	----	ND<1	**140**	**63**	ND<1	**9.8**	ND<1	----	**EDC=1.0 CE=7.3 1,3-DB=1.6**	ND<0.1	**2.88**	ND<1	**2.44**	**8.98**	ND<0.2	----	----	----	----	----
MW4	01/11/08	13.13	6.81	6.32	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	ND<50	ND<250	ND<1	**150ve**	**70**	ND<1	**12**	ND<1	ND	**EDC=1.1**	----	----	----	----	----	----	----	----	----	----	----	----
MW5	**Screened Interval 5 - 10 ft bgs, Total boring depth 10 ft bgs, MW5 decomissioned 06/08/16.**																																
MW5	05/06/16	10.00	2.65	7.35	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW5-H2O	03/07/16	10.00	2.31	7.69	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
52214OS-2:GW	05/22/14	10.00	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<0.5	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
022014OS-2:GW	02/20/14	10.00	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<0.5	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
OS-2-81613	05/16/13	10.00	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
MW5	01/11/08	10.00	2.02	7.98	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW6	**Screened Interval 5 - 10 ft bgs, Total boring depth 10 ft bgs, MW6 decomissioned 06/08/16.**																																
MW6	05/06/16	6.78	1.89	4.89	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW6-H2O	03/07/16	6.78	2.695	4.09	----	----	----	----	----	**200x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
022014OS-4:GW	02/20/14	6.78	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<0.5	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
OS-4-81613	08/16/13	6.78	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
MW6	01/16/08	6.78	2.84	3.94	----	----	----	----	----	----	----	ND<93	ND<460	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW6	01/11/08	6.78	2.84	3.94	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	**Acetone=22**	----	----	----	----	----	----	----	----	----	----	----	----
MW7	**Screened Interval 5 - 10 ft bgs, Total boring depth 10 ft bgs, MW7 decomissioned 06/08/16.**																																
MW7	05/06/16	9.17	0	9.17	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water					**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**5**	**5**	**----**	**----**	**0.2**	**----**	**Analyte Specific**	**EDC = 5**	**Analyte Specific**	**5**	**5**	**50**	**15**	**2**	**5**	**5**	**50**	**15**	**2**	
MTCA Method B Cleanup Levels for Ground Water[2]					**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**16**	**160**	**----**	**400**	**----**	**Acetone = 7,200**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**

Table 1, Page 2 of 4. Summary of Groundwater Analytical Laboratory Results
Sea Mar Community Health Center
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023A

Sample Number	Sample Date	Top of Casing (TOC) Elevation	Depth to Water (below TOC)	Groundwater Elevation	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	Trans-1,2-DCE	VC	1,1-DCE	Other HVOCs	Other VOCs	SVOCs	Total Metals					Dissolved Metals				
						B	T	E	X	w/o silica gel		w/ silica gel											As	Cd	Cr	Pb	Hg	As	Cd	Cr	Pb	Hg
MW7-H2O	03/07/16	9.17	0.0	----	**2,500**	**11**	ND<1	**3.6**	**3.8**	**1,500x**	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
022014OS-3:GW	02/20/14	9.17	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<0.5	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
OS-3-81613	08/16/13	9.17	----	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
MW7	01/25/08	9.17	0.80	8.37	**4,000**	**43**	**20**	**34**	**27**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW7	01/16/08	9.17	0.80	8.37	**5,500**	**61**	**29**	**46**	**45**	----	----	----	----	----	----	----	----	----	----	----	----	----	**10.8**	ND<1	**2.12**	**2.83**	ND<0.2	----	----	----	----	----
MW7	01/11/08	9.17	0.83	8.34	----	----	----	----	----	----	----	**890 x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW8	**Screened Interval 7.5 - 12.5 ft bgs, Total boring depth 13 ft bgs, MW8 destroyed during construction.**																															
MW8	09/12/16	----	----	----	Well Not Locatable (Buried Under Asphalt)																													
MW8	07/15/16	14.79	5.67	9.12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW8	06/30/16	14.79	4.78	10.01	----	----	----	----	----	**100x**	ND<250	----	----	ND<1	**33**	**7.0**	ND<1	ND<0.2	**1.7**	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW8	05/06/16	14.79	4.53	10.26	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW8-H2O	03/07/16	14.79	4.675	10.12	----	----	----	----	----	**80x**	ND<330	----	----	ND<1	**20**	**5.5**	ND<1	ND<0.2	**1.9**	ND	----	----	----	----	----	----	----	----	----	----	----	----	----
MW9	**Screened Interval 5 - 10 ft bgs, Total boring depth 10 ft bgs, MW9 decomissioned 06/08/16.**																															
MW9	05/06/16	8.64	0	8.64	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW9-H2O	03/07/16	8.64	0.0	8.64	ND<100	----	----	----	----	**730x**	ND<300	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	ND<1	ND<1	ND<1	ND<1	----	----	----	----	----
MW10	**Screened Interval 9 - 14 ft bgs, Total boring depth 14 ft bgs, MW10 decomissioned 06/15/16.**																															
MW10	05/06/16	27.36	7.84	19.52	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW10-H2O	03/07/16	27.36	5.965	21.4	----	----	----	----	----	**56x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW11	**Screened Interval 5 - 15 ft bgs, Total boring depth 15 ft bgs, MW11 damaged during construction.**																															
MW11	03/31/17	9.47	4.63	4.84	ND<100	ND<1	ND<1	ND<1	ND<3	**76x**	ND<280	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND<1	----	----	----	----
MW11	12/15/16	9.47	4.74	4.73	ND<100	ND<1	ND<1	ND<1	ND<3	**140x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW11	09/12/16	9.47	----	----	ND<100	ND<1	ND<1	ND<1	ND<3	**69x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW11	07/15/16	9.47	4.51	4.96	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW11	06/30/16	9.47	5.17	4.30	ND<100	ND<1	ND<1	ND<1	ND<3	**190x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW11	05/06/16	9.47	4.77	4.70	ND<100	**1.7**	ND<1	ND<1	ND<3	**200x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW12	**Screened Interval 5 - 15 ft bgs, Total boring depth 15 ft bgs**																															
MW12	03/31/17	7.64	2.78	4.86	ND<100	ND<1	ND<1	ND<1	ND<3	ND<60	ND<300	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	**1.28**	----	----	----	----
MW12	12/15/16	7.64	2.47	5.17	ND<100	ND<1	ND<1	ND<1	ND<3	ND<80	ND<400	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW12	09/12/16	7.64	3.44	4.20	ND<100	ND<1	ND<1	ND<1	ND<3	**80x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW12	07/15/16	7.64	2.63	5.01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW12	06/30/16	7.64	2.92	4.72	ND<100	ND<1	ND<1	ND<1	ND<3	**220x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW12	05/06/16	7.64	2.41	5.23	ND<100	ND<1	ND<1	ND<1	ND<3	**200x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW13	**Screened Interval 3.25 - 13.25 ft bgs, Total boring depth 15 ft bgs, MW13 destroyed during construction.**																															
MW13	09/12/16	----	----	----	Well Not Locatable																													
MW13	07/15/16	7.64	4.50	3.14	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW13	06/30/16	7.64	4.34	3.30	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	ND<1	----	ND<1	----
MW13	05/06/16	7.64	4.62	3.02	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	ND<1	----	**5.32**	----	----	----	ND<1	----	ND<1	----
MW14	**Screened Interval 5-15 ft bgs, Total boring depth 15.5 ft bgs**																															
MW14	03/31/17	14.65	5.02	9.63	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	**1.31**	----	----	----	----
MW14	12/15/16	14.65	5.03	9.62	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW14	09/12/16	14.65	5.82	8.83	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW14	07/15/16	14.65	5.60	9.05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW14	06/30/16	14.65	5.11	9.54	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW14	05/06/16	14.65	4.64	10.01	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water					**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**5**	**5**	**----**	**----**	**0.2**	**----**	**Analyte Specific**	**Analyte Specific**	**Analyte Specific**	**5**	**5**	**50**	**15**	**2**	**5**	**5**	**50**	**15**	**2**		
MTCA Method B Cleanup Levels for Ground Water[2]					**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**16**	**160**	**----**	**400**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	

Table 1, Page 3 of 4. Summary of Groundwater Analytical Laboratory Results
Sea Mar Community Health Center
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023A

Sample Number	Sample Date	Top of Casing (TOC) Elevation	Depth to Water (below TOC)	Groundwater Elevation	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	Trans-1,2-DCE	VC	1,1-DCE	Other HVOCs	Other VOCs	SVOCs	Total Metals					Dissolved Metals				
						B	T	E	X	w/o silica gel		w/ silica gel											As	Cd	Cr	Pb	Hg	As	Cd	Cr	Pb	Hg
MW15	**Screened Interval 5.75 - 15.75 ft bgs, Total boring depth 17 ft bgs, MW15 covered during construction (inaccessible)**																															
MW15	12/15/16	14.73	4.39	10.34	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW15	09/12/16	14.73	5.16	9.57	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW15	07/15/16	14.73	5.04	9.69	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW15	06/30/16	14.73	4.65	10.08	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW15	05/06/16	14.73	4.31	10.42	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW16	**Screened Interval 9 - 19 ft bgs, Total boring depth 20 ft bgs, MW16 destroyed and/or damaged during construction (unlocatable).**																															
MW16	09/12/16	22.03	2.24	19.79	----	----	----	----	----	**110x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW16-W	07/14/16	22.03	2.10	19.93	----	----	----	----	----	**150x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW17	**Screened Interval 5-15 ft bgs, Total boring depth 15 ft bgs, MW17 damaged during construction.**																															
MW17	12/15/16	11.52	6.00	5.52	----	----	----	----	----	ND<50	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	Naph = ND	----	----	----	----	----	----	----	----	----	----
MW17	09/12/16	11.52	3.01	8.51	----	----	----	----	----	**76x**	**310**	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW17-W	07/14/16	11.52	3.01	8.51	ND<100	ND<0.35	ND<1	ND<1	ND<3	**230x**	ND<260	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	ND	----	----	----	----	----	----	----	----	----	----	----
MW18	**Screened Interval 10 - 20 ft bgs, Total boring depth 20 ft bgs**																															
MW18	03/31/17	16.41	5.41	11.00	----	----	----	----	----	ND<53	ND<270	----	----	ND<1	**9.1**	**1.8**	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	ND<1	----	----	----	----
MW18	12/15/16	16.41	5.85	10.56	----	----	----	----	----	ND<50	ND<250	----	----	ND<1	**1.5**	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW18	09/12/16	16.41	6.90	9.51	----	----	----	----	----	ND<50	ND<250	----	----	ND<1	**2.1**	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW18-W	07/14/16	16.41	6.27	10.14	ND<100	ND<0.35	ND<1	ND<1	ND<3	**63x**	ND<250	----	----	ND<1	**130**	**15**	ND<1	ND<0.2	**1.9**	ND	ND	----	----	----	----	----	----	----	----	----	----	----
MW19	**Screened Interval 10 - 20 ft bgs, Total boring depth 20 ft bgs**																															
MW19	03/31/17	15.85	4.10	11.75	----	----	----	----	----	ND<54	ND<270	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	**1.6**	ND	----	----	----	----	----	----	----	----	ND<1	----	----	----
MW19	12/15/16	15.85	4.47	11.38	----	----	----	----	----	ND<50	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	**DCA=2.2**	----	----	----	----	----	----	----	----	----	----	----	----
MW19	09/12/16	15.85	5.54	10.31	----	----	----	----	----	**81x**	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	**DCA=1.6**	----	----	----	----	----	----	----	----	----	----	----	----
MW19	09/08/16	15.85	8.00	7.85	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MW20	**Screened Interval 10 - 20 ft bgs, Total boring depth 23 ft bgs**																															
MW20	03/31/17	16.7	5.19	11.51	----	----	----	----	----	ND<54	ND<270	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	**3.36**	----	----	----	----
MW20	12/15/16	16.7	5.62	11.08	----	----	----	----	----	ND<50	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW20	09/12/16	16.7	6.55	10.15	----	----	----	----	----	ND<50	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
MW20	09/08/16	16.7	8.00	8.70	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Monitoring Wells on West-Adjoining Property																																
MW6																																
BK MW6	09/30/16	16.55	6.46	10.09	----	----	----	----	----	----	----	----	----	ND<1	**16**	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
82114MW6:GW	08/22/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	**88.6**	**2.99**	ND<1.00	ND<0.200	ND<1.00	ND	ND	----	----	----	----	----	----	----	----	----	----	----
52114-MW6:6W	05/21/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	**18.9**	ND<1.00	ND<1.00	ND<0.200	ND<1.00	ND	ND	----	----	----	----	----	----	----	----	----	----	----
02201 4MW6:G W	02/20/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	**85.0**	**2.17**	ND<1.00	ND<0.200	ND<1.00	ND	ND	----	----	----	----	----	----	----	----	----	----	----
MW7																																
BK MW7	09/30/16	14.38	4.45	9.93	----	----	----	----	----	----	----	----	----	ND<1	**300**	**50**	ND<1	**3.3**	ND<1	**EDC=5.6**	----	----	----	----	----	----	----	----	----	----	----	----
82114MW7:GW	08/22/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	ND<0.500	**30.0**	ND<1.00	**8.19**	ND<1.00	**EDC=1.76**	ND	----	----	----	----	----	----	----	----	----	----	----
52114-MW7:6W	05/21/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	ND<0.500	**143**	**1.97**	**34.5**	ND<1.00	**EDC=2.79**	ND	----	----	----	----	----	----	----	----	----	----	----
21414MW7:GW	02/14/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	**1.94**	**297**	**3.44**	**95.8**	ND<1.00	**EDC=15.7**	ND	----	----	----	----	----	----	----	----	----	----	----
MW8																																
BK MW8	09/30/16	13.86	4.13	9.73	----	----	----	----	----	----	----	----	----	ND<1	**62**	**8.3**	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
82114MW8:GW	08/22/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	**615**	**22.1**	ND<1.00	ND<0.200	**1.05**	**EDC=4.87**	ND	----	----	----	----	----	----	----	----	----	----	----
52114-MW8:6W	05/21/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	**558**	**23.1**	ND<1.00	ND<0.200	ND<1.00	ND	ND	----	----	----	----	----	----	----	----	----	----	----
21414MW8:GW	02/14/14	----	----	----	----	----	----	----	----	----	----	----	----	ND<1.00	**878**	**32.0**	ND<1.00	ND<0.200	**1.97**	**EDC=7.19**	ND	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water					**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**5**	**5**	**----**	**----**	**0.2**	**----**	**Analyte Specific**	**Analyte Specific**	**Analyte Specific**	**5**	**5**	**50**	**15**	**2**	**5**	**5**	**50**	**15**	**2**
MTCA Method B Cleanup Levels for Ground Water[2]					**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**16**	**160**	**----**	**400**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**	**----**

Table 1, Page 4 of 4. Summary of Groundwater Analytical Laboratory Results
Sea Mar Community Health Center
9635 Des Moines Memorial Drive South, Seattle, Washington 98108
The Riley Group, Inc. Project No. 2016-023A

Sample Number	Sample Date	Top of Casing (TOC) Elevation	Depth to Water (below TOC)	Groundwater Elevation	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	Trans-1,2-DCE	VC	1,1-DCE	Other HVOCs	Other VOCs	SVOCs	Total Metals					Dissolved Metals				
						B	T	E	X	w/o silica gel		w/ silica gel											As	Cd	Cr	Pb	Hg	As	Cd	Cr	Pb	Hg
Groundwater Grab Samples																																
3H2O-1	06/14/16	----	----	----	ND<100	ND<1	ND<1	ND<1	ND<3	**190x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P1-H2O	03/04/16	----	3	----	ND<100	----	----	----	----	**300x**	ND<250	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
P2-H2O	03/04/16	----	7	----	----	----	----	----	----	----	----	----	----	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
P3-H2O	03/04/16	----	7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
P4-H2O	03/04/16	----	7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
B8-H2O	01/03/08	----	7.00	----	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	ND<54	ND<270	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND	ND	ND<0.1	----	----	----	----	----	----	----	----	----	----
B8-H2O-f	01/03/08	----	6.50	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	**6.08**	ND<1	**1.23**	ND<1	ND<0.2
SP-01-H2O	10/26/07	----	7.5	----	----	----	----	----	----	----	----	**1,500,000**	**37,000**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-04-H2O	10/26/07	----	6.0	----	**370**	ND<1	ND<1	**3**	**15**	----	----	**3,700**	**2,900**	ND<1	**1.9**	**18**	ND<1	**3.8**	ND<1	ND	----	----	----	----	----	----	----	----	----	----	----	----
SP-05-H2O	10/26/07	----	8.0	----	**250**	ND<1	ND<1	**2**	**10**	----	----	**410**	ND<360	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-06-H2O	10/26/07	----	8.5	----	ND<100	ND<1	ND<1	ND<1	**4**	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-07-H2O	10/26/07	----	3.0	----	**1,200**	**17**	**6**	**6**	**30**	----	----	**740x**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-08-H2O	10/26/07	----	3.5	----	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	**67**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SP-09-H2O	10/26/07	----	3.5	----	ND<100	ND<1	ND<1	ND<1	ND<3	----	----	**76**	ND<250	ND<1	ND<1	ND<1	ND<1	ND<0.2	ND<1	ND<1	----	----	----	----	----	----	----	----	----	----	----	----
SP-10-H2O	10/26/07	----	3.5	----	ND<200*	----	----	----	----	----	----	**150**	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Cleanup Levels for Ground Water					**800/1,000[1]**	**5**	**1,000**	**700**	**1,000**	**500**	**500**	**500**	**500**	**5**	**5**	----	----	**0.2**	----	**Analyte Specific**	**Analyte Specific**	**Analyte Specific**	**5**	**5**	**50**	**15**	**2**	**5**	**5**	**50**	**15**	**2**
MTCA Method B Cleanup Levels for Ground Water[2]					----	----	----	----	----	----	----	----	----	----	----	**16**	**160**	----	**400**	----	----	----	----	----	----	----	----	----	----	----	----	----

Notes:

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

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

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

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

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

PCE (tetrachloroethene), TCE (trichloroethene), cis-1,2-DCE (cis-1,2-dichloroethene), trans-1,2-DCE (trans-1,2-dichloroethene), VC (vinyl chloride), 1,1-DCE (1,1-dichloroethene), EDC (1,2-dichloroethane), CE = Chloroethane, EDC = 1,2-Dichloroethane, 1,3-DB = 1,3-Dichlorobenzene, DCA = 1,1-dichloroethane, Naph = Naphthalene, and other HVOCs (halogenated volatile organic compounds) determined using EPA Test Method 8260C.

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

Dissolved Metals (As = arsenic, Cd = cadmium, Cr = chromium, Pb = lead, Hg = mercury) determined using EPA Method 200.8 and 1631E.

ND = Not detected above the noted analytical detection limit.

---- = Not analyzed or not applicable.

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

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Cleanup Levels for Ground Water (WAC 173-340-900, Table 720-1). MTCA Method B Standard Formula Values for Ground Water from Ecology's Cleanup Level and Risk Calculation (CLARC) database.

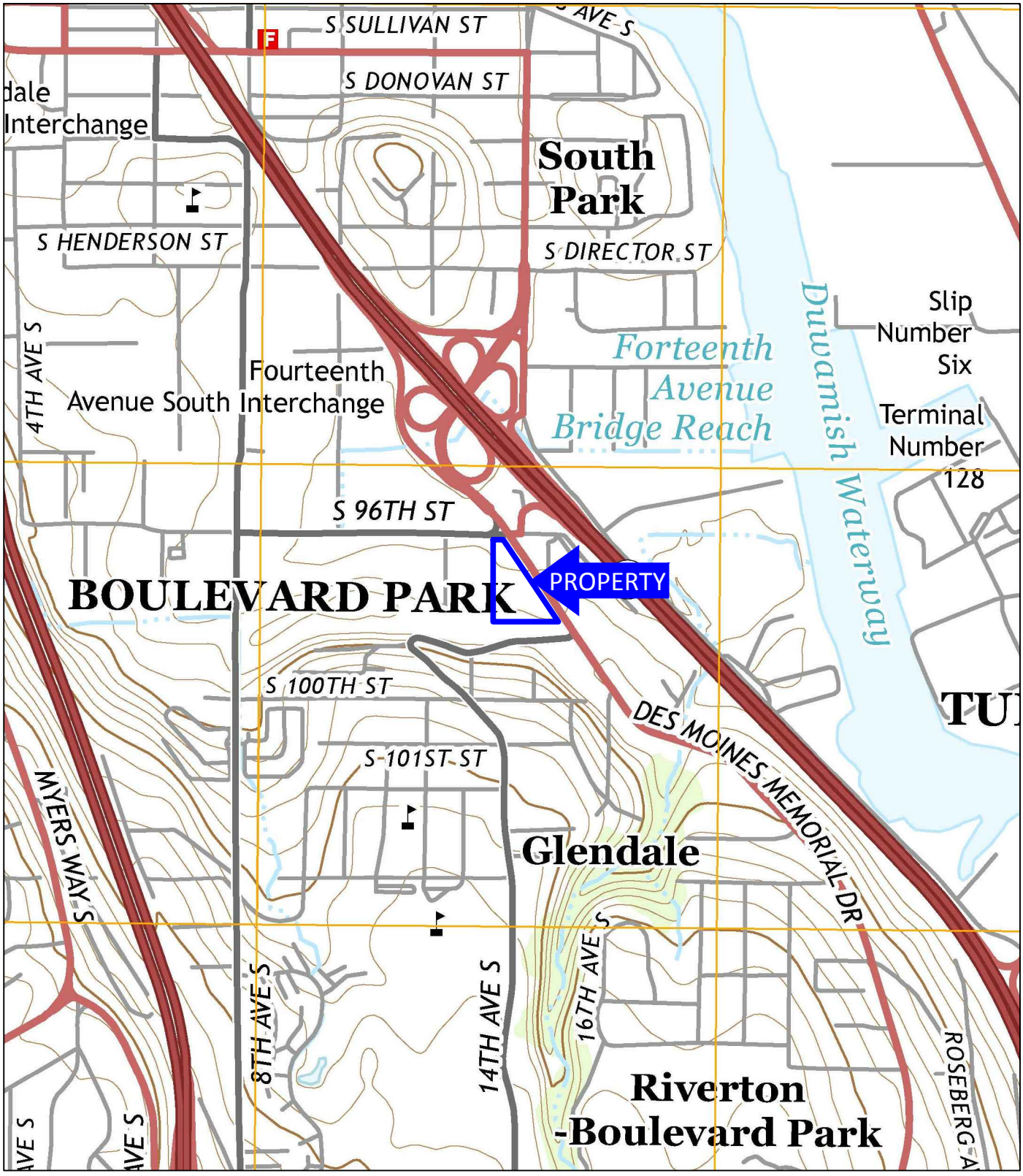
[1] The higher cleanup level is applicable if no benzene is detected in groundwater.

[2] No MTCA Method A Cleanup Level has been established. Therefore, the MTCA Method B Non-Carcinogenic Standard Formula Value is listed for reference.

*TPH results based on Ecology's petroleum hydrocarbon qualitative test method NWTPH-HCID.

Bold results indicated concentrations above laboratory detection limits.

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



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

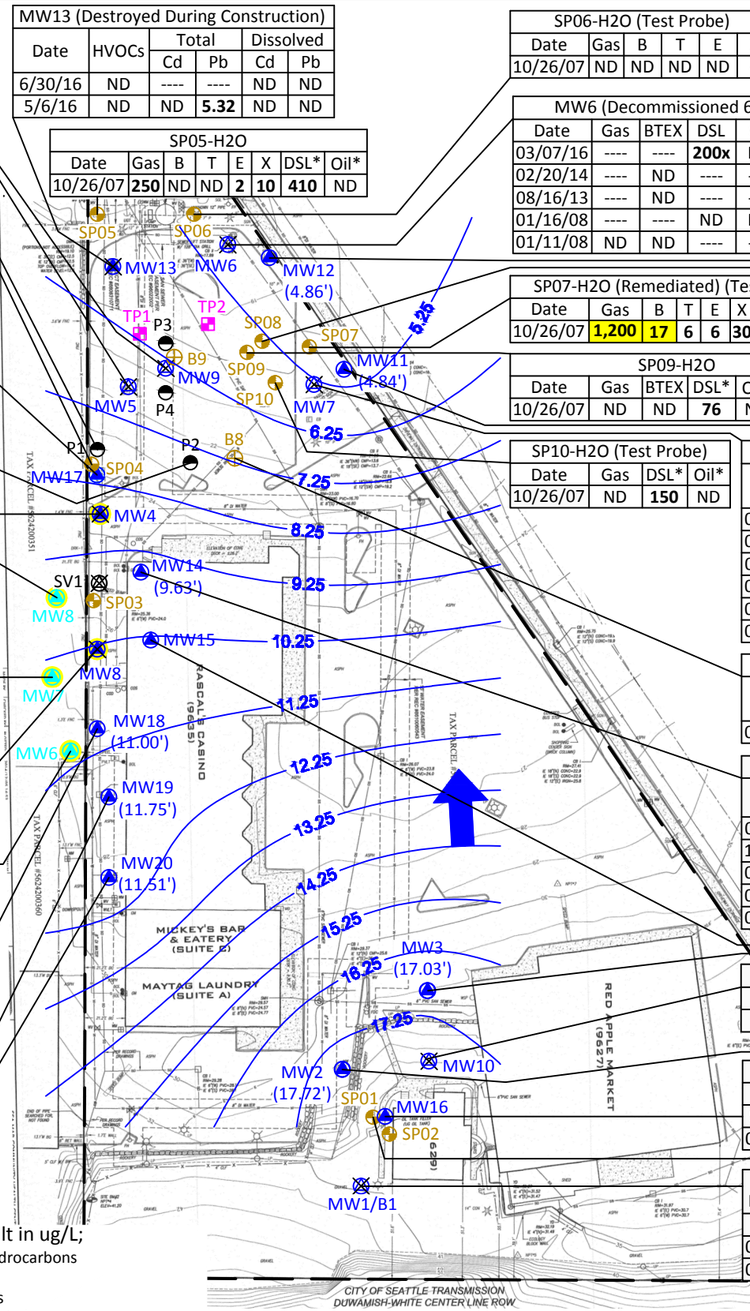
Approximate Scale: 1"=1000'

0 500 1000 2000

N

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

Sea Mar Community Health Center		Figure 1
RGI Project Number 2016-023A	Property Vicinity Map	Date Drawn: 05/2017
Address: 9635 Des Moines Memorial Drive South, Seattle, Washington 98108		



MW5 (Decommissioned 6/2016)					
Date	Gas	BTEX	DSL	Oil	HVOCs
03/07/16	----	----	----	----	ND
05/22/14	----	----	----	----	ND
02/20/14	----	----	----	----	ND
05/16/13	----	----	----	----	ND
01/11/08	ND	ND	ND*	ND*	----

MW9 (Remediated) (Decommissioned 6/2016)								
Date	Gas	DSL	Oil	HVOCs	Dissolved MTCA 5 Metals			
					Cd	Cr	Pb	Hg
03/07/16	ND	**730x**	ND	ND	ND	ND	ND	ND

SP04-H2O (Remediated) (Test Probe)											
Date	Gas	B	T	E	X	DSL*	Oil*	TCE	VC	cis-1,2-DCE	Other HVOCs
10/26/07	**370**	**ND**	ND	**3**	**15**	**3,700**	**2,900**	**1.9**	**3.8**	**18**	ND

P1-H2O (Test Probe)				
Date	Gas	DSL	Oil	HVOCs
03/04/16	ND	**300x**	ND	ND

MW4 (Damaged During Construction)									
Date	Gas	BTEX	DSL	Oil	TCE	VC	cis-1,2-DCE	Other VOCs	Total Metals
06/30/16	----	----	ND	ND	**3.9**	**4.9**	**16**	ND	----
03/07/16	----	----	**52x**	ND	ND	**4.6**	**7.4**	----	----
08/21/14	----	----	----	----	**7.02**	**6.43**	**31.9**	ND	----
05/22/14	----	----	----	----	**5.35**	**7.26**	**16.8**	ND	----
02/14/14	----	----	----	----	**5.31**	ND	**15.3**	ND	----
08/16/13	----	----	----	----	**9.05**	**14.6**	**38**	ND	----
01/16/08	----	----	----	----	**140**	**9.8**	**63**	**EDC=1.0 EC =7.3 1,1-DCA=1.6**	**As=2.88 Cr=2.44 Pb=8.98**
01/11/08	ND	ND	ND*	ND*	**150ve**	**12**	**70**	**EDC=1.1**	----

MW17						
Date	Gas	BTEX	DSL	Oil	Naph	HVOCs
12/15/16	----	----	ND	ND	ND	ND
09/12/16	----	----	**76x**	**310**	----	ND
07/14/16	ND	ND	**230x**	ND	----	ND

P2-H2O (Test Probe)	
Date	HVOCs
03/04/16	ND

BK-MW8 (On Adjoining Property)					
Date	PCE	TCE	cis-1,2 DCE	VC	Other HVOCs
09/30/16	ND	**62**	**8.3**	ND	ND
08/22/14	ND	**615**	**22.1**	ND	**EDC=4.87 1,1-DCE=1.05**
05/21/14	ND	**558**	**23.1**	ND	ND
02/14/14	ND	**878**	**32.0**	ND	**EDC=7.19 1,1-DCE=1.97**

BK-MW7 (On Adjoining Property)					
Date	PCE	TCE	cis-1,2 DCE	VC	Other HVOCs
09/30/16	ND	**300**	**50**	**3.3**	**EDC=5.6**
08/22/14	ND	ND	**30.0**	**8.19**	**EDC=1.76**
05/21/14	ND	ND	**143**	**34.5**	**EDC=2.79**
02/14/14	ND	**1.94**	**297**	**95.8**	**EDC=15.7**

BK-MW6 (On Adjoining Property)					
Date	PCE	TCE	cis-1,2 DCE	VC	1,1-DCE
09/30/16	ND	**16**	ND	ND	ND
08/22/14	ND	**88.6**	**2.99**	ND	ND
05/21/14	ND	**18.9**	ND	ND	ND
02/20/14	ND	**85**	**2.17**	ND	ND

MW8 (Well Destroyed)					
Date	DSL	Oil	TCE	cis-1,2-DCE	1,1-DCA
06/30/16	**100x**	ND	**33**	**7.0**	**1.7**
03/07/16	**80x**	ND	**20**	**5.5**	**1.9**

MW18									
Date	Gas	BTEX	DSL	Oil	PCE	TCE	cis-1, 2-DCE	1,1-DCE	1,1-DCA	As_d
03/31/17	----	----	ND	ND	ND	**9.1**	1.8	ND	ND	ND
12/15/16	----	----	ND	ND	ND	**1.5**	ND	ND	ND	----
09/12/16	----	----	ND	ND	ND	**2.1**	ND	ND	ND	----
07/14/16	ND	ND	**63x**	ND	ND	**130**	**15**	**1.9**	ND	----

MW19								
Date	DSL	Oil	TCE	cis-1, 2-DCE	1,1-DCE	1,1-DCA	As_d
03/31/17	ND	ND	ND	ND	**1.6**	ND	ND
12/15/16	ND	ND	ND	ND	ND	**2.2**	----
09/12/16	**81x**	ND	ND	ND	ND	**1.6**	----

MW20				
Date	DSL	Oil	HVOCs	As_d
03/31/17	ND	ND	ND	**3.36**
12/15/16	ND	ND	ND	----
09/12/16	ND	ND	ND	----

MW13 (Destroyed During Construction)					
Date	HVOCs	Total		Dissolved	
		Cd	Pb	Cd	Pb
6/30/16	ND	----	----	ND	ND
5/6/16	ND	ND	**5.32**	ND	ND

SP05-H2O							
Date	Gas	B	T	E	X	DSL*	Oil*
10/26/07	**250**	ND	ND	**2**	**10**	**410**	ND

SP06-H2O (Test Probe)						
Date	Gas	B	T	E	X	
10/26/07	ND	ND	ND	ND	**4**	

MW6 (Decommissioned 6/2016)					
Date	Gas	BTEX	DSL	Oil	HVOCs
03/07/16	----	----	**200x**	ND	----
02/20/14	----	ND	----	----	ND
08/16/13	----	ND	----	----	ND
01/16/08	----	----	ND	ND	----
01/11/08	ND	ND	----	----	ND

SP07-H2O (Remediated) (Test Probe)								
Date	Gas	B	T	E	X	DSL*	Oil*	
10/26/07	**1,200**	**17**	**6**	**6**	**30**	**740**	ND	

SP09-H2O					
Date	Gas	BTEX	DSL*	Oil*	HVOCs
10/26/07	ND	ND	**76**	ND	ND

SP10-H2O (Test Probe)			
Date	Gas	DSL*	Oil*
10/26/07	ND	**150**	ND

MW12					
Date	Gas	BTEX	DSL	Oil	As_d
03/31/17	ND	ND	ND	ND	**1.28**
12/15/16	ND	ND	ND	ND	----
09/12/16	ND	ND	**80x**	ND	----
6/30/16	ND	ND	**220x**	ND	----
05/06/16	ND	ND	**200x**	ND	----

SP08-H2O (Test Probe)				
Date	Gas	BTEX	DSL*	Oil*
10/26/07	ND	ND	**67**	ND

MW11 (Damaged During Construction)									
Date	Gas	B	T	E	X	DSL	Oil	As_d
03/31/17	ND	ND	ND	ND	ND	**76x**	ND	ND
12/15/16	ND	ND	ND	ND	ND	**140x**	ND	----
09/12/16	ND	ND	ND	ND	ND	**69x**	ND	----
6/30/16	ND	ND	ND	ND	ND	**190x**	ND	----
05/06/16	ND	**1.7**	ND	ND	ND	**200x**	ND	----

MW7 (Remediated) (Decommissioned 6/2016)													
Date	Gas	B	T	E	X	DSL	Oil	HVOCs	Total MTCA 5 Metals				
									As	Cd	Cr	Pb	Hg
03/07/16	**2,500**	**11**	ND	**3.6**	**3.8**	**1,500x**	ND	ND	----	----	----	----	----
02/20/14	----	----	----	----	----	----	----	ND	----	----	----	----	----
08/16/13	----	----	----	----	----	----	----	ND	----	----	----	----	----
01/25/08	**4,000**	**43**	**20**	**34**	**27**	----	----	----	----	----	----	----	----
01/16/08	**5,500**	**61**	**29**	**46**	**45**	----	----	----	**10.8**	ND	**2.12**	**2.83**	ND
01/11/08	----	----	----	----	----	**890x***	ND*	----	----	----	----	----	----

B8-H2O (Test Probe)										
Date	Gas	BTEX	DSL*	Oil*	HVOCs	Total MTCA 5 Metals				
						As	Cd	Cr	Pb	Hg
01/03/08	ND	ND	ND	ND	ND	**6.08**	ND	**1.23**	ND	ND

MW14		
Date	HVOCs	As_d
03/31/17	ND	**1.31**
12/15/16	ND	----
09/12/16	ND	----
06/30/16	ND	----
05/06/16	ND	----

MW15 (Covered During Construction)	
Date	HVOCs
12/15/16	ND
9/12/16	ND
6/30/16	ND
5/6/16	ND

MW3			
Date	DSL	Oil	As_d
03/31/17	ND	ND	ND
09/12/16	ND	ND	----
01/11/08	ND*	ND*	----

MW10 (Decommissioned 6/2016)		
Date	DSL	Oil
03/07/16	**56x**	ND

MW2			
Date	DSL	Oil	As_d
03/31/17	**140x**	ND	ND
12/15/16	**210x**	ND	----
09/12/16	**200x**	ND	----
06/30/16	**290x**	ND	----
03/07/16	**340x**	ND	----
01/11/08	ND*	ND*	----

MW16		
Date	DSL	Oil
9/12/16	**110x**	ND
07/14/16	**150x**	ND

MW1 (Damaged During Construction)		
Date	DSL	Oil
03/07/16	ND	ND
01/11/08	ND*	ND*

SP01-H2O (Remediated)		
Date	DSL	Oil
10/26/07	**1,500,000**	**37,000**

= Decommissioned well and/or damaged during construction
= Soil vapor sample location by RGI in 2016 (damaged during construction)
= Monitoring well by RGI [MW1 to MW7 in 2008, MW8 to MW20 in 2016]
= Monitoring well by others [BKMW6 to BKMW8, off-site]
= Test probe by RGI in 2016 [P1 to P4]
= Test probe by RGI in 2008 [B1 to B9]
= Test probe by RGI in 2007 [SP-01 to SP-10]
= Test pit by RGI, July 2016
= Stormwater catch basin
= Retaining wall
= Site boundary

= Groundwater Analytical Laboratory Result in ug/L;
Gas/DSL/Oil = Gasoline/diesel/oil total petroleum hydrocarbons
BTEX = Benzene, toluene, ethylbenzene, xylenes
(H)VOCs = (Halogenated) Volatile organic compounds
As = Arsenic (As_d indicates dissolved arsenic), Cd = Cadmium, Cr = Chromium, Pb = Lead, Hg = Mercury
Naph = Naphthalenes
PCE/TCE/VC/cis-1,2-DCE = tetrachloroethene, trichloroethene, vinyl chloride, cis-1,2-dichloroethene
EDC = 1,2-dichloroethane, 1,1-DCA = 1,1-dichloroethane, EC = Chloroethane
ND = Not detected above laboratory detection limits
---- = Not analyzed
Bold and yellow highlighted results exceed MTCA Cleanup Level.
*With silica gel cleanup

—21— = Groundwater contours generated using Surfer Software. Contours based on March 31, 2017 measurements.
= Groundwater flow direction based on March 31, 2017 measurements.

Approximate Scale: 1"=80'
0 40 80 160
N

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

Sea Mar Community Health Center | Figure 2

RGI Project Number: 2016-023A

Summary of Monitoring Well and Test Probe Groundwater Data

Date Drawn: 05/2017

Address: 9635 Des Moines Memorial Drive South, Seattle, Washington 98108

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

April 10, 2017

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

Dear Ms Jordan:

Included are the results from the testing of material submitted on March 31, 2017 from the 2016-023A, F&BI 703552 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
TRG0410R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 31, 2017 by Friedman & Bruya, Inc. from the The Riley Group 2016-023A, F&BI 703552 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	The Riley Group
703552 -01	MW2
703552 -02	MW3
703552 -03	MW11
703552 -04	MW12
703552 -05	MW14
703552 -06	MW18
703552 -07	MW19
703552 -08	MW20

All quality control requirements were acceptable.

Date of Report: 04/10/17
Date Received: 03/31/17
Project: 2016-023A, F&BI 703552
Date Extracted: 04/03/17
Date Analyzed: 04/03/17

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)
MW11 703552-03	<1	<1	<1	<3	<100	90
MW12 703552-04	<1	<1	<1	<3	<100	90
Method Blank 07-627 MB	<1	<1	<1	<3	<100	93

Date of Report: 04/10/17
Date Received: 03/31/17
Project: 2016-023A, F&BI 703552
Date Extracted: 04/03/17
Date Analyzed: 04/03/17

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)
MW2 703552-01	140 x	<270	102
MW3 703552-02	<54	<270	98
MW11 703552-03	76 x	<280	89
MW12 703552-04	<60	<300	95
MW18 703552-06	<53	<270	92
MW19 703552-07	<54	<270	98
MW20 703552-08	<54	<270	96
Method Blank 07-689 MB	<50	<250	82

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW2	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-01
Date Analyzed:	04/07/17	Data File:	703552-01.037
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

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

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW3	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-02
Date Analyzed:	04/07/17	Data File:	703552-02.040
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

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

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW11	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-03
Date Analyzed:	04/07/17	Data File:	703552-03.050
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

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

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW12	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-04
Date Analyzed:	04/07/17	Data File:	703552-04.051
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.28

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW14	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-05
Date Analyzed:	04/07/17	Data File:	703552-05.052
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.31

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW18	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-06
Date Analyzed:	04/07/17	Data File:	703552-06.053
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

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

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW19	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-07
Date Analyzed:	04/07/17	Data File:	703552-07.054
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

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

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW20	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	703552-08
Date Analyzed:	04/07/17	Data File:	703552-08.055
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	3.36

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	2016-023A, F&BI 703552
Date Extracted:	04/06/17	Lab ID:	I7-183 mb
Date Analyzed:	04/07/17	Data File:	I7-183 mb.026
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

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

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW14	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/03/17	Lab ID:	703552-05
Date Analyzed:	04/03/17	Data File:	030412.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW18	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/03/17	Lab ID:	703552-06
Date Analyzed:	04/03/17	Data File:	030413.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.8
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	9.1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW19	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/03/17	Lab ID:	703552-07
Date Analyzed:	04/03/17	Data File:	030414.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	1.6
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW20	Client:	The Riley Group
Date Received:	03/31/17	Project:	2016-023A, F&BI 703552
Date Extracted:	04/03/17	Lab ID:	703552-08
Date Analyzed:	04/03/17	Data File:	030415.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	2016-023A, F&BI 703552
Date Extracted:	04/03/17	Lab ID:	07-668 mb
Date Analyzed:	04/03/17	Data File:	030408.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	101	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 04/10/17
Date Received: 03/31/17
Project: 2016-023A, F&BI 703552

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: 703516-01 (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	110	65-118
Toluene	ug/L (ppb)	50	103	72-122
Ethylbenzene	ug/L (ppb)	50	99	73-126
Xylenes	ug/L (ppb)	150	98	74-118
Gasoline	ug/L (ppb)	1,000	95	69-134

Date of Report: 04/10/17
Date Received: 03/31/17
Project: 2016-023A, F&BI 703552

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	83	88	63-142	6

Date of Report: 04/10/17
Date Received: 03/31/17
Project: 2016-023A, F&BI 703552

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 703552-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	96	99	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	96	85-115

Date of Report: 04/10/17
Date Received: 03/31/17
Project: 2016-023A, F&BI 703552

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

Laboratory Code: 703553-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	106	36-166
Chloroethane	ug/L (ppb)	50	<1	117	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	111	60-136
Methylene chloride	ug/L (ppb)	50	<5	103	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	106	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	101	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	100	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	98	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	100	60-146
Trichloroethene	ug/L (ppb)	50	<1	96	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	93	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	107	109	50-154	2
Chloroethane	ug/L (ppb)	50	113	116	58-146	3
1,1-Dichloroethene	ug/L (ppb)	50	117	117	67-136	0
Methylene chloride	ug/L (ppb)	50	107	108	39-148	1
trans-1,2-Dichloroethene	ug/L (ppb)	50	111	112	68-128	1
1,1-Dichloroethane	ug/L (ppb)	50	106	108	79-121	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	104	107	80-123	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	102	105	73-132	3
1,1,1-Trichloroethane	ug/L (ppb)	50	104	106	83-130	2
Trichloroethene	ug/L (ppb)	50	100	102	80-120	2
Tetrachloroethene	ug/L (ppb)	50	98	100	76-121	2

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.

703552

SAMPLE CHAIN OF CUSTODY

ME 03/31/17 AIS/AOY/VW3

Page # 1 of 1

Report To Anna Jordan
Company RGI
Address 17522 Bothell Way NE
City, State, ZIP Bothell WA 98011
Phone 425-415-0551 Email ajordan@riley-group.com

SAMPLERS (signature) [signature]

PROJECT NAME: 2016-023A

PO #:

REMARKS:

INVOICE TO:

TURNAROUND TIME
- ☑ Standard Turnaround
- ☐ RUSH
- Rush charges authorized by:

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	HVOCs	Metals Dissolved As			Notes
MW2	01 A-B	3/31/17	1000	H2O	2		X							X			
MW3	02		0915		2		X							X			
MW11	03 A-E		1055		5		X	X	X				X	X			no HVOC MW11
MW12	04		1130		5		X	X	X				X	X			no HVOC MW12
MW14	05 A-D		1305		4		X						X	X			no Dx MW14
MW18	06 A-E		1355		5		X						X	X			
MW19	07		1430		5		X						X	X			
MW20	08		1510		5		X						X	X			

ANALYSES REQUESTED

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Amelia Oates	RGI	3/31/17	1639
Received by: [signature]	Jon Shmagin	FB&I	"	"
Relinquished by:				
Received by:				

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