

PERFORMANCE GROUNDWATER MONITORING REPORT – JULY 2020 SAMPLING EVENT

SeaTac Development Site (MasterPark Lot C Property)

Prepared for:

Dr. Jerome Cruz

Washington Department of Ecology

September 2020



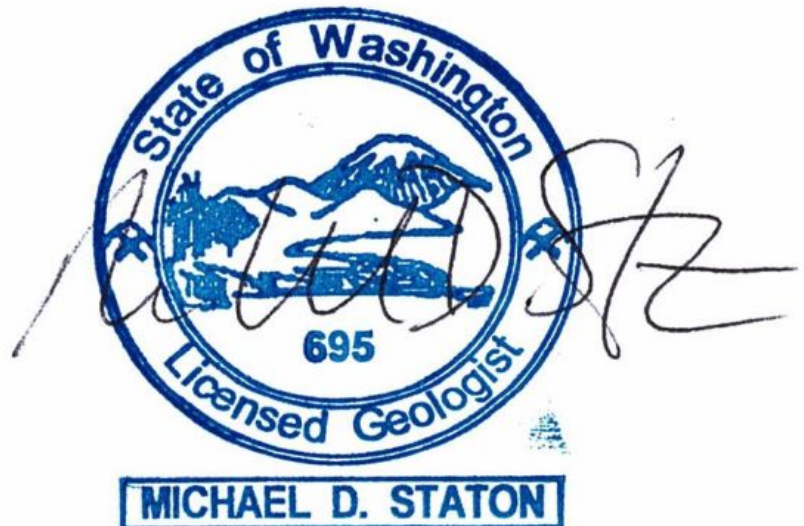
Performance Groundwater Monitoring Report - July 2020 Sampling Event

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This document has been prepared by SLR International Corporation (SLR). The material and data in this report were prepared under the supervision and direction of the undersigned.



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ACRONYMS

µg/L	micrograms per liter
mg/L	milligrams per liter
Apex	Apex Laboratories, Inc.
BTEX	benzene, toluene, ethylbenzene, and xylenes
DO	dissolved oxygen
DRO	diesel range organics
EDB	1,2-dibromoethane
Golder	Golder Associates, Inc.
GRO	gasoline range organics
IAS/SVE	in-situ air sparging and soil vapor extraction
MDL	method detection limit
MRL	method reporting limit
MSL	mean sea level
O&M	operation and maintenance
ppm-v	parts per million by volume
PSCAA	Puget Sound Clean Air Agency
QA	quality assurance
QC	quality control
SLR	SLR International Corporation

1. INTRODUCTION

On July 21 and 22, 2020, SLR International Corporation (SLR) conducted a semiannual performance groundwater monitoring event at the SeaTac Development Site (the Site), which is primarily located at 16025 International Boulevard in SeaTac, Washington (the subject property). The location of the subject property, which is occupied by the MasterPark Lot C parking lot, is shown on Figure 1.

From approximately May to July 2013 and December 2013 through July 2017, Golder Associates, Inc. (Golder) operated an in-situ air sparging and soil vapor extraction (IAS/SVE) system at the subject property to remediate the petroleum hydrocarbon-impacted groundwater at the Site. After the deactivation of the IAS/SVE system in July 2017, performance groundwater monitoring events were conducted on a semiannual basis from November 2017 through July 2019 to monitor any changes in the petroleum hydrocarbon concentrations over time. The results of the performance groundwater sampling showed that petroleum hydrocarbon concentrations in the groundwater beneath the northern and northwestern parts of the subject property were still above the MTCA Method A cleanup levels by July 2019. To reduce the remaining petroleum hydrocarbon concentrations in the groundwater, SLR reactivated the IAS/SVE system on September 5, 2019. The system was operated through July 15, 2020, when it was deactivated prior to the July 2020 performance groundwater monitoring event.

The July 2020 groundwater monitoring activities were conducted in accordance with the Compliance Monitoring Plan (Golder, 2011) for the Site, except that turbidity was observed but not measured during purging.

2. 2019 – 2020 IAS/SVE SYSTEM OPERATION

As described above, the results of the performance groundwater monitoring events from November 2017 through July 2019 showed that the groundwater beneath the northwestern and northern parts of the inactive remediation area (at wells MW-07, MW-12, and MW-18) contained petroleum hydrocarbon concentrations greater than the MTCA Method A cleanup levels (SLR, 2019b). To reduce the remaining petroleum hydrocarbon concentrations to below the Method A cleanup levels or to concentrations that will naturally attenuate to the below the cleanup levels within a reasonable timeframe, SLR reactivated the IAS/SVE system on September 5, 2019.

Prior to system reactivation, SLR replaced and repaired several system components and conducted system testing. After conducting SVE system emission testing, SLR modeled the system emissions and requested permission from Ecology to remove the vapor treatment component (a catalytic oxidizer) from the SVE system (SLR, 2019a). After Ecology issued approval (Ecology, 2019), SLR removed the catalytic oxidizer from the system.

The system operations were focused solely on the IAS/SVE points that were located within the northern and northwestern parts of the remediation area. The reactivated system initially operated at IAS points I-1-1, I-1-2, I-2-5, I-2-6, I-3-1, I-3-2, I-3-3, I-3-4, I-4-3, I-4-4, I-4-5, I-4-6, I-5-0, I-5-1, I-5-2, I-5-3, I-5-4, and I-5-5, and at SVE points S-1, S-2, S-8, S-10, S-12, S-13, S-14, S-15, and S-16. The locations of the IAS and SVE points are shown on Figure 2. A few of the operating points were deactivated over time based on low extracted petroleum hydrocarbon concentrations from isolated IAS/SVE point groupings.

After system re-activation, SLR operated and maintained the IAS/SVE system on a weekly basis for the first month of operation and then on an approximate every-other-week basis. During each system operation and maintenance (O&M) event, SLR monitored the applied air pressure and airflow rates of the IAS system, measured the vacuum level and airflow rate of the SVE system, and measured the extracted volatile petroleum hydrocarbon concentration at the emission stack by using a photoionization detector (PID). To verify that the system emission rates were below Puget Sound Clean Air Agency (PSCAA) emission requirements and to correlate the PID readings to analyzed GRO concentrations, SLR collected samples of the extracted vapors at the emission stack on at least a quarterly basis. The samples were submitted to Fremont Analytical, Inc., in Seattle, Washington, for analysis of GRO, BTEX, and naphthalene by EPA Method TO-15. The GRO concentrations in the extracted vapor samples ranged from 2.12 to 67 parts per million by volume (ppm-v). Copies of the laboratory reports are presented in Appendix C.

Based on the measured airflow rate and PID reading (or analyzed GRO concentration) at the SVE system emission stack during each system O&M visit, SLR calculated the mass of volatile petroleum hydrocarbons that were emitted to the atmosphere. The hydrocarbon emission rate ranged from approximately 0.09 to 3.68 pounds per day. After May 12, 2020, the hydrocarbon emission rate was consistently below 1 pound per day. The system emission rates were below the PSCAA emission requirements. From September 5, 2019 through July 15, 2020, the SVE system emitted a total of approximately 372.5 pounds (55.6 gallons) of volatile petroleum hydrocarbons. The airflow rates, PID readings, analyzed GRO concentrations, and the calculated mass of emitted petroleum hydrocarbons are presented in Table 1. Since the heat from the two SVE blowers likely volatilized a portion of the hydrocarbons that entered the blowers, the mass of petroleum hydrocarbons that the IAS/SVE system removed from the subsurface was likely greater than the mass of the emitted hydrocarbons.

The IAS/SVE system was deactivated on July 15, 2020, so that the groundwater conditions could stabilize prior to the performance groundwater sampling event. As discussed below in the Conclusions section, the system has not been reactivated.

3. GROUNDWATER SAMPLING EVENT

On July 21 and 22, 2020, SLR personnel collected groundwater samples from monitoring wells MW-06, MW-07, MW-09, MW-12, MW-13, MW-17A, MW-18, MW-19, MW-20, MW-21, MW-22, and PORT-MW-B. The locations of the groundwater monitoring wells that are included in the performance monitoring program are shown on Figure 3.

Prior to collecting each groundwater sample, the depth to groundwater in the monitoring well was measured by using an electronic water level meter. SLR used the existing dedicated submersible bladder pumping system located at each well to purge approximately 1.0 to 1.8 gallons of water from the well. During the purging of each well, pH, specific conductance, temperature, oxidation-reduction potential, and dissolved oxygen (DO) of the extracted water were measured and the turbidity of the extracted water was observed approximately every three minutes. A groundwater sample was collected from each of the wells following the stabilization of the field parameter measurements. The final field parameter readings prior to sample collection are presented in Table 2. The groundwater samples were collected in the appropriate sample containers provided by Apex Laboratories (Apex) of Tigard, Oregon. The groundwater sampling activities were documented on Low-Flow Groundwater Sampling Field Data Sheets, which are presented in Appendix A.

In accordance with the Compliance Monitoring Plan, the groundwater samples were submitted to Apex for analyses of benzene, toluene, ethylbenzene, total xylenes, naphthalene, and n-hexane by EPA Method 8260D; 1,2-dibromoethane (EDB) by EPA Method 8260D SIM; and gasoline-range organics (GRO) by Ecology Method NWTPH-Gx.

The sampling purge water is stored in properly labeled 55-gallon drums at the subject property. The water will be transported to a licensed facility for off-site treatment and disposal.

3.1 GROUNDWATER MONITORING RESULTS

On July 21, 2020 SLR personnel measured the depths to groundwater in all of the monitoring wells at the Site. The depths to groundwater in the monitoring wells ranged from 44.53 to 106.78 feet below the top of each well casing. The groundwater elevations in the wells ranged from 309.83 to 312.57 above mean sea level (MSL). The depth to groundwater measurements and groundwater elevations in the monitoring wells on July 21, 2020, are presented in Table 3.

Based on the groundwater elevations on July 21, 2020, the general groundwater flow direction beneath the Site area was primarily to the west-southwest. Due to anomalous depth to groundwater measurements, the groundwater elevations in MW-1 and MW-10 were not used to evaluate the groundwater flow direction. MW-1 is screened less than 3 feet below the high seasonal groundwater table and is frequently dry, and MW-10 is screened at depths over 40 feet below the groundwater table. A groundwater elevation contour map of the data collected on July 21, 2020, is presented on Figure 4.

3.2 GROUNDWATER SAMPLE ANALYTICAL RESULTS

The groundwater sample analytical results showed that the samples from wells MW-22 and MW-13 contained GRO concentrations (4.38 and 0.90 milligrams per liter [mg/L], respectively) that exceeded the MTCA Method A cleanup level (0.80 mg/L when benzene is present). The sample from MW-22 also contained a naphthalene concentration (175 micrograms per liter [$\mu\text{g/L}$]) that exceeded the Method A cleanup level (160 $\mu\text{g/L}$). The samples from MW-22 and MW-13 did not contain any other analyte concentrations that exceeded the cleanup levels, the method reporting limits (MRLs), or the method detection limits (MDLs); however, the MDL for 1,2-dibromomethane (EDB; 0.02 $\mu\text{g/L}$) from the MW-13 sample exceeded the Method A cleanup level (0.01 $\mu\text{g/L}$). The sample from MW-07 did not contain any analyte concentrations that exceeded the cleanup levels, MRLs, or MDLs, however, the GRO concentration (0.80 mg/L) equaled the Method A cleanup level. The samples from wells MW-06, MW-09, MW-12, MW-17A, MW-18, MW-19, MW-20, MW-21, and PORT-MW-B did not contain any detected analyte concentrations. The groundwater sample analytical results from the July 2020 sampling event are presented in Table 2, and the GRO and benzene concentrations are presented on Figure 3. The groundwater sample analytical results from the July 2020 sampling event, as well as from the previous groundwater sampling events, are presented in data tables and on trend plots in Appendix B. The laboratory report from the July 2020 sampling event is included in Appendix C.

4. DATA QUALITY ASSURANCE AND VALIDATION

Based on the results of a data validation review, the groundwater sample analytical data were acceptable without any data qualifications. The laboratory did not report any data qualifiers for the results. The analytical results for the equipment blank and trip blank samples did not contain any analyte concentrations above the MRLs or MDLs, and no data qualifiers were applied to those results. The analytical results of the duplicate sample (labelled MW-32-0720) collected from well MW-22 were within an acceptable range.

5. CONCLUSIONS

On July 21 and 22, 2020, SLR conducted a semiannual performance groundwater monitoring event at the SeaTac Development Site. After reactivating the IAS/SVE system in September 2019, the objective of the performance groundwater sampling program has been to evaluate the performance of the system operations. Performance groundwater sampling events were conducted in January 2020 (SLR, 2020) and in July 2020.

The groundwater sample analytical results from the January and July 2020 sampling events showed that the IAS/SVE system operations have reduced the petroleum hydrocarbon concentrations beneath the subject property to below the MTCA Method A cleanup levels, except for a GRO concentration (0.90 mg/L) at MW-13 in July 2020 that slightly exceeded the Method A cleanup level. The July 2020 sample from MW-07 contained a GRO concentration that equaled the Method A cleanup level. Tables and trend graphs that show GRO and benzene concentrations over time, as well as DRO concentrations over time, are presented in Appendix B.

The IAS/SVE system was deactivated on July 15, 2020, so that the groundwater conditions could stabilize prior to the performance groundwater sampling event. Based on the results of the January and July 2020 performance groundwater sampling events, SLR believes that the IAS/SVE system has reduced the petroleum hydrocarbon concentrations beneath the SeaTac Development Site to levels that will naturally attenuate to below the MTCA Method A cleanup levels within a reasonable timeframe. Therefore, SLR recommends that the IAS/SVE system is deactivated and that the confirmational groundwater monitoring program should commence.

6. REFERENCES

- Golder Associates, Inc. 2011. *Attachment E, Compliance Monitoring Plan, Sea-Tac Development Site, SeaTac, Washington*. November 2.
- SLR International Corporation. 2019b. *Performance Groundwater Monitoring Report – July 2019 Sampling Event, SeaTac Development Site (MasterPark Lot C Property)*. October.
- SLR International Corporation. 2019a. *Request to Remove Vapor Treatment from AS/SVE System, SeaTac Development Site (MasterPark Lot C), SeaTac, Washington*. August 15.
- SLR International Corporation. 2020. *Performance Groundwater Monitoring Report – January 2020 Sampling Event, SeaTac Development Site (MasterPark Lot C Property)*. March.
- Washington Department of Ecology. 2019. Email from Jerome Cruz of Ecology to Mike Staton of SLR re: SeaTac Development Air Emission Rate Modeling and Request to Remove Vapor Treatment System. September 3.

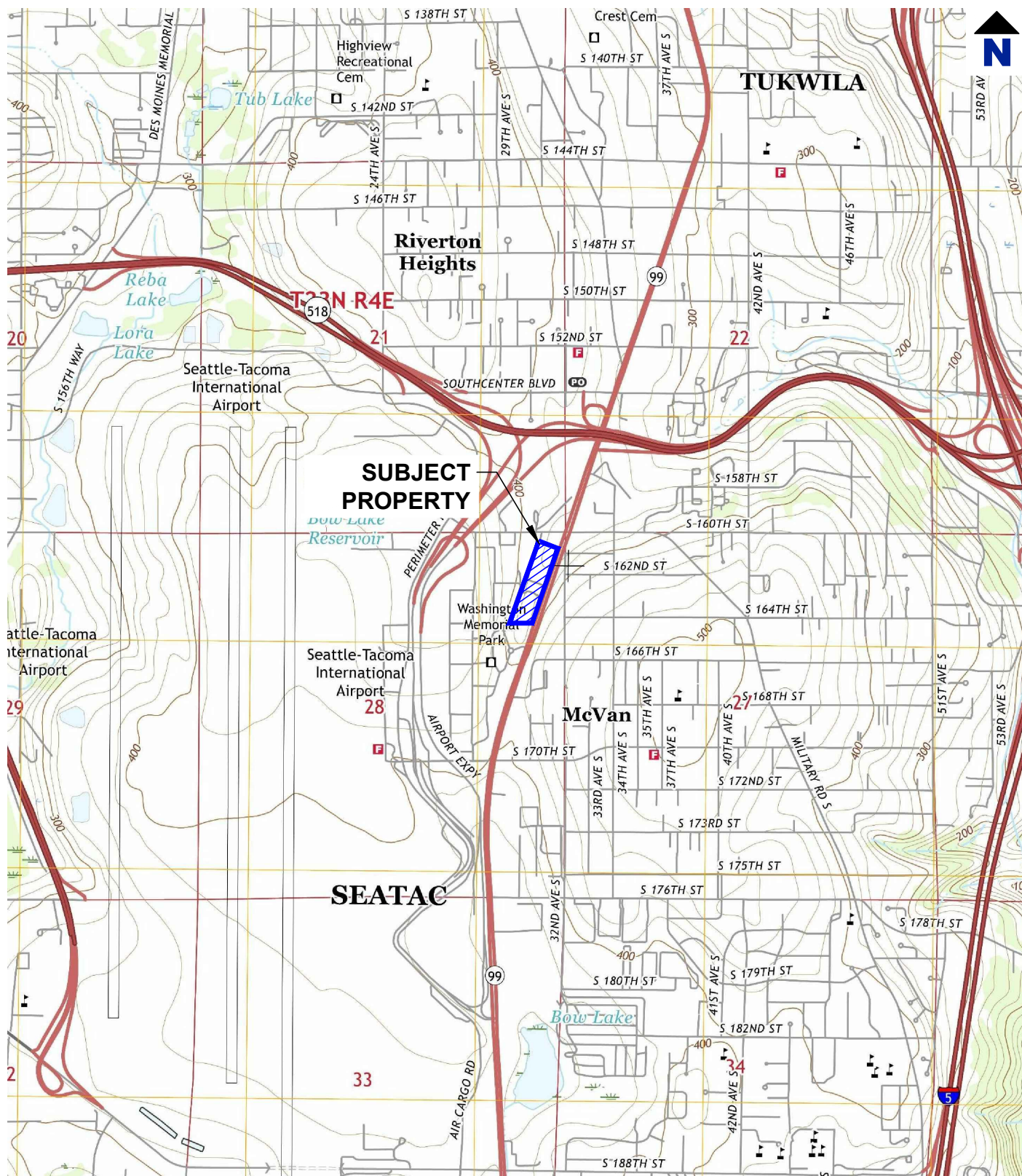
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FIGURES

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REFERENCED FROM :
USGS 7.5 MINUTE QUADRANGLE DES MOINES, 2017

0 2000' 4000'

SEATAC DEVELOPMENT SITE
16025 INTERNATIONAL BLVD
SEATAC, WASHINGTON

Drawing

SUBJECT PROPERTY LOCATION MAP

Date September 19, 2019

Scale AS SHOWN

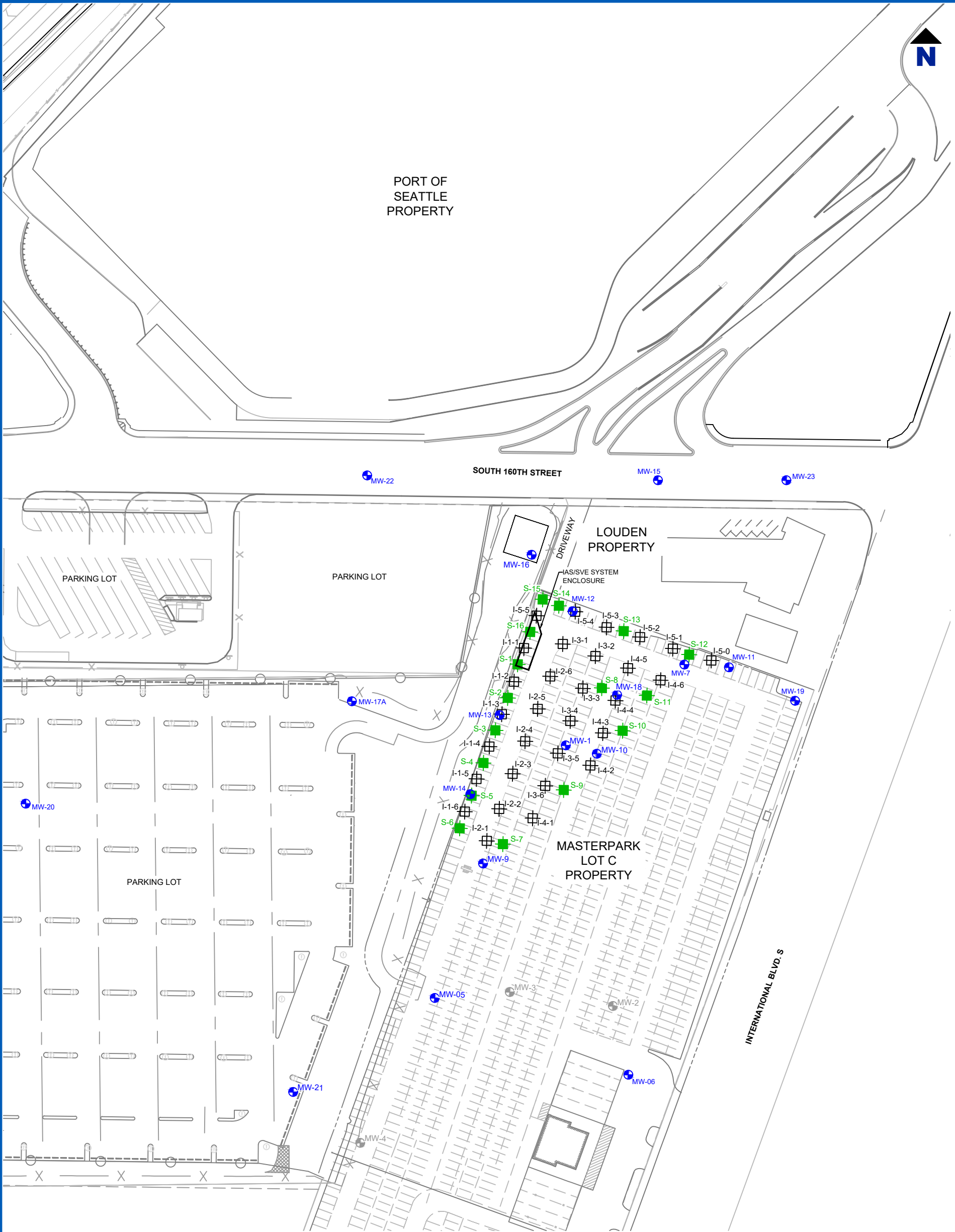
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NOTES

1. BASEMAP BASED ON IAS AND SVE PIPING LAYOUT FIGURE (12/02/15) AND GROUNDWATER MONITORING LOCATIONS MAP (05/01/19) PRODUCED BY GOLDER ASSOCIATES, INC.

LEGEND

- S-10 SOIL VAPOR EXTRACTION POINT LOCATION AND DESIGNATION
- I-4-3 AIR SPARGING POINT LOCATION AND DESIGNATION
- MW-05 SITE MONITORING WELL LOCATION AND DESIGNATION
- MW-04 ABANDONED MONITORING WELL LOCATION AND DESIGNATION
- X FENCE

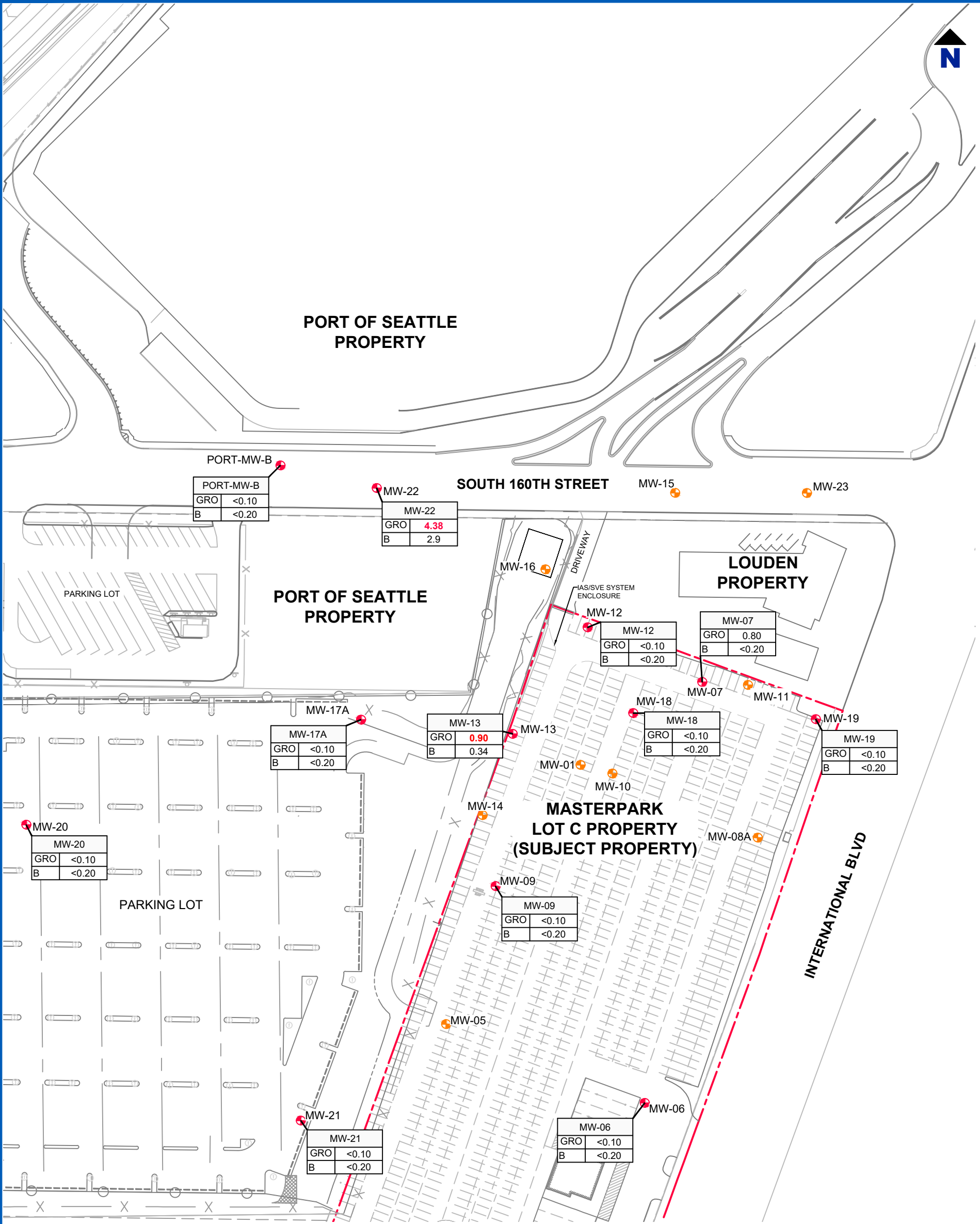


SEATAC DEVELOPMENT SITE
SEATAC, WASHINGTON

Drawing
LOCATIONS OF IAS AND SVE POINTS

Date	August 25, 2020	Scale	AS SHOWN	Fig. No.
File Name	01-02	Project No.	101.02207.00001	2

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NOTES

1. BASE MAP BASED ON IAS AND SVE PIPING LAYOUT FIGURE (12/02/15) AND GROUNDWATER MONITORING LOCATIONS MAP (05/01/19) PRODUCED BY GOLDER ASSOCIATES, INC.
2. CONCENTRATIONS IN BOLD AND RED EXCEEDED THE MTCA METHOD A GROUNDWATER CLEANUP LEVEL.
3. mg/L = MILLIGRAMS PER LITER
4. µg/L = MICROGRAMS PER LITER

LEGEND

- MW-14 SITE MONITORING WELL LOCATION AND DESIGNATION - GROUNDWATER ELEVATIONS MEASURED
- MW-09 SITE MONITORING WELL LOCATION AND DESIGNATION - PERFORMANCE MONITORING WELL
- SUBJECT PROPERTY LINE
- FENCE

		MW-18			
GASOLINE-RANGE ORGANICS	GRO		4.38	SAMPLE LOCATION	ANALYTICAL RESULT IN mg/L
	B		2.9		
BENZENE					ANALYTICAL RESULT IN µg/L

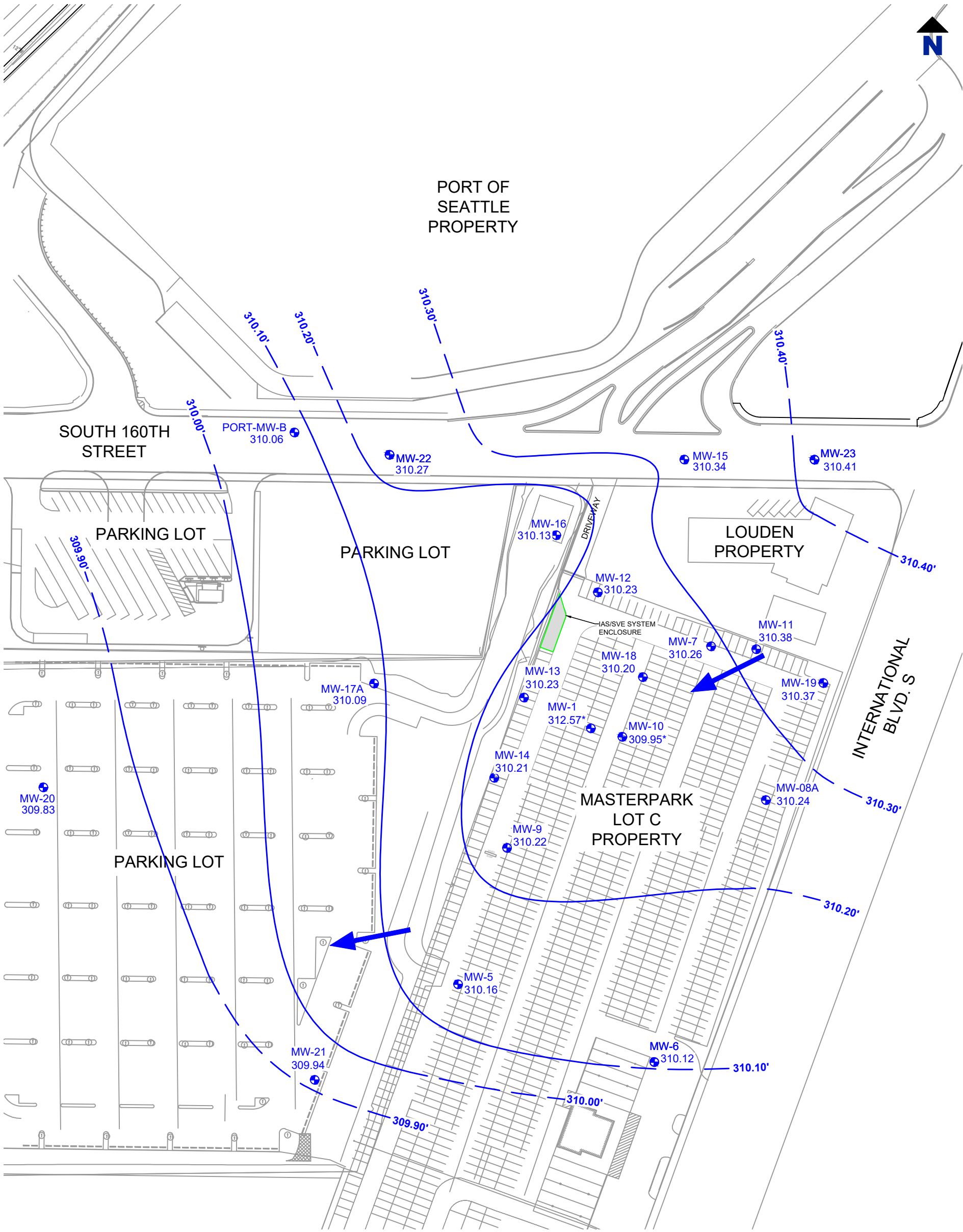


SEATAC DEVELOPMENT SITE
SEATAC, WASHINGTON

Drawing
GRO AND BENZENE CONCENTRATIONS IN
GROUNDWATER SAMPLES - JULY 2020

Date	August 25, 2020	Scale	AS SHOWN	Fig. No.	3
File Name	01-03	Project No.	101.02207.00001		

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1. BASEMAP BASED ON IAS AND SVE PIPING LAYOUT FIGURE (12/02/15) AND GROUNDWATER MONITORING LOCATIONS MAP (05/01/19) PRODUCED BY GOLDER ASSOCIATES, INC.
2. * = DUE TO AN ANOMALOUS DEPTH TO GROUNDWATER MEASUREMENT, THE GROUDWATER ELEVATION WAS NOT USED FOR CONTOURING.

LEGEND

- MW-6  SITE MONITORING WELL LOCATION AND DESIGNATION
- 310.12 GROUNDWATER SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL) ON JULY 21, 2020
-  310.10' GROUNDWATER SURFACE ELEVATION CONTOUR LINE (FEET ABOVE MEAN SEA LEVEL)
-  GENERAL GROUNDWATER FLOW DIRECTION



SEATAC DEVELOPMENT SITE
SEATAC, WASHINGTON

Drawing
GROUNDWATER ELEVATION CONTOUR MAP -
JULY 21, 2020

Date	August 25, 2020	Scale	AS SHOWN	Fig. No.
File Name	01-04	Project No.	101.02207.00001	

TABLES

Table 1
Mass of Petroleum Hydrocarbon Emissions from IAS/SVE System
2019 and 2020 System Operations
SeaTac Development Site
SeaTac, Washington

Date	Applied Vacuum at Manifold (inches of water)	Airflow at Emission Stack		PID Reading at Stack (ppm-v)	GRO in Extracted Air Sample at Stack (ppm-v)	Hydrocarbons Emitted (lbs/day)	Total Hydrocarbons Emitted (pounds)
		(fpm)	(cfm)				
09/05/19	13	1,820	159	13.1	NS	0.77	--
09/13/19	15	1,780	155	60	NS	0.81	6.32
09/19/19	7.5	1,050	92	46	NS	3.61	19.5
09/25/19	8	1,100	96	46	NS	1.64	35.3
10/04/19	16	1,238	109	50	NS	2.11	52.2
10/18/19	20	1,267	110	25	NS	1.07	74.5
10/31/19	21	1,343	117	24	NS	1.03	88.2
11/15/19	22	1,250	109	21	NS	0.84	102.2
11/25/19	21	1,161	101	21	NS	0.78	110.3
12/05/19	23	1,172	102	28	NS	1.05	119.4
12/09/19	24	1,185	103	165	67	2.67	126.8
12/17/19	22	1,224	107	85	NS	1.44 ^a	143.2
12/23/19	22	1,160	101	30	NS	0.48 ^a	149.0
12/30/19	23	1,158	101	229	NS	3.68 ^a	163.6
01/16/20	23	1,115	97	141	NS	2.18 ^a	213.4
01/27/20	23	1,160	101	124	NS	1.99 ^a	236.3
01/27/20	System deactivated prior to groundwater sampling event. System reactivated on January 30, 2019.						
01/30/20	21	1,100	96	126	NS	1.92 ^a	236.3
02/11/20	23	1,130	99	79	NS	1.24 ^a	255.3
02/28/20	22	1,210	106	71	NS	1.20 ^a	276.0
03/09/20	23	1,210	106	37	2.12	0.09	282.5
03/20/20	25	1,120	98	96	NS	0.22 ^b	284.2
04/02/20	28	725	64	113	NS	0.17 ^b	286.7
04/14/20	26	1,010	88	114	22.1	0.83	292.7
04/24/20	16	1,060	92	97	NS	0.66 ^c	303.4
05/04/20	16	1,064	92	187	NS	1.27 ^c	313.1
05/12/20	17	1,018	89	193	NS	1.27 ^c	323.3
05/24/20	21	1,100	96	70	NS	0.50 ^c	333.9
06/02/20	23	1,104	96	121	NS	0.86 ^c	340.0
06/11/20	23	1,220	107	114	NS	0.90 ^c	347.9
06/24/20	23	1,050	91	96	NS	0.64 ^c	357.9
07/02/20	23	1,108	97	86	18.8	0.71	363.3
07/15/20	24	1,161	101	82	NS	0.71 ^d	372.5
07/15/20	System deactivated prior to groundwater sampling event.						
NOTES:	The air sparging/soil vapor extraction system (IAS/SVE) was reactivated on September 5, 2019. A second air sparging blower was installed after collecting the system performance readings on December 17, 2019. Total pounds emitted were calculated by assuming a linear increase or decrease in emission rates from monitoring date to monitoring date. The airflow rates and PID readings were measured at a port on the 4-inch-diameter SVE system emission stack. The molecular weight (MW) of gasoline = 102.2 grams/mole NS = Not sampled. PID = Photoionization detector readings in parts per million by volume (ppm-v). Extracted air sample = Total petroleum hydrocarbons as gasoline (TPH-G) concentrations in ppm-v (by laboratory) fpm = Feet per minute. cfm = Cubic feet per minute. Equation: Emission rates, lbs/day = cfm x PID (ppm-v) x MW x 1.58x10⁻⁷ x 24 hours/day. Air sample analytical results were used instead of PID readings when available. Reference: USEPA, Office of Underground Storage Tanks, <i>Estimating Air Emissions from Petroleum UST Cleanups</i>, June 1989. ^a Based on a comparison between the analyzed GRO concentration (67 ppm-v) and the PID reading (165 ppm-v) on December 9, 2019, the PID reading was multiplied by 0.41 when calculating the mass of emitted hydrocarbons.						

Table 1
Mass of Petroleum Hydrocarbon Emissions from IAS/SVE System
2019 and 2020 System Operations
SeaTac Development Site
SeaTac, Washington

Date	Applied Vacuum at Manifold (inches of water)	Airflow at Emission Stack		PID Reading at Stack (ppm-v)	GRO in Extracted Air Sample at Stack (ppm-v)	Hydrocarbons Emitted (lbs/day)	Total Hydrocarbons Emitted (pounds)
		(fpm)	(cfm)				
^b Based on a comparison between the analyzed GRO concentration (2.12 ppm-v) and the PID reading (37 ppm-v) on March 9, 2020, the PID reading was multiplied by 0.06 when calculating the mass of emitted hydrocarbons. ^c Based on a comparison between the analyzed GRO concentration (22.1 ppm-v) and the PID reading (114 ppm-v) on April 14, 2020, the PID reading was multiplied by 0.19 when calculating the mass of emitted hydrocarbons. ^d Based on a comparison between the analyzed GRO concentration (18.8 ppm-v) and the PID reading (86 ppm-v) on July 2, 2020, the PID reading was multiplied by 0.22 when calculating the mass of emitted hydrocarbons.							

Table 2
Groundwater Field Parameters and Sample Analytical Data - July 2020
SeaTac Development Site
SeaTac, Washington

Well ID	Date Sampled	Field Parameters							Analytical Data											
		Depth to Groundwater (feet)	pH	Temperature (°C)	Specific Conductance (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	GRO ^a (mg/L)	Benzene ^b (µg/L)	Toluene ^b (µg/L)	Ethylbenzene ^b (µg/L)	Total Xylenes ^b (µg/L)	EDB ^c (µg/L)	N-hexane ^b (µg/L)	Napthalene ^b (µg/L)	DRO ^d (mg/L)	ORO ^d (mg/L)	DRO ^d after Silica Gel Cleanup (mg/L)	ORO ^d after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^e									0.8 ^f /1.0 ^g	5.0	1,000	700	1,000	0.01	480 ^h	160	0.5	0.5	0.5	0.5
MW-06	7/22/2020	59.56	4.52	15.4	258	2.75	131.8	NM	<0.10	<0.20	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-07	7/22/2020	48.43	6.03	16.1	139	0.29	94.0	NM	0.80	<0.20	<1.0	2.2	11.9	<0.01	<2.0	2.92	NA	NA	NA	NA
MW-09	7/22/2020	51.91	5.04	15.4	284	0.68	103.7	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-12	7/22/2020	54.60	6.36	15.2	185	0.24	93.5	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-13	7/22/2020	55.19	5.75	14.4	238	0.99	98.7	NM	0.90	0.34	<1.0	0.74	<1.50	<0.02 ⁱ	5.75	4.6	NA	NA	NA	NA
MW-17A	7/21/2020	84.35	5.35	13.7	168	1.99	96.8	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-18	7/22/2020	50.25	6.80	16.1	355	1.57	98.1	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-19	7/22/2020	46.24	5.72	14.4	222	0.68	98.7	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-20	7/21/2020	106.78	5.82	14.7	196	2.58	93.6	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-21	7/21/2020	102.91	5.18	14.5	187	2.65	106.9	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-22	7/21/2020	83.04	5.60	14.8	208	0.96	91.6	NM	4.38	2.9	<5.0	184	340	<0.01	<10.0	175	NA	NA	NA	NA
MW-22 Duplicate ^j	7/21/2020	-	-	-	-	-	--	--	5.03	3.2	<1.0	178	379	<0.01	<2.0	190	NA	NA	NA	NA
PORT-MW-B	7/21/2020	89.77	5.37	14.5	174	3.15	102.4	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A or B Cleanup Levels.

NM = Turbidity was not measured; however, the purge water from each of the wells was clear (no visible turbidity) at the time of sample collection.

mg/L = Milligrams per liter

µg/L = Micrograms per liter

µmhos/cm = Micromhos per centimeter

NTU = Nephelometric turbidity unit

°C = Degrees Celsius

J = Laboratory estimated value

GRO = Gasoline-range organics

DRO = Diesel-range organics

ORO = Oil-range organics

EDB = 1,2-dibromoethane

NA = Not analyzed

mV = Millivolts

^a Analyzed by Ecology Method NWTPH-Gx.

^b Analyzed by EPA Method 8260C.

^c Analyzed by EPA Method 8260C SIM.

^d Analyzed by Ecology Method NWTPH-Dx.

^e Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^f When benzene is present.

^g When benzene is not present.

^h Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

ⁱ The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

^j Duplicate sample named MW-32-0720 and was collected from MW-22

Table 3
Groundwater Monitoring Data - July 2020
SeaTac Development Site
SeaTac, Washington

Well Number	Top of Casing Elevation ^a (feet)	Approximate Depth of Well Screen (feet bgs)	Date Measured	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-01	361.38	41 to 51	7/21/2020	48.81	312.57
MW-05	364.26	48 to 58	7/21/2020	54.10	310.16
MW-06	369.68	50 to 60	7/21/2020	59.56	310.12
MW-07	358.69	43.5 to 53.5	7/21/2020	48.43	310.26
MW-08A	359.16	44 to 54	7/21/2020	48.92	310.24
MW-09	362.13	47.5 to 57	7/21/2020	51.91	310.22
MW-10	360.18	80 to 90	7/21/2020	50.23	309.95
MW-11	357.53	42 to 57	7/21/2020	47.15	310.38
MW-12	364.83	52 to 67	7/21/2020	54.60	310.23
MW-13	365.42	50 to 65	7/21/2020	55.19	310.23
MW-14	363.76	50 to 65	7/21/2020	53.55	310.21
MW-15	364.67	50 to 65	7/21/2020	54.33	310.34
MW-16	377.63	64 to 74	7/21/2020	67.50	310.13
MW-17A	394.44	80 to 95	7/21/2020	84.35	310.09
MW-18	360.45	47 to 62	7/21/2020	50.25	310.20
MW-19	356.61	43 to 58	7/21/2020	46.24	310.37
MW-20	416.61	103 to 113	7/21/2020	106.78	309.83
MW-21	412.85	95 to 110	7/21/2020	102.91	309.94
MW-22	393.31	80 to 95	7/21/2020	83.04	310.27
MW-23	354.94	42.5 to 57.5	7/21/2020	44.53	310.41
PORT-MW-B	399.83	79 to 99	7/21/2020	89.77	310.06
Notes: NM = Not measured. ^a The top of well casing elevations were surveyed relative to mean seal level.					

APPENDIX A

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEETS

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-06</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-06-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>0</u>	

Date Purged: <u>7/22/20</u>	Start (2400hr): <u>0610</u>	End (2400hr): <u>0628</u>
Date Sampled: <u>7/22/20</u>	Sample Time (2400hr): <u>0628</u>	

Casing Diameter: 2" ☒ 3" ☐ 4" ☐ 5" ☐ 6" ☐ 8" ☐ Other ☐
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>59.52</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>0610</u>	<u>17.02</u>	<u>0.283</u>	<u>0.184</u>	<u>3.30</u>	<u>4.10</u>	<u>151.0</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>0613</u>	<u>15.86</u>	<u>0.247</u>	<u>0.160</u>	<u>3.24</u>	<u>4.15</u>	<u>152.1</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>0616</u>	<u>15.46</u>	<u>0.253</u>	<u>0.165</u>	<u>2.86</u>	<u>4.20</u>	<u>147.4</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>0619</u>	<u>15.46</u>	<u>0.255</u>	<u>0.166</u>	<u>2.78</u>	<u>4.27</u>	<u>144.2</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>0622</u>	<u>15.39</u>	<u>0.257</u>	<u>0.167</u>	<u>2.75</u>	<u>4.39</u>	<u>138.1</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>0625</u>	<u>15.44</u>	<u>0.257</u>	<u>0.167</u>	<u>2.75</u>	<u>4.44</u>	<u>136.0</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>0628</u>	<u>15.43</u>	<u>0.258</u>	<u>0.167</u>	<u>2.75</u>	<u>4.52</u>	<u>131.8</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u> tubing </u> Other: _____ Pump Intake Depth: _____ (feet)	☐ 40mL VOA ☐ mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL _____ ☐ mL amber glass _____ ☐ mL amber glass w/ HCl _____ ☐ mL HDPE _____ ☐ mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u>	Page 1 of 1
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SLR International Corp

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-09</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-09-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>0</u>	

Date Purged: <u>7/22/20</u>	Start (2400hr): <u>0641</u>	End (2400hr): <u>0705</u>
Date Sampled: <u>7/22/20</u>	Sample Time (2400hr): <u>0705</u>	

Casing Diameter: 2" ☒ 3" ☐ 4" ☐ 5" ☐ 6" ☐ 8" ☐ Other ☐
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>51.91</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>0641</u>	<u>17.51</u>	<u>0.314</u>	<u>0.193</u>	<u>7.64</u>	<u>4.51</u>	<u>134.0</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>0644</u>	<u>15.45</u>	<u>0.286</u>	<u>0.146</u>	<u>2.61</u>	<u>4.83</u>	<u>117.3</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>0647</u>	<u>15.26</u>	<u>0.274</u>	<u>0.178</u>	<u>1.30</u>	<u>4.77</u>	<u>115.1</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>0650</u>	<u>15.14</u>	<u>0.280</u>	<u>0.182</u>	<u>0.93</u>	<u>4.84</u>	<u>112.6</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>0653</u>	<u>15.34</u>	<u>0.280</u>	<u>0.182</u>	<u>0.83</u>	<u>4.88</u>	<u>111.3</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>0656</u>	<u>15.51</u>	<u>0.282</u>	<u>0.184</u>	<u>0.75</u>	<u>4.93</u>	<u>109.4</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>0659</u>	<u>15.49</u>	<u>0.284</u>	<u>0.184</u>	<u>0.69</u>	<u>4.96</u>	<u>107.5</u>	<u>clear</u>	<u>clear</u>
<u>1.4</u>	<u>0702</u>	<u>15.49</u>	<u>0.284</u>	<u>0.184</u>	<u>0.67</u>	<u>5.01</u>	<u>105.2</u>	<u>clear</u>	<u>clear</u>
<u>1.6</u>	<u>0705</u>	<u>15.39</u>	<u>0.284</u>	<u>0.185</u>	<u>0.68</u>	<u>5.04</u>	<u>103.7</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: _____ (feet)	_____ 40mL VOA _____ mL HDPE w/ H2SO4 <u>5</u> 40mL VOA w/ HCL _____ _____ mL amber glass _____ _____ mL amber glass w/ HCL _____ _____ mL HDPE _____ _____ mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>Ne</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u> <u>[Signature]</u>	Page 1 of <u>1</u>
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-12</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-12-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>6</u>	

Date Purged: <u>7/22/20</u>	Start (2400hr): <u>0600</u>	End (2400hr): <u>0627</u>
Date Sampled: <u>7/22/20</u>	Sample Time (2400hr): <u>0627</u>	

Casing Diameter: 2" <u>X</u>	3" _____	4" _____	5" _____	6" _____	8" _____	Other _____
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>54.60</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>0600</u>	<u>16.70</u>	<u>0.113</u>	<u>0.074</u>	<u>2.42</u>	<u>6.23</u>	<u>73.1</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>0603</u>	<u>15.26</u>	<u>0.114</u>	<u>0.074</u>	<u>0.60</u>	<u>6.29</u>	<u>76.5</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>0606</u>	<u>15.25</u>	<u>0.125</u>	<u>0.081</u>	<u>0.46</u>	<u>6.10</u>	<u>89.4</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>0609</u>	<u>15.24</u>	<u>0.152</u>	<u>0.099</u>	<u>0.40</u>	<u>6.07</u>	<u>95.1</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>0612</u>	<u>15.20</u>	<u>0.167</u>	<u>0.110</u>	<u>0.35</u>	<u>6.13</u>	<u>95.5</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>0615</u>	<u>15.23</u>	<u>0.173</u>	<u>0.112</u>	<u>0.32</u>	<u>6.20</u>	<u>94.8</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>0618</u>	<u>15.22</u>	<u>0.178</u>	<u>0.116</u>	<u>0.29</u>	<u>6.25</u>	<u>94.4</u>	<u>clear</u>	<u>clear</u>
<u>1.4</u>	<u>0621</u>	<u>15.21</u>	<u>0.181</u>	<u>0.118</u>	<u>0.27</u>	<u>6.28</u>	<u>94.2</u>	<u>clear</u>	<u>clear</u>
<u>1.6</u>	<u>0624</u>	<u>15.22</u>	<u>0.184</u>	<u>0.120</u>	<u>0.25</u>	<u>6.32</u>	<u>93.9</u>	<u>clear</u>	<u>clear</u>
<u>1.8</u>	<u>0627</u>	<u>15.21</u>	<u>0.185</u>	<u>0.121</u>	<u>0.21</u>	<u>6.36</u>	<u>93.5</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump _____ Bailer (disposable) _____ Active Extraction Well Pump _____ Bailer (PVC) _____ Submersible Pump _____ Bailer (Stainless Steel) _____ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: _____ (feet)	_____ 40mL VOA _____ mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL _____ _____ mL amber glass _____ _____ mL amber glass w/ HCL _____ _____ mL HDPE _____ _____ mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>NC</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u> <u>[Signature]</u>	Page 1 of 1
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-13</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-13-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>0</u>	

Date Purged: <u>7/22/20</u>	Start (2400hr): <u>0720</u>	End (2400hr): <u>0730</u>
Date Sampled: <u>7/22/20</u>	Sample Time (2400hr): <u>0730</u>	

Casing Diameter: 2" ☒ 3" ☐ 4" ☐ 5" ☐ 6" ☐ 8" ☐ Other ☐
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = _____	Tubing Volume (gal) = _____
Depth to water (feet) = <u>55.19</u>	Minimum Purge (gal) = _____
Water column height (feet) = _____	Actual Purge (gal) = _____

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>0720</u>	<u>16.91</u>	<u>0.219</u>	<u>0.143</u>	<u>2.71</u>	<u>5.42</u>	<u>103.4</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>0723</u>	<u>14.42</u>	<u>0.242</u>	<u>0.158</u>	<u>1.45</u>	<u>5.67</u>	<u>96.7</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>0726</u>	<u>14.41</u>	<u>0.241</u>	<u>0.157</u>	<u>1.32</u>	<u>5.61</u>	<u>100.7</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>0729</u>	<u>14.39</u>	<u>0.238</u>	<u>0.155</u>	<u>1.18</u>	<u>5.62</u>	<u>100.9</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>0732</u>	<u>14.42</u>	<u>0.239</u>	<u>0.155</u>	<u>1.06</u>	<u>5.67</u>	<u>100.4</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>0735</u>	<u>14.37</u>	<u>0.238</u>	<u>0.155</u>	<u>1.01</u>	<u>5.71</u>	<u>99.5</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>0738</u>	<u>14.38</u>	<u>0.238</u>	<u>0.155</u>	<u>0.99</u>	<u>5.75</u>	<u>98.7</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u> tubing </u> Other: _____ Pump Intake Depth: _____ (feet)	☐ 40mL VOA ☐ _____ mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL ☐ _____ mL amber glass ☐ _____ mL amber glass w/ HCL ☐ _____ mL HDPE ☐ _____ mL HDPE w/ HNO3

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>Atm</u> <u>zwh</u>	Page 1 of 1
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

[illegible]

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-18</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-18-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>6</u>	

Date Purged: <u>7/22/20</u>	Start (2400hr): <u>0849</u>	End (2400hr): <u>0910</u>
Date Sampled: <u>7/22/20</u>	Sample Time (2400hr): <u>0910</u>	

Casing Diameter:	2" <u>X</u>	3" <u> </u>	4" <u> </u>	5" <u> </u>	6" <u> </u>	8" <u> </u>	Other <u> </u>
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()

Total depth (feet) = <u> </u>	Tubing Volume (gal) = <u> </u>
Depth to water (feet) = <u>50.25</u>	Minimum Purge (gal) = <u> </u>
Water column height (feet) = <u> </u>	Actual Purge (gal) = <u> </u>

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>0849</u>	<u>17.27</u>	<u>0.308</u>	<u>0.201</u>	<u>2.11</u>	<u>6.53</u>	<u>84.2</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>0852</u>	<u>16.36</u>	<u>0.361</u>	<u>0.235</u>	<u>1.54</u>	<u>6.53</u>	<u>97.4</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>0855</u>	<u>16.27</u>	<u>0.359</u>	<u>0.233</u>	<u>1.76</u>	<u>6.52</u>	<u>102.0</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>0858</u>	<u>16.18</u>	<u>0.358</u>	<u>0.233</u>	<u>1.73</u>	<u>6.59</u>	<u>102.0</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>0901</u>	<u>16.16</u>	<u>0.356</u>	<u>0.231</u>	<u>1.67</u>	<u>6.69</u>	<u>100.6</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>0904</u>	<u>16.10</u>	<u>0.355</u>	<u>0.231</u>	<u>1.63</u>	<u>6.74</u>	<u>99.4</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>0907</u>	<u>16.12</u>	<u>0.354</u>	<u>0.230</u>	<u>1.60</u>	<u>6.78</u>	<u>99.0</u>	<u>clear</u>	<u>clear</u>
<u>1.4</u>	<u>0910</u>	<u>16.07</u>	<u>0.355</u>	<u>0.231</u>	<u>1.57</u>	<u>6.40</u>	<u>98.1</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: <u> </u> Pump Intake Depth: <u> </u> (feet)	☐ 40mL VOA ☐ mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL <u> </u> ☐ mL amber glass <u> </u> ☐ mL amber glass w/ HCl <u> </u> ☐ mL HDPE <u> </u> ☐ mL HDPE w/ HNO3 <u> </u>

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u> <u>[Signature]</u>	Page 1 of <u>1</u>
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-19</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-19-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>0</u>	

Date Purged: <u>7/22/20</u>	Start (2400hr): <u>0959</u>	End (2400hr): <u>1017</u>
Date Sampled: <u>7/22/20</u>	Sample Time (2400hr): <u>1017</u>	

Casing Diameter:	2" <u>X</u>	3" <u> </u>	4" <u> </u>	5" <u> </u>	6" <u> </u>	8" <u> </u>	Other <u> </u>
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()

Total depth (feet) = <u> </u>	Tubing Volume (gal) = <u> </u>
Depth to water (feet) = <u>46.24</u>	Minimum Purge (gal) = <u> </u>
Water column height (feet) = <u> </u>	Actual Purge (gal) = <u> </u>

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>0959</u>	<u>14.84</u>	<u>0.275</u>	<u>0.178</u>	<u>2.25</u>	<u>6.52</u>	<u>85.6</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>1002</u>	<u>14.40</u>	<u>0.220</u>	<u>0.143</u>	<u>0.42</u>	<u>6.11</u>	<u>96.9</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>1005</u>	<u>14.39</u>	<u>0.221</u>	<u>0.144</u>	<u>0.73</u>	<u>5.86</u>	<u>101.0</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>1008</u>	<u>14.39</u>	<u>0.222</u>	<u>0.144</u>	<u>0.71</u>	<u>5.80</u>	<u>100.8</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>1011</u>	<u>14.39</u>	<u>0.223</u>	<u>0.145</u>	<u>0.70</u>	<u>5.76</u>	<u>99.9</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>1014</u>	<u>14.39</u>	<u>0.223</u>	<u>0.145</u>	<u>0.68</u>	<u>5.74</u>	<u>99.3</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>1017</u>	<u>14.38</u>	<u>0.222</u>	<u>0.145</u>	<u>0.68</u>	<u>5.72</u>	<u>98.7</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: <u> </u> Pump Intake Depth: <u> </u> (feet)	☐ 40mL VOA ☐ mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCl ☐ ☐ mL amber glass ☐ ☐ mL amber glass w/ HCl ☐ ☐ mL HDPE ☐ ☐ mL HDPE w/ HNO3 ☐

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u></u> <u></u>	Page 1 of <u>1</u>
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-20</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-20-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>0</u>	

Date Purged: <u>7/21/20</u>	Start (2400hr): <u>1430</u>	End (2400hr): <u>1454</u>
Date Sampled: <u>7/21/20</u>	Sample Time (2400hr): <u>1454</u>	

Casing Diameter: <u>2" DE</u>	3" <u> </u>	4" <u> </u>	5" <u> </u>	6" <u> </u>	8" <u> </u>	Other <u> </u>
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60) ()

Total depth (feet) = <u>NM</u>	Tubing Volume (gal) = <u> </u>
Depth to water (feet) = <u>106.76</u>	Minimum Purge (gal) = <u> </u>
Water column height (feet) = <u> </u>	Actual Purge (gal) = <u> </u>

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>1430</u>	<u>14.01</u>	<u>0.112</u>	<u>0.073</u>	<u>3.39</u>	<u>5.62</u>	<u>61.2</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>1433</u>	<u>15.68</u>	<u>0.116</u>	<u>0.072</u>	<u>3.22</u>	<u>5.59</u>	<u>86.3</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>1436</u>	<u>14.82</u>	<u>0.170</u>	<u>0.111</u>	<u>3.02</u>	<u>5.52</u>	<u>98.3</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>1439</u>	<u>14.71</u>	<u>0.190</u>	<u>0.121</u>	<u>2.93</u>	<u>5.63</u>	<u>98.0</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>1442</u>	<u>14.66</u>	<u>0.197</u>	<u>0.126</u>	<u>2.88</u>	<u>5.73</u>	<u>95.9</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>1445</u>	<u>14.61</u>	<u>0.196</u>	<u>0.127</u>	<u>2.76</u>	<u>5.78</u>	<u>94.9</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>1448</u>	<u>14.66</u>	<u>0.195</u>	<u>0.127</u>	<u>2.72</u>	<u>5.80</u>	<u>94.2</u>	<u>clear</u>	<u>clear</u>
<u>1.4</u>	<u>1451</u>	<u>14.63</u>	<u>0.196</u>	<u>0.127</u>	<u>2.61</u>	<u>5.82</u>	<u>93.8</u>	<u>clear</u>	<u>clear</u>
<u>1.6</u>	<u>1454</u>	<u>14.68</u>	<u>0.196</u>	<u>0.127</u>	<u>2.58</u>	<u>5.82</u>	<u>93.6</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump <u> </u> Bailer (disposable) <u> </u> Active Extraction Well Pump <u> </u> Bailer (PVC) <u> </u> Submersible Pump <u> </u> Bailer (Stainless Steel) <u> </u> Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: <u> </u> Pump Intake Depth: <u> </u> (feet)	<u> </u> 40mL VOA <u> </u> mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL <u> </u> <u> </u> mL amber glass <u> </u> <u> </u> mL amber glass w/ HCL <u> </u> <u> </u> mL HDPE <u> </u> <u> </u> mL HDPE w/ HNO3 <u> </u>

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>Steve</u> <u>Teles</u>	Page 1 of 1
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-21</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-21-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>0</u>	

Date Purged: <u>7/21/20</u>	Start (2400hr): <u>1507</u>	End (2400hr): <u>1525</u>
Date Sampled: <u>7/21/20</u>	Sample Time (2400hr): <u>1525</u>	

Casing Diameter: <u>2" X</u>	3" <u> </u>	4" <u> </u>	5" <u> </u>	6" <u> </u>	8" <u> </u>	Other <u> </u>
Casing Volume: (gallons per foot) (0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()

Total depth (feet) = <u> </u>	Tubing Volume (gal) = <u> </u>
Depth to water (feet) = <u>102.91</u>	Minimum Purge (gal) = <u> </u>
Water column height (feet) = <u> </u>	Actual Purge (gal) = <u> </u>

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>1507</u>	<u>16.21</u>	<u>0.185</u>	<u>0.120</u>	<u>3.59</u>	<u>6.45</u>	<u>75.9</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>1510</u>	<u>14.99</u>	<u>0.181</u>	<u>0.118</u>	<u>3.07</u>	<u>5.68</u>	<u>101.9</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>1513</u>	<u>14.71</u>	<u>0.185</u>	<u>0.120</u>	<u>2.93</u>	<u>5.31</u>	<u>110.9</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>1516</u>	<u>14.62</u>	<u>0.187</u>	<u>0.121</u>	<u>2.79</u>	<u>5.21</u>	<u>116.0</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>1519</u>	<u>14.66</u>	<u>0.187</u>	<u>0.121</u>	<u>2.76</u>	<u>5.18</u>	<u>110.3</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>1522</u>	<u>14.69</u>	<u>0.187</u>	<u>0.121</u>	<u>2.66</u>	<u>5.17</u>	<u>108.1</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>1525</u>	<u>14.50</u>	<u>0.187</u>	<u>0.121</u>	<u>2.65</u>	<u>5.18</u>	<u>106.9</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump <u> </u> Bailer (disposable) <u> </u> Active Extraction Well Pump <u> </u> Bailer (PVC) <u> </u> Submersible Pump <u> </u> Bailer (Stainless Steel) <u> </u> Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: <u> </u> Pump Intake Depth: <u> </u> (feet)	<u> </u> 40mL VOA <u> </u> mL HDPE w/ H2SO4 <u>5</u> 40mL VOA w/ HCL <u> </u> <u> </u> mL amber glass <u> </u> <u> </u> mL amber glass w/ HCl <u> </u> <u> </u> mL HDPE <u> </u> <u> </u> mL HDPE w/ HNO3 <u> </u>

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>Steve Ehl</u>	Page 1 of 1
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>MW-22</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>MW-22-0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>Duplicate: MW-32-0720 @ 1315</u>	

Date Purged: <u>7/21/20</u>	Start (2400hr): <u>1242</u>	End (2400hr): <u>1303</u>
Date Sampled: <u>7/21/20</u>	Sample Time (2400hr): <u>1303</u>	

Casing Diameter: 2" ☒ 3" ☐ 4" ☐ 5" ☐ 6" ☐ 8" ☐ Other ☐
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ()

Total depth (feet) = <u>NM</u>	Tubing Volume (gal) = <u>-</u>
Depth to water (feet) = <u>63.04</u>	Minimum Purge (gal) = <u>-</u>
Water column height (feet) = <u>-</u>	Actual Purge (gal) = <u>1.40</u>

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>1242</u>	<u>16.56</u>	<u>0.191</u>	<u>0.124</u>	<u>8.21</u>	<u>6.41</u>	<u>63.1</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>1245</u>	<u>15.34</u>	<u>0.226</u>	<u>0.147</u>	<u>2.20</u>	<u>5.82</u>	<u>93.2</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>1248</u>	<u>15.02</u>	<u>0.229</u>	<u>0.149</u>	<u>1.61</u>	<u>5.75</u>	<u>94.0</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>1251</u>	<u>15.08</u>	<u>0.223</u>	<u>0.145</u>	<u>1.34</u>	<u>5.67</u>	<u>94.1</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>1254</u>	<u>15.08</u>	<u>0.220</u>	<u>0.142</u>	<u>1.20</u>	<u>5.63</u>	<u>93.6</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>1257</u>	<u>14.91</u>	<u>0.217</u>	<u>0.141</u>	<u>1.13</u>	<u>5.63</u>	<u>92.8</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>1300</u>	<u>15.04</u>	<u>0.212</u>	<u>0.138</u>	<u>1.03</u>	<u>5.62</u>	<u>92.1</u>	<u>clear</u>	<u>clear</u>
<u>1.40</u>	<u>1303</u>	<u>14.79</u>	<u>0.208</u>	<u>0.135</u>	<u>0.96</u>	<u>5.60</u>	<u>91.6</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated <u>tubing</u> Other: _____ Pump Intake Depth: <u>Set</u> (feet)	☐ 40mL VOA ☐ mL HDPE w/ H2SO4 <u>5</u> 40mL VOA w/ HCL _____ ☐ mL amber glass _____ ☐ mL amber glass w/ HCl _____ ☐ mL HDPE _____ ☐ mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>No</u>
Remarks: <u>N/A</u>	

Signature: <u>[Signature]</u>	Page 1 of <u>1</u>
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LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. <u>101.02207.00001</u>		Purged By: <u>SML</u>	Well I.D.: <u>PORT - MW - B</u>
Project Name: <u>SeaTac Development Site</u>		Sampled By: <u>SML</u>	Sample I.D.: <u>PORT - MW - B - 0720</u>
Location: <u>16025 International Boulevard, SeaTac, WA</u>		QA Samples: <u>0</u>	

Date Purged: <u>7/21/20</u>	Start (2400hr): <u>1200</u>	End (2400hr): <u>1221</u>
Date Sampled: <u>7/21/20</u>	Sample Time (2400hr): <u>1221</u>	

Casing Diameter: 2" <u>X</u>	3" <u> </u>	4" <u> </u>	5" <u> </u>	6" <u> </u>	8" <u> </u>	Other <u> </u>
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)

Total depth (feet) = <u>NM</u>	Tubing Volume (gal) = <u> </u>
Depth to water (feet) = <u>89.77</u>	Minimum Purge (gal) = <u> </u>
Water column height (feet) = <u> </u>	Actual Purge (gal) = <u>1.4</u>

FIELD MEASUREMENTS									
Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
<u>0</u>	<u>1200</u>	<u>22.35</u>	<u>0.169</u>	<u>0.123</u>	<u>6.85</u>	<u>6.12</u>	<u>67.6</u>	<u>clear</u>	<u>clear</u>
<u>0.2</u>	<u>1203</u>	<u>16.62</u>	<u>0.173</u>	<u>0.112</u>	<u>8.47</u>	<u>5.44</u>	<u>109.7</u>	<u>clear</u>	<u>clear</u>
<u>0.4</u>	<u>1206</u>	<u>14.95</u>	<u>0.173</u>	<u>0.113</u>	<u>5.17</u>	<u>5.37</u>	<u>107.6</u>	<u>clear</u>	<u>clear</u>
<u>0.6</u>	<u>1209</u>	<u>14.90</u>	<u>0.175</u>	<u>0.114</u>	<u>3.95</u>	<u>5.34</u>	<u>108.5</u>	<u>clear</u>	<u>clear</u>
<u>0.8</u>	<u>1212</u>	<u>14.85</u>	<u>0.173</u>	<u>0.113</u>	<u>3.64</u>	<u>5.31</u>	<u>108.6</u>	<u>clear</u>	<u>clear</u>
<u>1.0</u>	<u>1215</u>	<u>14.82</u>	<u>0.173</u>	<u>0.112</u>	<u>3.45</u>	<u>5.31</u>	<u>107.1</u>	<u>clear</u>	<u>clear</u>
<u>1.2</u>	<u>1218</u>	<u>14.83</u>	<u>0.175</u>	<u>0.113</u>	<u>3.19</u>	<u>5.37</u>	<u>104.2</u>	<u>clear</u>	<u>clear</u>
<u>1.4</u>	<u>1221</u>	<u>14.45</u>	<u>0.174</u>	<u>0.113</u>	<u>3.15</u>	<u>5.37</u>	<u>102.4</u>	<u>clear</u>	<u>clear</u>

PURGING & SAMPLING EQUIPMENT	SAMPLE VESSELS
☒ Well Wizard-Bladder Pump ☐ Bailer (disposable) ☐ Active Extraction Well Pump ☐ Bailer (PVC) ☐ Submersible Pump ☐ Bailer (Stainless Steel) ☐ Peristaltic Pump ☒ Dedicated _____ Other: _____ Pump Intake Depth: <u>Set</u> (feet)	☐ 40mL VOA _____ mL HDPE w/ H2SO4 ☒ 40mL VOA w/ HCL _____ ☐ _____ mL amber glass _____ ☐ _____ mL amber glass w/ HCl _____ ☐ _____ mL HDPE _____ ☐ _____ mL HDPE w/ HNO3 _____

Well Integrity: <u>Good</u>	Odor: <u>0</u>
Remarks: <u>0</u>	

Signature: <u>David Kame</u>	Page 1 of 1
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APPENDIX B

DATA TABLES AND TREND GRAPHS

Table B-1
Summary of Groundwater Sampling Results - Well MW-06
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
01/05/01	369.68	NM	NM	NM	NM	NM	NM	NM	< 0.10	< 1.0	< 1.0	< 1.0	< 2.0	NA	NA	NA	< 0.25	< 0.50	NA	NA
08/16/07	369.68	NM	NM	NM	NM	NM	NM	NM	< 0.25	< 1.0	< 1.0	< 1.0	< 2.0	NA	NA	NA	NA	NA	NA	NA
12/07/09	369.68	60.31	309.37	6.82	12.6	400	0.63	NM	< 0.10	< 1.0	< 1.0	< 1.0	< 2.0	< 0.0096	< 1.0	< 3.0	NA	NA	NA	NA
03/19/10	369.68	60.03	309.65	5.96	13.5	409	0.87	3.75	< 0.10	< 1.0	< 1.0	< 1.0	< 2.0	< 0.0096	< 1.0	< 5.0	NA	NA	NA	NA
02/11/14	369.68	59.03	310.65	6.13	12.1	139	0.91	16.4	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/28/14	369.68	NM	NM	6.14	14.3	454	1.03	3.71	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20 UJ	< 0.50	< 0.10	< 0.20	NA	NA
09/10/14	369.68	NM	NM	6.27	15.9	312	1.52	11.8	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/03/14	369.68	NM	NM	6.27	13.6	314	2.14	6.75	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
06/17/15	369.68	NM	NM	6.32	14.9	331	3.96	0.75	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/03/15	369.68	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
05/03/16	369.68	61.41	308.27	6.36	13.9	396	10.59	NM	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	0.19 J	<0.50	<0.10	<0.20	NA	NA
11/15/16	369.68	59.51	310.17	6.34	13.7	352	7.42	418	0.11	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	0.1 J	<0.50	0.17	<0.20	NA	NA
05/02/17	369.68	59.31	310.37	6.16	14.0	238	7.17	1.21	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	<0.10	<0.20	NA	NA
11/14/17	369.68	58.35	311.33	6.39	12.7	325	9.01	NM	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	<0.10	<0.20	NA	NA
01/16/18	369.68	57.78	311.90	6.13	13.1	244	8.81	0.6	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	<0.10	<0.20	NA	NA
03/09/18	369.68	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/15/18	369.68	57.22	312.46	5.94	13.8	200	8.76	0.15	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
11/07/18	369.68	57.41	312.27	6.35	13.6	188.0	8.74	0.4	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
07/29/19	369.68	57.97	311.71	6.28	15.9	244.0	8.13	NM	<0.10	<0.20	<0.20	<0.20	<0.60	<0.003	<0.20	<0.50	<0.10	<0.20	<0.10	<0.20
01/30/20	369.68	59.04	310.64	6.42	12.5	228.0	12.56	NM	<0.10	<0.10	<0.50	<0.25	<0.75	<0.01	<1.0	<1.0	NA	NA	NA	NA
07/22/20	369.68	59.56	310.12	4.52	15.4	258	2.75	NM	<0.10	<0.20	<1.0	<0.50	<1.5	<0.01	<2.0	<2.0	NA	NA	NA	NA

Notes:
Values in bold and red exceed MTCA Method A Cleanup Levels.
NS = Not sampled
NM = Not measured
NA = Not analyzed
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NTU = Nephelometric turbidity unit
µmhos/cm = Micromhos per centimeter
°C = Degrees Celsius
J = Laboratory estimated value
DRO = Diesel-range organics
ORO = Oil-range organics
GRO = Gasoline-range organics
EDB = 1,2-dibromoethane
^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.
^b When benzene is present.
^c When benzene is not present.
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).
^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-2
Summary of Groundwater Sampling Results - Well MW-07
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
01/05/01	358.70	NM	NM	NM	NM	NM	NM	NM	80	470	7,700	2,000	11,200	NA	NA	NA	< 0.25	< 0.50	NA	NA
08/16/07	358.70	NM	NM	NM	NM	NM	NM	NM	68	500	3,200	1,600	8,690	NA	NA	NA	NA	NA	NA	NA
12/07/09	358.70	49.02	309.68	6.89	10.90	347	2.83	NM	46	520	5,600	1,300	6,800	0.03	220	420	NA	NA	NA	NA
03/18/10	358.70	48.69	310.01	6.61	13.30	354	1.41	5.18	26	230	1,100	360	4,630	0.01	160	210	NS	NS	NA	NA
02/13/14	358.69	47.72	310.97	6.56	14.3	131	0.35	3.87	29	25	110	180	2,022	< 3.8 ^e	190	220	11 J	< 0.20	NA	NA
05/29/14	358.69	47.65	311.04	6.65	16.4	379	0.13	2.84	27	14	80	190	1,811	< 1.5 ^e	140	210 B	11 J	< 0.20	NA	NA
09/11/14	358.69	47.95	310.74	6.73	16.5	373	0.35	2.28	36	17	81	260	2,110	< 0.028 ^e	280	300 B J	11	0.41 J	NA	NA
12/04/14	358.69	47.95	310.74	6.70	15.7	333	0.20	2.95	26	21	66	200	1,507	< 0.07 ^e	170	180	11 J	0.32 J	NA	NA
06/18/15	358.69	48.01	310.68	6.64	16.1	371	0.25	1.57	15 J	6.4	28 J	110 J	533 J	< 0.07 ^e	93 J	96 J	5.4	0.24 J	NA	NA
12/03/15	358.69	49.96	308.73	6.44	15.9	526	0.14	2.91	23	77	1,200	270	1,550	< 1.5 ^e	160	69	4.9 J	< 0.20	NA	NA
05/04/16	358.69	49.05	309.64	6.68	16.0	640	1.02	4.57	12	30	500	170	970	<0.20 ^e	150	68 J	6.5 J	0.30 J	NA	NA
11/16/16	358.69	48.50	310.19	6.54	15.9	411	1.39	3.95	8.3	4.3	9.5	40	85	<0.20 ^e	11 J	37	2.4	<0.20	NA	NA
05/03/17	358.69	48.13	310.56	6.38	16.2	188	1.33	3.78	2.9	1.8	0.46	14	21	<0.20 ^e	1.9	32	1.4	0.20	NA	NA
11/14/17	358.69	47.15	311.54	6.39	15.1	278	0.98	NM	2.2	0.70	0.42	1.1	5.9	<0.20 ^e	0.3	11	1.6	0.44	NA	NA
01/18/18	358.69	46.75	311.94	6.21	14.7	270	0.23	2.15	1.9	1.0	0.67	2.04 J	7.3 J	<0.20 ^e	0.5	10	1.5	<0.20	NA	NA
03/09/18	358.69	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/16/18	358.69	46.10	312.59	6.15	15.2	248	0.25	2.25	1.8	0.41	0.35	1	3	<0.01	<0.20	6.1	0.78	<0.20	NA	NA
11/08/18	358.69	46.32	312.37	6.67	14.7	220	0.29	1.60	1.4	0.73	0.29	0.78	1.6	<0.01	0.42	4.0	0.74	<0.20	NA	NA
07/26/19	358.69	46.74	311.95	6.45	17.4	281	0.43	NM	0.73	0.30	0.27	0.75	1.13	<0.003	0.29	1.63	0.17	<0.20	<0.10	<0.20
01/29/20	358.69	48.12	310.57	6.72	14.59	201.00	0.86	NM	0.75	0.39	8.07	2.34	11.0	<0.02 ^e	6.97	5.08	NA	NA	<0.081	<0.16
07/22/20	358.69	48.43	310.26	6.03	16.13	139.00	0.29	NM	0.80	<0.20	<1.0	2.24	11.9	<0.02 ^e	<2.0	2.92	NA	NA	NA	NA

Notes:
Values in bold and red exceed MTCA Method A Cleanup Levels.
NS = Not sampled
NM = Not measured
NA = Not analyzed
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NTU = Nephelometric turbidity unit
µmhos/cm = Micromhos per centimeter
°C = Degrees Celsius
J = Laboratory estimated value
DRO = Diesel-range organics
ORO = Oil-range organics
GRO = Gasoline-range organics
EDB = 1,2-dibromoethane
^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.
^b When benzene is present.
^c When benzene is not present.
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).
^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-3
Summary of Groundwater Sampling Results - Well MW-09
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
01/05/01	362.14	NM	NM	NM	NM	NM	NM	NM	90	1,900	1,200	1,800	9,700	NA	NA	NA	< 0.25	< 0.50	NA	NA
08/16/07	362.14	NM	NM	NM	NM	NM	NM	NM	34	280	230	750	3,270	NA	NA	NA	NA	NA	NA	NA
05/19/09	362.14	52.25	309.89	6.17	15.6	290	1.86	2.86	37	240	220	810	2,910	NA	NA	NA	NA	NA	NA	NA
12/07/09	362.14	52.67	309.47	6.52	10.7	306	0.43	NM	19	190	33	730	1,927	0.01	83	260	NA	NA	NA	NA
03/19/10	362.14	52.30	309.84	6.19	14.2	294	0.13	7.18	16	170	65	400	1,434	0.016	100	160	NS	NS	NA	NA
02/12/14	362.13	51.45	310.68	6.49	12.6	99.5	0.28	3.10	7.5	30	8.1	150	98	< 0.08 ^e	16	120	1.6 J	< 0.20	NA	NA
05/29/14	362.13	51.41	310.72	6.44	15.0	295	0.14	1.01	7.8	32	9.4	170	112	< 0.37 ^e	5.60	92 B	2.3 J	< 0.20	NA	NA
09/10/14	362.13	NM	NM	6.49	15.7	310	0.20	3.85	5.6	17	4.6	100	47.2	< 0.01 ^e	< 0.20	74	2.8	< 0.20	NA	NA
12/03/14	362.13	51.68	310.45	6.47	13.6	307	0.18	2.37	4.1	14	2.8	76	8.8	< 0.07 ^e	< 0.20	44	1.9	< 0.20	NA	NA
06/17/15	362.13	51.67	310.46	6.48	15.1	331	0.18	0.75	1.7	7.2	1.3	40	1.6	< 0.07 ^e	< 0.20	18	1.5	< 0.20	NA	NA
12/03/15	362.13	NM	NM	6.37	14.1	477	0.96	3.91	2.2 J	8.4	1.5 J	73	1.45 J	< 0.07 ^e	< 0.20	5.7	1.0 J	< 0.20	NA	NA
05/03/16	362.13	NM	NM	6.51	18.3	221	4.68	1.08	<0.10	0.15 J	<0.20	0.71	<0.40	<0.20 ^e	<0.20	<0.50	0.22 J	<0.20	NA	NA
11/15/16	362.13	52.15	309.98	5.94	14.5	234	1.41	0.80	<0.10	0.23	0.23	0.56	0.32	<0.20 ^e	<0.20	<0.50	0.20	<0.20	NA	NA
05/03/17	362.13	NM	NM	5.94	15.5	165	3.09	1.43	<0.10	0.23	0.05 J	0.42	<0.40	<0.20 ^e	<0.20	<0.50	0.28	<0.20	NA	NA
11/14/17	362.13	50.74	311.39	5.98	13.9	211	2.14	NM	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	0.22	<0.20	NA	NA
01/16/18	362.13	50.33	311.80	5.94	13.6	202	1.10	1.02	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	0.26	<0.20	NA	NA
03/09/18	362.13	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/15/18	362.13	49.68	312.45	5.86	15.0	193	0.67	0.61	<0.10	0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	0.34	<0.20	NA	NA
11/07/18	362.13	49.86	312.27	6.28	13.8	203	0.32	0.25	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	0.28	<0.20	NA	NA
07/29/19	362.13	50.33	311.80	6.32	15.5	285	0.50	NM	<0.10	0.20	<0.20	<0.20	<0.60	<0.003	<0.20	<0.50	0.11	<0.20	<0.10	<0.20
01/30/20	362.13	51.45	310.68	6.40	12.7	249	0.77	NM	<0.10	0.54	<0.50	<0.25	<0.75	<0.01	<1.0	<1.0	NA	NA	NA	NA
07/22/20	362.13	51.91	310.22	5.04	15.4	284	0.68	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-4
Summary of Groundwater Sampling Results - Well MW-12
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
08/16/07	364.88	NM	NM	NM	NM	NM	NM	NM	92	710	7,600	1,800	11,000	NA	NA	NA	NA	NA	NA	NA
05/21/09	364.88	54.99	309.87	6.43	17.8	416	0.19	33.7	110	1,600	11,000	2,100	10,000	0.70	< 500 ^e	580	NA	NA	NA	NA
12/07/09	364.88	55.29	309.59	7.58	12.0	452	0.06	NM	38	390	2,600	1,200	4,990	0.21	110	540	NA	NA	NA	NA
03/15/10	364.88	54.99	309.89	6.38	14.5	472	0.03	40.8	36	230	2,400	1,300	5,140	0.16	210	520	NS	NS	NS	NS
02/13/14	364.83	55.02	309.81	7.76	14.1	125	10.50	3.43	8.6	79	410	79	970	< 3.8 ^e	< 10	25	1.1 J	< 0.20	NA	NA
05/29/14	364.83	51.58	313.25	7.87	16.7	252	11.77	5.99	0.12	2.0	4.3	1.6	4.2	< 0.07 ^e	< 0.20	< 0.50	0.34 J	< 0.20	NA	NA
09/11/14	364.83	54.87	309.96	8.04	18.1	255	11.80	38.8	0.11	2.5	2.6	1.5	5.3	< 0.01	0.78	0.53 B J	0.35	< 0.20	NA	NA
12/04/14	364.83	54.87	309.96	8.04	15.1	258	11.51	153	< 0.10	< 0.25	< 0.25	0.73	6.0	< 0.07 ^e	0.18 J	0.68	0.20	< 0.20	NA	NA
06/18/15	364.83	NM	NM	8.09	16.3	208	9.90	2.44	< 0.25	< 0.20	< 0.20	0.10 J	2.1	< 0.07 ^e	0.26	< 0.50	0.45	< 0.20	NA	NA
12/03/15	364.83	56.74	308.09	NM	NM	NM	NM	NM	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	0.29	< 0.20	NA	NA
05/04/16	364.83	55.53	309.30	7.68	15.1	226	7.72	3.48	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	0.18 J	< 0.20	NA	NA
11/16/16	364.83	55.20	309.63	7.84	14.9	199	8.45	13.4	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	0.16	< 0.20	NA	NA
05/03/17	364.83	59.02	305.81	7.53	15.9	80	8.01	4.96	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	0.89	< 0.215	NA	NA
11/15/17	364.83	53.37	311.46	7.69	14.9	301	0.99	18.9	2.2	1.8	18	11	113	< 0.20 ^e	29	33	1.0	0.30	NA	NA
01/18/18	364.83	53.13	311.70	7.29	14.4	314	0.35	30.1	2.2	1.7	12	26	90	< 0.20 ^e	29	30	1.6	< 0.20	NA	NA
03/09/18	364.83	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/16/18	364.83	52.31	312.52	7.06	15.3	374	0.27	3.0	2.8	17	2.1	24	43	< 0.01	26	19	2.9	< 0.20	NA	NA
11/08/18	364.83	52.55	312.28	7.98	14.7	354	0.36	6.6	3.6	26	2.5	24	25	< 0.01	48 J	17	< 0.10	< 0.20	NA	NA
07/29/19	364.83	53.01	311.82	7.28	16.0	455	0.89	NM	2.3	8.2	2.9	16	25	< 0.003	8.43	14	1.85	< 0.20	< 0.10	< 0.20
01/29/20	364.83	63.90	300.93	7.18	12.6	10	13.47	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	< 0.078	< 0.16
07/22/20	364.83	54.60	310.23	6.36	15.2	185	0.24	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-5
Summary of Groundwater Sampling Results - Well MW-13
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
08/16/07	365.42	NM	NM	NM	NM	NM	NM	NM	92	180.0	5,600	2,100	12,600	NA	NA	NA	NA	NA	NA	NA
05/20/09	365.42	55.51	309.91	6.29	18.8	474	1.13	4.8	76	51.0	1,400	2,100	11,000	0.07	< 250	640	NA	NA	NA	NA
12/07/09	365.42	55.83	309.59	6.44	12.3	429	0.18	NM	31	20.0	310	870	4,570	0.05	100	500	NA	NA	NA	NA
03/19/10	365.42	55.66	309.76	6.28	12.8	271	0.16	72.1	33	14	230	890	4,500	0.029	130	410	NS	NS	NS	NS
02/12/14	365.42	54.35	311.07	6.57	13.2	73.3	1.41	4.28	14	< 0.25	3.9	240	2,070	< 0.08 ^e	< 0.20	33	1.4 J	< 0.20	NA	NA
05/29/14	365.42	55.62	309.80	6.84	14.7	182	10.59	4.24	0.14	< 0.25	< 0.25	0.85	19	< 0.07 ^e	0.11 J	< 0.50	0.32	< 0.20	NA	NA
09/10/14	365.42	54.86	310.56	7.06	14.9	137	11.06	2.41	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.01	< 0.20	< 0.50	0.29	< 0.20	NA	NA
12/04/14	365.42	54.86	310.56	7.06	13.9	163	10.10	2.32	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	0.31	< 0.20	NA	NA
06/18/15	365.42	54.70	310.72	7.13	14.7	174	10.71	1.32	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	0.61	0.27	< 0.20	NA	NA
12/02/15	365.42	56.43	308.99	7.27	14.2	164	10.20	0.90	< 0.25	< 0.20	< 0.20	0.23	1.10 J	< 0.07 ^e	< 0.20	< 0.50	0.26	< 0.20	NA	NA
05/03/16	365.42	56.30	309.12	7.79	15.8	194	14.18	1.14	<0.10	<0.20	<0.20	<0.20	0.44	<0.20 ^e	<0.20	<0.50	0.12 J	<0.20	NA	NA
11/15/16	365.42	55.81	309.61	7.25	14.1	195	10.64	0.73	<0.10	<0.20	<0.20	<0.20	0.46	<0.20 ^e	<0.20	<0.50	0.19	<0.20	NA	NA
05/03/17	365.42	55.14	310.28	7.03	14.5	116	10.71	1.45	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	0.18	<0.20	NA	NA
11/14/17	365.42	54.05	311.37	6.75	13.6	136	1.72	NM	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	0.13	<0.20	NA	NA
01/16/18	365.42	53.62	311.80	6.93	13.4	159	0.85	2.02	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	<0.10	<0.20	NA	NA
03/09/18	365.42	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/15/18	365.42	52.96	312.46	6.43	14.1	120	1.87	1.14	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
11/07/18	365.42	53.16	312.26	7.10	13.6	141	1.00	0.64	<0.10	<0.20	<0.20	<0.20	<0.40	<0.01	<0.20	<0.50	<0.10	<0.20	NA	NA
07/29/19	365.42	53.59	311.83	6.83	17.0	212	1.85	NM	<0.10	0.07 J	<0.20	<0.20	<0.60	<0.003	<0.20	<0.50	<0.10	<0.20	<0.10	<0.20
01/30/20	365.42	54.92	310.50	7.10	12.9	215	3.28	NM	<0.10	0.15 J	<0.50	<0.25	<0.75	<0.01	<1.0	<1.0	NA	NA	NA	NA
07/22/20	365.42	55.19	310.23	5.75	14.4	238	0.99	NM	0.90	0.34	<1.0	0.74	<1.50	<0.20 ^e	5.75	4.55	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-6
Summary of Groundwater Sampling Results - Well MW-17A
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundw ater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
MTCA Method A Groundwater Cleanup Levels ^a									0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/13/07	385.81	75.60	310.21	NM	NM	NM	NM	NM	17	1.0	5.2	45	507	NA	NA	NA	7.3	< 0.5	NA	NA
05/28/09	385.81	76.17	309.64	6.23	18.2	183.9	0.37	4.9	6.3	0.7	0.6	13	96	< 0.2 ^g	< 5.0	150	NA	NA	NA	NA
12/07/09	385.81	76.49	309.32	6.46	10	166	0.13	NM	4.5	< 4.0	7	8.8	56	< 0.0095	< 4.0	140	NA	NA	NA	NA
03/17/10	385.81	76.29	309.52	6.51	9.3	145	0.52	142	1.7	< 1.0	< 1.0	4.0	27	< 0.0095	< 1.0	63	NS	NS	NS	NS
02/11/14	394.00 ^e	83.80	310.20 ^f	6.36	11.3	82.5	1.06	137	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08 ^g	< 0.20	0.74	< 0.10	< 0.20	NA	NA
05/29/14	394.00 ^e	84.00	310.00 ^f	6.22	12.2	175	2.06	39.7	< 0.10	0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	0.62 J	< 0.10	< 0.20	NA	NA
09/10/14	394.00 ^e	84.18	309.82 ^f	6.28	12.4	162	1.42	18.8	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	0.64 J	< 0.10	< 0.20	NA	NA
12/05/14	394.00 ^e	84.18	309.82 ^f	6.42	11.7	167	1.09	31.8	< 0.10 J	0.54 J	< 0.25 J	< 0.25 J	0.63 J	< 0.07 ^g	< 0.20 J	2.8	< 0.10	< 0.20	NA	NA
06/17/15	394.00 ^e	84.16	309.84 ^f	6.29	12.9	158	3.13	29.6	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/18/15	394.00 ^e	85.95	308.05 ^f	6.57	11.8	127	0.20	23.7	0.05 J	0.75	< 0.20	0.08 J	< 0.40	< 0.07 ^g	< 0.20	0.98 J	< 0.10	< 0.20	NA	NA
05/03/16	394.00 ^e	85.21	308.79 ^f	6.51	13.1	132	4.60	8.41	< 0.10	0.33	< 0.20	< 0.20	< 0.40	< 0.20 ^g	0.11 J	0.71 J	< 0.10	< 0.20	NA	NA
11/15/16	394.00 ^e	84.57	309.43 ^f	6.46	12.6	122	3.76	10.2	< 0.10	0.14 J	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/03/17	394.00 ^e	84.24	309.76 ^f	6.08	12.4	76	7.25	7.57	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/15/17	394.00 ^e	83.17	310.83 ^f	6.62	12.1	105	7.05	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	0.54	< 0.10	< 0.20	NA	NA
01/16/18	394.00 ^e	82.95	311.05 ^f	6.27	12.0	111	8.55	4.2	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
03/09/18	394.00 ^e	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
05/15/18	394.00 ^e	82.21	311.79 ^f	6.14	12.9	106	8.57	1.4	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/08/18	394.00 ^e	82.49	311.51 ^f	6.48	12.3	116	8.20	3.4	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
07/29/19	394.00 ^e	82.67	311.33 ^f	6.35	15.4	175	6.90	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.60	< 0.003	0.10 J	< 0.50	< 0.10	< 0.20	< 0.10	< 0.20
01/30/20	394.44	84.14	310.30	6.38	12.1	161	5.74	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	NA	NA
07/21/20	394.44	84.35	310.09	5.35	13.7	168	1.99	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e Top of casing elevation was not surveyed; elevation was estimated by Golder Associates, Inc.

^f Estimated elevation.

^g The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-7
Summary of Groundwater Sampling Results - Well MW-18
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
11/28/07	360.45	52.50	307.95	NM	NM	NM	NM	NM	79	2,900	7,500	1,600	6,290	NA	NA	NA	0.66	< 0.5 ^e	NA	NA
05/21/09	360.45	54.53	305.92	6.71	17.4	494	0.11	4.58	78	3,100	7,600	2,200	9,600	1.40	500	460	NA	NA	NA	NA
12/07/09	360.45	50.85	309.60	6.80	12.4	587	0.28	NM	44	2,200	5,400	1,600	6,690	1.90	180	380	NA	NA	NA	NA
03/18/10	360.45	50.58	309.87	6.69	14.2	586	0.11	5.39	52	2,600	6,000	1,700	6,690	2.5	350	420	NS	NS	NS	NS
02/12/14	360.45	49.01	311.44	7.62	13.8	175	8.11	2.89	1.0	27	13	17	91	< 0.08 ^e	1.1	4.0	0.77 J	<0.20	NA	NA
05/29/14	360.45	49.75	310.70	7.98	15.2	369	10.60	7.95	0.14	6.6	1.5	4.7	9.2	< 0.07 ^e	0.64	0.84 J+	0.33 J	<0.20	NA	NA
09/11/14	360.45	49.83	310.62	8.23	15.2	498	11.23	13.1	< 0.10	0.72	0.27	0.40	0.72	< 0.010	< 0.20	< 0.50	0.14	< 0.20	NA	NA
12/04/14	360.45	49.83	310.62	7.84	14.4	470	10.78	81.6	< 0.10	0.69	< 0.25	0.63	0.93	< 0.07 ^e	0.10 J	< 0.50	0.24	< 0.20	NA	NA
06/18/15	360.45	49.51	310.94	8.05	15.2	515	10.89	49.6	< 0.25	0.67	0.54	0.24	1.1	< 0.07 ^e	< 0.20	< 0.50	0.38	< 0.20	NA	NA
12/03/15	360.45	NM	NM	8.28	14.8	455	10.21	14.6	< 0.25	0.57	4.8	0.34	9.8	< 0.07 ^e	0.25	0.67	0.13	< 0.20	NA	NA
05/04/16	360.45	51.12	309.33	7.27	14.8	513	4.53	4.77	0.22	8.0	5.5	8.2	29	<0.20 ^e	1.5	1.5 J	0.37 J	<0.20	NA	NA
11/16/16	360.45	50.63	309.82	7.55	15.0	503	6.97	2.44	0.12	3.6	1.2	2.1	9.0	<0.20 ^e	0.39	<0.50	0.48	<0.20	NA	NA
05/03/17	360.45	50.12	310.33	7.19	15.6	313	4.54	3.57	0.28	6.9	3.1	6.8	21	<0.20 ^e	1.4	2.7	0.29	0.30	NA	NA
11/14/17	360.45	49.00	311.45	6.78	15.2	454	0.71	NM	1.3	3.6	1.6	7.4	8.7	<0.20 ^e	0.33	<0.50	4.4	0.43	NA	NA
01/16/18	360.45	48.62	311.83	6.12	14.4	22.7	6.23	18.1	<0.10	<0.20	<0.20	<0.20	<0.40	<0.20 ^e	<0.20	<0.50	<0.10	<0.20	NA	NA
03/09/18	360.45	48.35	312.10	6.69	14.4	479	0.28	1.9	1.9	NS	NS	NS	NS	NS	NS	NS	4.66	<0.20	NA	NA
05/16/18	360.45	47.94	312.51	6.42	15.2	405	0.21	1.4	1.5	6.2	2.2	20	19	<0.01	1.3	5.1	2.9	<0.20	NA	NA
11/07/18	360.45	48.14	312.31	6.82	15.1	506	0.17	2.5	1.5	6.6	1.1	24	2.8	<0.01	<0.20	7.0	3.3	<0.20	NA	NA
07/26/19	360.45	48.58	311.87	6.55	17.9	782	0.65	NM	1.2	1.3	0.3	1.2	2.4	<0.003	0.22	4.8	2.8	<0.20	<0.10	<0.20
01/30/20	360.45	50.03	310.42	7.51	13.5	27	7.14	NM	<0.10	<0.10	<0.50	<0.25	<0.75	<0.01	<1.0	<1.0	NA	NA	<0.080	<0.16
07/22/20	360.45	50.25	310.20	6.80	16.1	355	1.57	NM	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-8
Summary of Groundwater Sampling Results - Well MW-19
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
02/04/08	356.61	45.90	310.71	NM	NM	NM	NM	NM	< 0.25	< 1.0	2	< 1.0	1.1	NA	NA	NA	NA	NA	NA	NA
05/21/09	356.61	46.51	310.10	6.99	15.3	271	0.17	3.14	0.46	16.0	3.6	3.3	5.3	NA	NA	NA	NA	NA	NA	NA
12/07/09	356.61	46.89	309.72	7.31	12.8	246	0.26	NM	0.13	2.0	1.3	3.1	8.0	< 0.0096	51	< 3.0	NA	NA	NA	NA
03/18/10	356.61	46.60	310.01	7.04	12.5	275	0.07	84.0	1.3	8.9	1.8	43	6.0	< 0.0096	2.8	< 5.0	NS	NS	NS	NS
02/11/14	356.61	45.46	311.15	6.98	12.7	105	0.15	3.20	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08 ^e	4.3	< 0.50	< 0.10	< 0.20	NA	NA
05/29/14	356.61	45.74	310.87	6.96	13.7	290	0.04	0.42	< 0.10	< 0.25	0.40	< 0.25	0.58	< 0.07 ^e	0.30	< 0.50	< 0.10	< 0.20	NA	NA
09/10/14	356.61	45.73	310.88	6.93	14.5	379	0.16	0.30	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/03/14	356.61	45.73	310.88	6.82	13.3	380	0.20	0.86	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
06/17/15	356.61	45.94	310.67	6.75	14.3	400	0.26	0.86	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/02/15	356.61	47.72	308.89	6.87	13.6	530	0.09	2.60	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/03/16	356.61	46.81	309.80	6.79	15.2	390	0.87	1.23	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/15/16	356.61	46.15	310.46	6.88	14.1	586	0.37	0.81	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/02/17	356.61	45.90	310.71	6.46	13.9	268	2.04	0.36	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.106	< 0.213	NA	NA
11/14/17	356.61	45.04	311.57	6.73	13.7	456	0.98	0.79	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
01/16/18	356.61	44.57	312.04	6.79	13.5	414	0.20	0.64	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
03/09/18	356.61	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
05/15/18	356.61	43.92	312.69	6.47	14.6	305	0.34	0.49	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/08/18	356.61	44.15	312.46	7.00	13.6	314	0.33	0.72	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
07/26/19	356.61	44.63	311.98	6.46	15.1	333	0.51	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.60	< 0.003	< 0.20	< 0.50	< 0.10	< 0.20	< 0.10	< 0.20
01/30/20	356.61	45.95	310.66	6.86	13.1	278	1.95	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	NA	NA
07/22/20	356.61	46.24	310.37	5.72	14.4	222	0.68	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA

Notes:
Values in bold and **red** exceed MTCA Method A Cleanup Levels.
NS = Not sampled
NM = Not measured
NA = Not analyzed
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NTU = Nephelometric turbidity unit
µmhos/cm = Micromhos per centimeter
°C = Degrees Celsius
J = Laboratory estimated value
DRO = Diesel-range organics
ORO = Oil-range organics
GRO = Gasoline-range organics
EDB = 1,2-dibromoethane
^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.
^b When benzene is present.
^c When benzene is not present.
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).
^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-9
Summary of Groundwater Sampling Results - Well MW-20
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
05/27/09	430.98	121.65	309.33	6.58	17.2	391	3.88	3.95	< 0.10	< 0.25	< 0.25	< 0.25	< 0.75	< 0.2	< 5.0	< 0.5	NA	NA	NA	NA
12/07/09	430.98	121.97	309.01	6.85	10.6	361	5.84	NM	< 0.10	< 1.0	< 1.0	< 1.0	< 2.0	< 0.0095	< 1.0	< 3.0	NA	NA	NA	NA
03/17/10	430.98	121.79	309.19	6.63	10.8	359	4.82	4.37	< 0.10	< 1.0	< 1.0	< 1.0	< 1.0	< 0.0095	< 1.0	< 5.0	NS	NS	NS	NS
03/20/14	416.61	106.13	310.48	6.74	11.4	377	7.82	3.32	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50 UJ	< 0.10	< 0.20	NA	NA
05/29/14	416.61	106.66	309.95	6.73	12.3	257	6.37	0.82	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
09/10/14	416.61	106.53	310.08	6.83	13.2	355	7.55	0.69	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/03/14	416.61	106.53	310.08	6.79	12.4	355	7.67	1.30	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
06/17/15	416.61	106.68	309.93	6.77	13.3	350	7.41	1.06	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/03/15	416.61	108.61	308.00	7.66	12.4	290	6.76	4.28	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/03/16	416.61	107.56	309.05	6.58	13.3	138	5.31	3.55	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/15/16	416.61	106.97	309.64	6.75	13.0	241	7.12	0.41	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/03/17	416.61	106.66	309.95	6.63	12.8	118	8.97	1.35	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/14/17	416.61	105.76	310.85	6.60	12.7	192	9.06	1.76	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
01/16/18	416.61	105.48	311.13	6.67	12.8	165	9.46	0.66	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
03/09/18	416.61	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
05/15/18	416.61	104.65	311.96	6.31	13.0	119	9.63	0.48	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/08/18	416.61	104.98	311.63	6.89	13.2	144	7.83	1.07	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
07/26/19	416.61	105.29	311.32	6.77	18.3	222	9.68	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.60	< 0.003	< 0.20	< 0.50	< 0.10	< 0.20	< 0.10	< 0.20
01/30/20	416.61	106.60	310.01	6.57	13.0	81	8.89	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	NA	NA
07/21/20	416.61	106.78	309.83	5.82	14.7	196	2.58	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA

Notes:
Values in bold and red exceed MTCA Method A Cleanup Levels.
NS = Not sampled
NM = Not measured
NA = Not analyzed
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NTU = Nephelometric turbidity unit
µmhos/cm = Micromhos per centimeter
°C = Degrees Celsius
J = Laboratory estimated value
DRO = Diesel-range organics
ORO = Oil-range organics
GRO = Gasoline-range organics
EDB = 1,2-dibromoethane
^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.
^b When benzene is present.
^c When benzene is not present.
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).
^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-10
Summary of Groundwater Sampling Results - Well MW-21
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
12/07/09	390.79	81.44	309.35	6.53	11.2	264	4.16	NM	< 0.10	< 1.0	< 1.0	< 1.0	< 2.0	< 0.0096	< 1.0	< 3.0	NA	NA	NA	NA
03/17/10	390.79	81.26	309.53	5.97	11.5	257	3.21	5.13	< 0.10	< 1.0	< 1.0	< 1.0	< 1.0	< 0.0096	< 1.0	< 5.0	NS	NS	NS	NS
02/11/14	412.85	102.34	310.51	6.09	11.9	110	6.31	11.2	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.08 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/29/14	412.85	102.61	310.24	6.15	12.5	277	6.28	1.71	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
09/10/14	412.85	102.66	310.19	6.15	13.5	283	6.25	1.95	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/03/14	412.85	102.66	310.19	6.20	12.3	304	5.54	13.1	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
06/17/15	412.85	102.81	310.04	6.12	13.5	326	6.12	1.98	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/03/15	412.85	104.70	308.15	5.17	12.6	341	6.21	1.39	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/03/16	412.85	104.40	308.45	6.28	13.7	315	9.30	3.86	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/15/16	412.85	102.97	309.88	6.30	13.4	290	6.29	4.51	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/03/17	412.85	102.68	310.17	6.08	13.0	134	7.33	1.12	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.109	< 0.22	NA	NA
11/14/17	412.85	101.84	311.01	6.21	12.9	165	8.39	1.76	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
01/16/18	412.85	101.45	311.40	6.19	12.9	157	8.61	1.33	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.20 ^e	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
03/09/18	412.85	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
05/15/18	412.85	100.66	312.19	6.00	13.1	116	8.91	0.59	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/08/18	412.85	100.93	311.92	6.47	13.0	127	8.75	0.64	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
07/26/19	412.85	101.39	311.46	6.34	16.4	216	9.91	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.60	< 0.003	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
01/30/20	412.85	102.69	310.16	6.37	12.2	180	9.37	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	NA	NA
07/21/20	412.85	102.91	309.94	5.18	14.5	187	2.65	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-11
Summary of Groundwater Sampling Results - Well MW-22
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels ^a					0.8 ^b /1.0 ^c	5.0	1,000	700	1,000	0.01	480 ^d	160	0.5	0.5	0.5	0.5
12/10/09	393.31	83.8	309.51	6.96	11.7	5.66	0.27	NM	8	17	26	770	1,112	< 0.0095	4.9	270	NA	NA	NA	NA
02/12/10	393.31	NM	NM	NM	NM	NM	NM	0.97	12	22	51	850	1,719	< 0.0096	11	280	NA	NA	NA	NA
03/16/10	393.31	83.63	309.68	6.65	12.5	586	0.25	82.0	15	23	74	1,400	2,420	< 0.0095	15	380	NS	NS	NS	NS
03/20/14	393.31	82.93	310.38	6.68	12.2	381	0.87	64.8	17	5.7	12	990	1,503	< 0.07 ^f	7.8	400 J	1.2 J	< 0.20	NA	NA
05/28/14	393.31	82.72	310.59	6.73	13.2	383	0.30	2.26	18	3.9	9.7	940	1,900	< 0.07 ^f	8.6	420 B	1.7 J	< 0.20	NA	NA
09/12/14	393.31	82.98	310.33	6.81	13.7	423	0.29	1.03	16	4.8	9.3	690	1,103	< 1.5 ^f	9.8	460 B J	1.1 J	< 0.20	NA	NA
12/05/14	393.31	82.98	310.33	6.81	12.8	378	0.26	3.71	16	8.7	11	740	1,103	< 1.5 ^f	7.2	380	0.86 J	< 0.20	NA	NA
06/25/15	393.31	82.95	310.36	6.82	13.6	354	0.52	3.34	19	5.9	7.4	750	1,402	< 0.74 ^f	4.7	310	1.0 J	< 0.20	NA	NA
12/02/15	393.31	84.83	308.48	6.87	13.0	325	0.25	3.42	19	4.4	6.2	840	1,503	< 1.5 ^f	3.0 J	240	1.5 J	< 0.20	NA	NA
05/04/16	393.31	83.85	309.46	6.84	13.3	294	0.39	3.61	15	3.8	5.0	780	1,403	< 0.20 ^f	8.6	470 Q	2.8 J	< 0.20	NA	NA
11/16/16	393.31	83.43	309.88	6.89	13.1	246	1.00	5.50	11	4.0	3.9	631	882	< 0.20 ^f	5.9 J	438	1.9	< 0.20	NA	NA
05/02/17	393.31	82.95	310.36	6.67	13.3	172	0.41	1.87	13	4.2	4.4	651	960	< 0.20 ^f	5.7	389	2.8	< 0.222	NA	NA
11/15/17	393.31	81.93	311.38	7.09	13.1	215	1.72	3.72	11	4.2	3.3	481	583	< 2.0 ^f	5.4	326	2.4	< 0.20	NA	NA
01/18/18	393.31	81.43	311.88	6.67	12.9	196	0.81	3.08	17	4.9	3.9	530	731	< 2.0 ^f	7.9	349	2.9	< 0.20	NA	NA
03/09/18	393.31	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
05/16/18	393.31	80.92	312.39	6.41	13.5	172	3.39	2.94	12	3.0	2.4	340	630	< 0.01	4.82	268	2.0	< 0.20	NA	NA
11/07/18	393.31	81.22	312.09	6.97	13.4	171	3.92	1.78	8.6	2.3	2.2	198	407	< 0.01	4.0	228	1.8 J	0.20 UJ	NA	NA
08/08/19	393.31	81.52	311.79	6.02	14.6	231	5.05	NM	1.9	1.1	0.33	61	76	< 0.003	0.47	61	0.77	< 0.20	< 0.10	< 0.20
01/29/20	393.31	82.58	310.73	6.72	12.8	192	1.78	NM	4.3	3.1	< 5.0	247	335	< 2.50 ^f	< 10.0	130	NA	NA	0.27 ^e	< 0.20
07/21/20	393.31	83.04	310.27	5.60	14.8	208	0.96	NM	4.4	2.9	< 5.0	184	340	< 2.50 ^f	< 10.0	175	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e The laboratory noted that the result for diesel-range organics is due to overlap from gasoline or a gasoline-range product.

^f The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

Table B-12
Summary of Groundwater Sampling Results - Well PORT-MW-B
SeaTac Development Site
SeaTac, Washington

Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Field Parameters					Analytical Data											
				pH	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	GRO (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	N-hexane (µg/L)	Naphthalene (µg/L)	DRO (mg/L)	ORO (mg/L)	DRO after Silica Gel Cleanup (mg/L)	ORO after Silica Gel Cleanup (mg/L)
				MTCA Method A Groundwater Cleanup Levels^a					0.8^b/1.0^c	5.0	1,000	700	1,000	0.01	480^d	160	0.5	0.5	0.5	0.5
08/03/11	400.00 ^e	NM	NM	NM	NM	NM	NM	NM	0.20	1.3	< 1.0	13	3.4	< 0.01	< 1.0	13	0.28	< 0.25	NA	NA
03/20/14	400.00 ^e	89.70	310.30 ^f	6.55	12.3	267	6.16	NM	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	< 0.50 J	< 0.10	< 0.20	NA	NA
05/28/14	400.00 ^e	89.50	310.50 ^f	6.50	14.2	317	4.63	98.3	< 0.10	< 0.25	< 0.25	< 0.25	< 0.50	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
09/12/14	400.00 ^e	89.71	310.29 ^f	6.56	14.0	266	3.56	6.18	< 0.10	< 0.25	< 0.25	1.1	1.9	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/05/14	400.00 ^e	89.71	310.29 ^f	6.57	12.6	265	4.07	84.1	0.11	< 0.25	< 0.25	1.1	1.0	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
06/25/15	400.00 ^e	89.67	310.33 ^f	6.51	14.3	290	3.80	4.2	< 0.25	< 0.20	< 0.20	< 0.20	< 0.40	< 0.07 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
12/02/15	400.00 ^e	91.61	308.39 ^f	6.56	13.0	267	2.34	1.8	< 0.25	< 0.20	< 0.20	0.26	0.40 J	< 0.07 ^g	< 0.20	2.3 J	< 0.10	0.49	NA	NA
05/04/16	400.00 ^e	90.55	309.45 ^f	6.72	13.2	219	2.59	7.4	< 0.10	0.08 J	< 0.20	0.74	0.50	< 0.20 ^g	< 0.20	0.83 J	< 0.10	< 0.20	NA	NA
11/16/16	400.00 ^e	90.31	309.69 ^f	6.70	13.1	192	3.97	11.7	< 0.10	0.03 J	< 0.20	0.04 J	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
05/02/17	400.00 ^e	89.65	310.35 ^f	6.54	12.9	107	3.85	2.6	< 0.10	0.21	< 0.20	1.2	< 0.40	< 0.20 ^g	< 0.20	1.4	< 0.10	< 0.20	NA	NA
11/15/17	400.00 ^e	88.67	311.33 ^f	6.78	13.0	199	5.09	2.4	< 0.10	< 0.20	< 0.20	0.36	< 0.40	< 0.20 ^g	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
01/18/18	400.00 ^e	88.17	311.83 ^f	6.82	12.6	173	1.39	3.4	0.15	0.47	< 0.20	2.7	< 0.40	< 0.20 ^g	< 0.20	3.2	0.17	< 0.20	NA	NA
03/09/18	400.00 ^e	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
05/16/18	400.00 ^e	87.64	312.36 ^f	6.40	13.8	103	3.36	2.4	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
11/07/18	400.00 ^e	87.91	312.09 ^f	6.80	13.1	103	4.92	1.3	< 0.10	< 0.20	< 0.20	< 0.20	< 0.40	< 0.01	< 0.20	< 0.50	< 0.10	< 0.20	NA	NA
08/08/19	400.00 ^e	89.77	310.73 ^f	5.37	14.5	174	3.15	NM	< 0.10	< 0.20	< 0.20	< 0.20	< 0.60	< 0.003	0.11 J	< 0.50	0.14	< 0.20	< 0.10	< 0.20
01/29/20	399.83	105.60	294.23	6.66	12.0	166	8.70	NM	< 0.10	< 0.10	< 0.50	< 0.25	< 0.75	< 0.01	< 1.0	< 1.0	NA	NA	NA	NA
07/21/20	399.83	89.77	310.06	5.37	14.5	174	3.15	NM	< 0.10	< 0.20	< 1.0	< 0.50	< 1.50	< 0.01	< 2.0	< 2.0	NA	NA	NA	NA

Notes:

Values in bold and red exceed MTCA Method A Cleanup Levels.

NS = Not sampled

NM = Not measured

NA = Not analyzed

mg/L = Milligrams per liter

µg/L = Micrograms per liter

NTU = Nephelometric turbidity unit

µmhos/cm = Micromhos per centimeter

°C = Degrees Celsius

J = Laboratory estimated value

DRO = Diesel-range organics

ORO = Oil-range organics

GRO = Gasoline-range organics

EDB = 1,2-dibromoethane

^a Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Tables 720-1, Method A Cleanup Levels for Groundwater.

^b When benzene is present.

^c When benzene is not present.

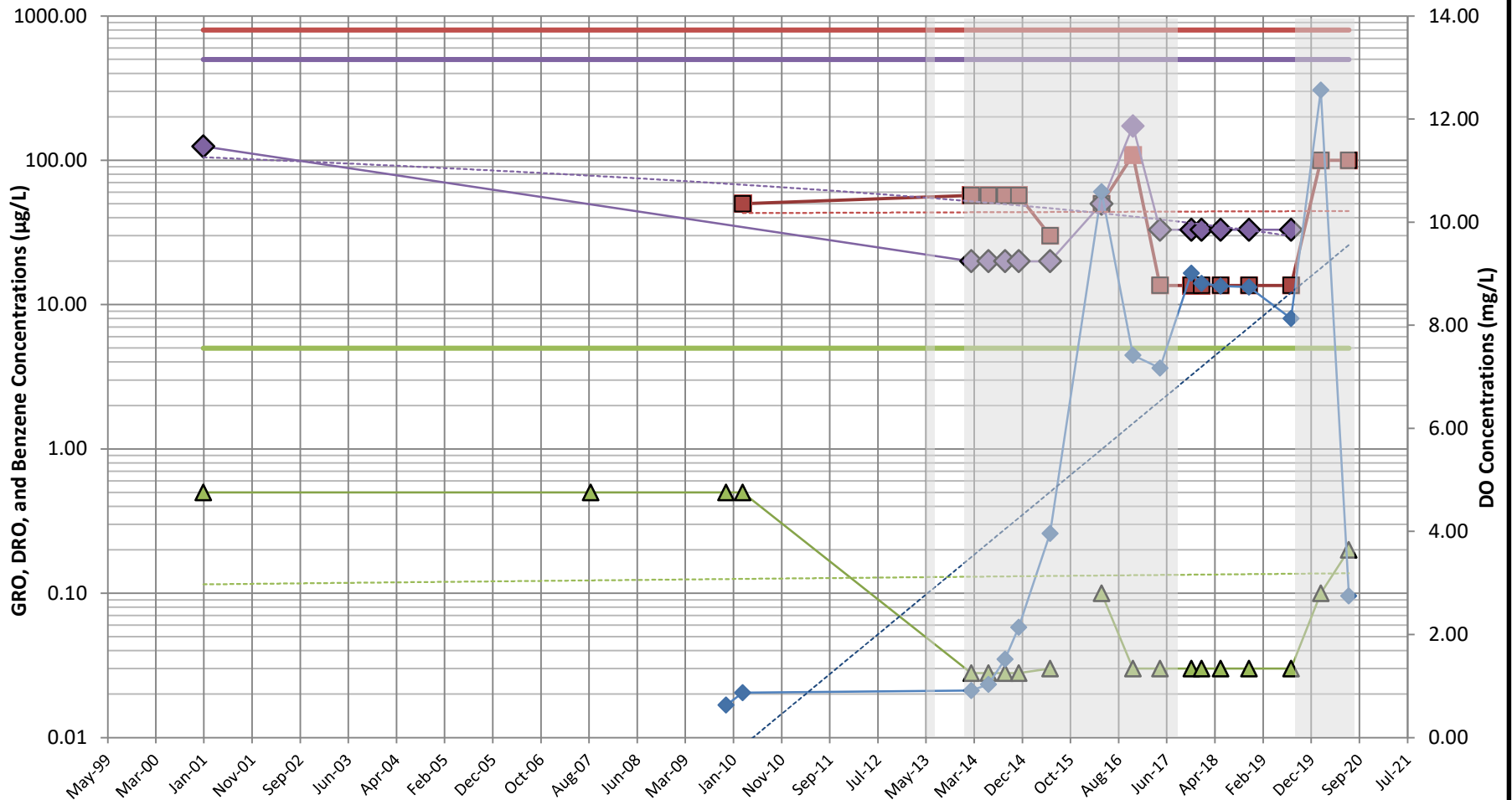
^d Method B cleanup level used because Method A cleanup level is not established. Standard formula values, direct contact Method B groundwater cleanup levels as published on Ecology's Cleanup Level and Risk Calculation (CLARC) on-line database (May 2019).

^e Top of casing elevation was not surveyed; elevation was estimated by Golder Associates, Inc.

^f Estimated elevation.

^g The analyte was not detected at or above the method detection limit (MDL); however, the MDL exceeded the cleanup level.

MW-06

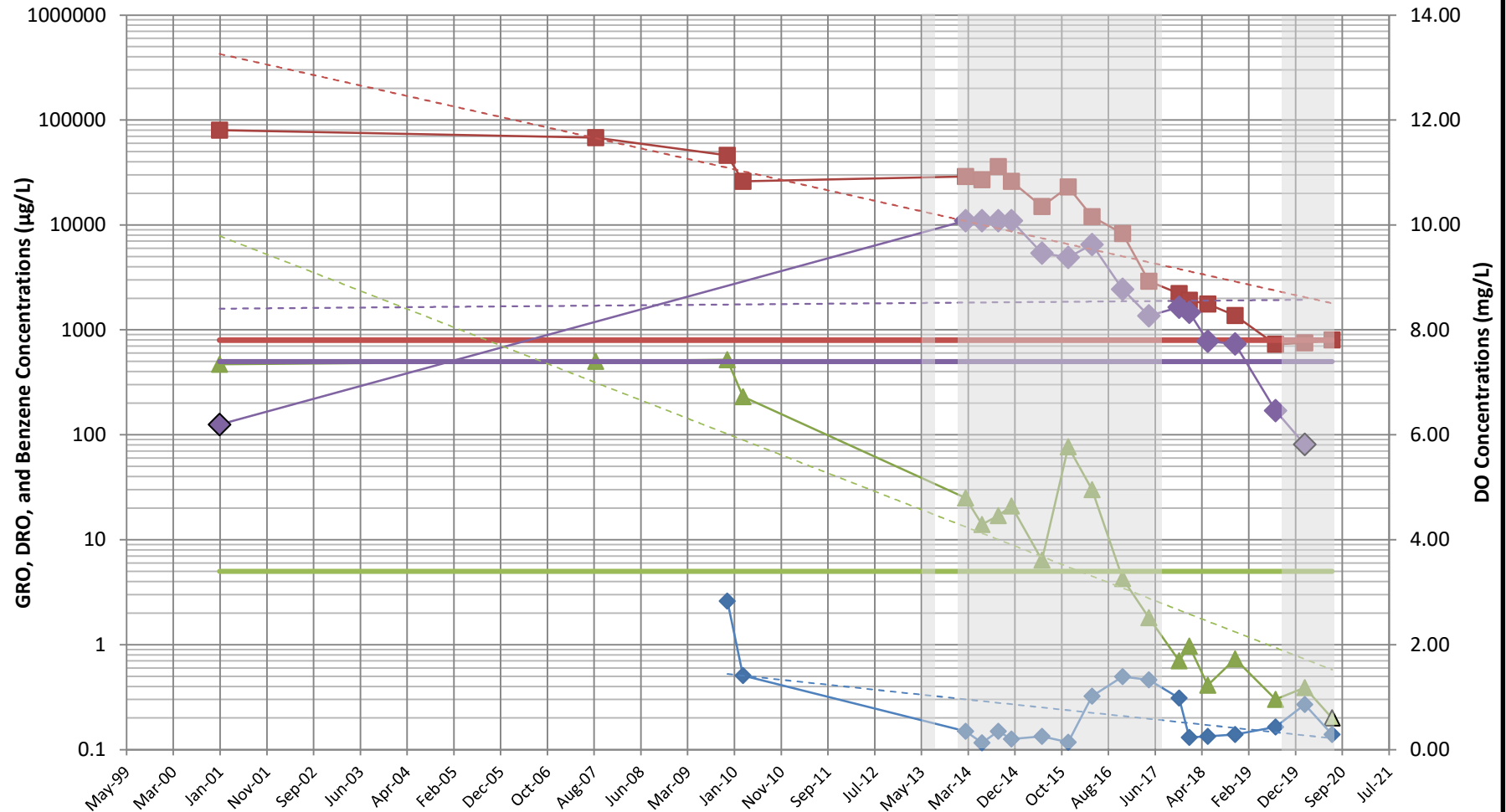


Legend

- GRO Concentrations
- GRO Cleanup Level (800 µg/L)
- ◆ DRO Non-Detects
- DRO Cleanup Level (500 µg/L)
- ▲ Benzene Concentrations
- Benzene Cleanup Level (5 µg/L)
- - - GRO Trendline
- - - Benzene Trendline
- GRO Non-Detects
- ◆ DRO Concentrations
- ▲ Benzene Non-Detects
- ◆ Dissolved Oxygen (DO) Concentrations
- - - DRO Trendline
- - - DO Trendline
- IAS - SVE system operating

FIGURE B-1
GRO, Benzene, & DRO Concentrations in
MW-06
SeaTac Development Site

MW-07



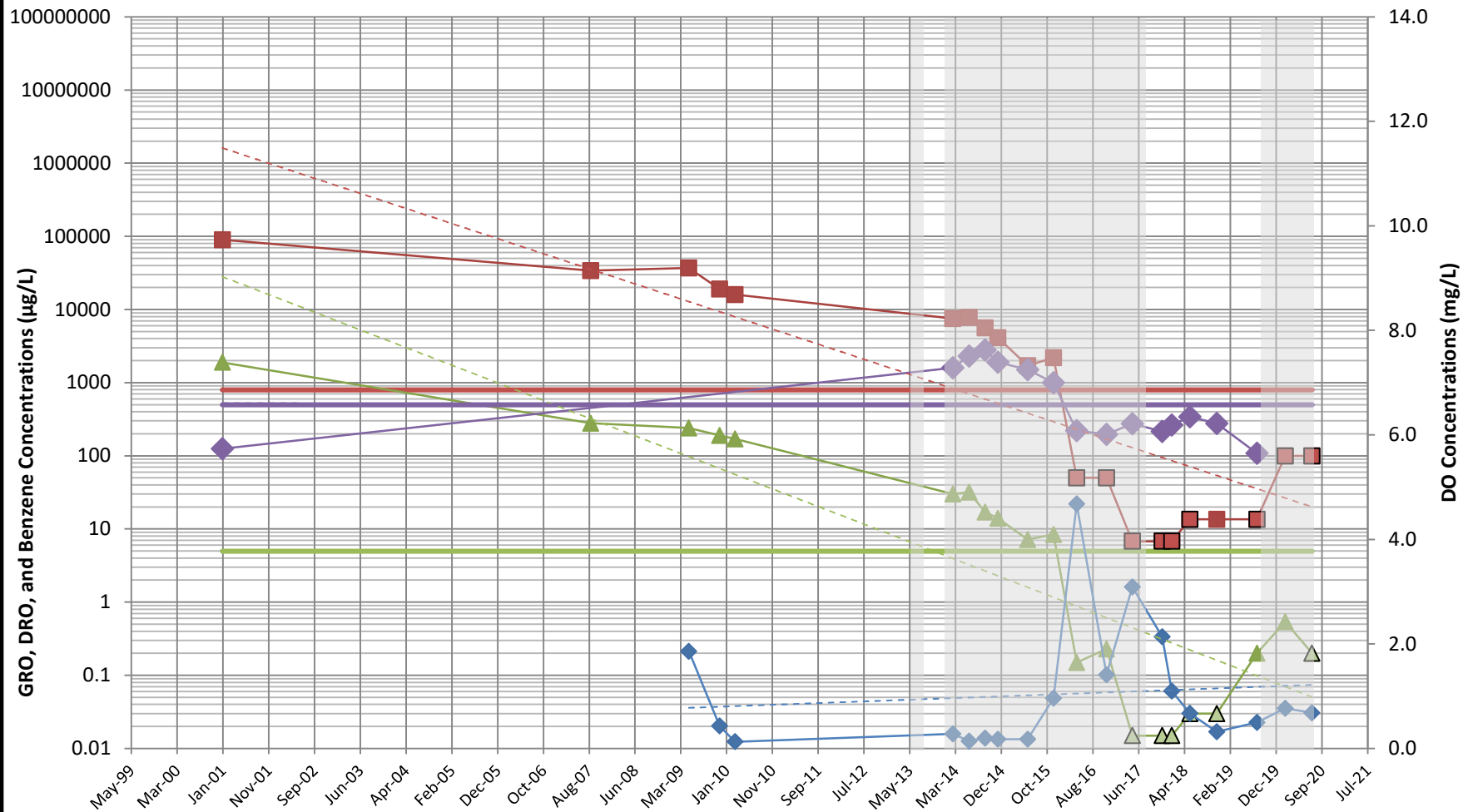
Legend

- GRO Concentrations
- ▲ Benzene Concentrations
- Benzene Cleanup Level (5 µg/L)
- ◆ DRO Non-Detects
- ◆ Dissolved Oxygen (DO) Concentrations
- - - Benzene Trendline
- - - DO Trendline
- GRO Cleanup Level (800 µg/L)
- ▲ Benzene Non-Detects
- ◆ DRO Concentrations
- DRO Cleanup Level (500 µg/L)
- - - GRO Trendline
- - - DRO Trendline
- IAS - SVE system operating

Note: DRO result for groundwater sample collected in January 2020 was analyzed for DRO after silica gel cleanup.

FIGURE B-2
GRO, Benzene, & DRO Concentrations in
MW-07
SeaTac Development Site

MW-09

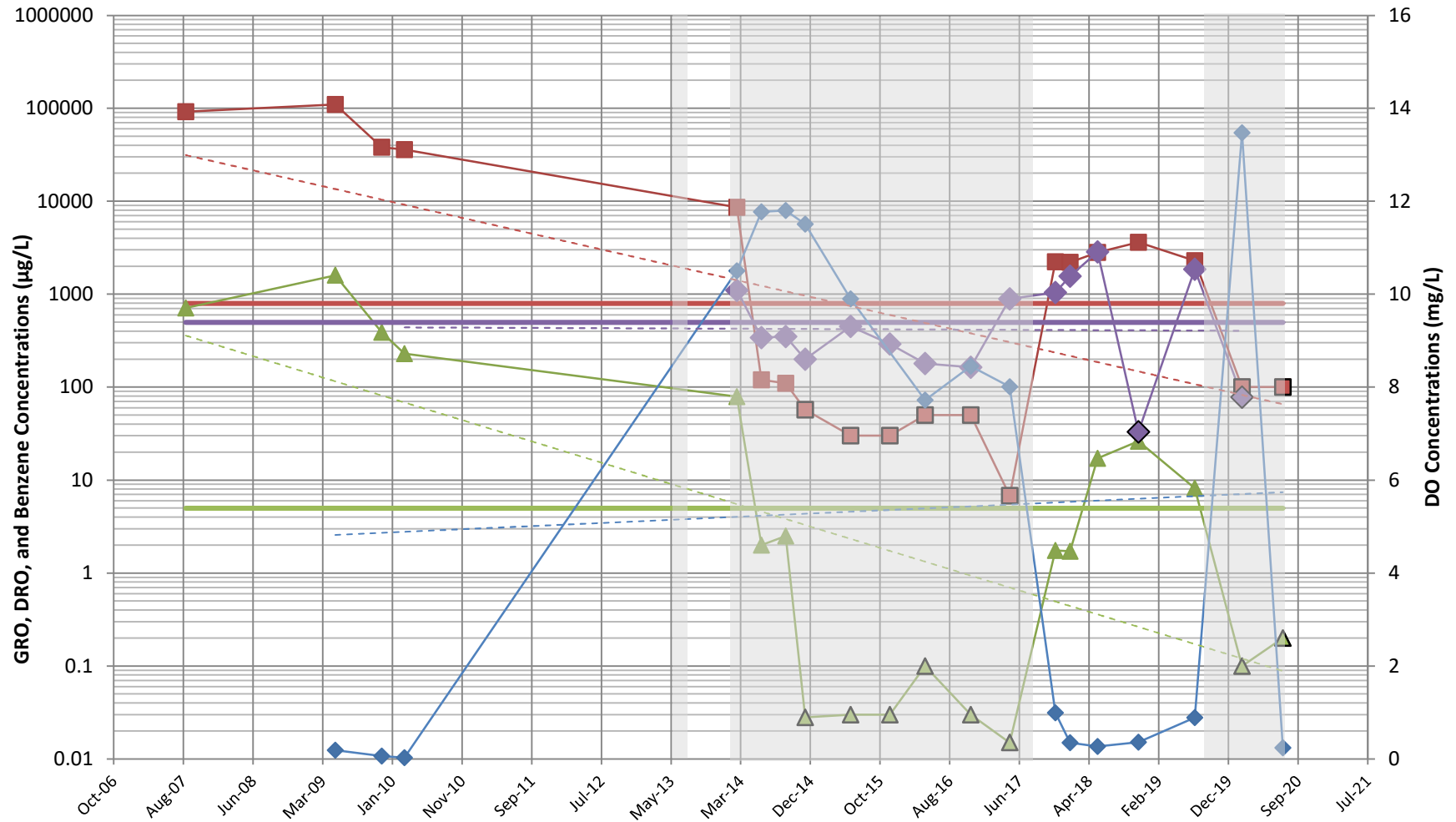


Legend

- GRO Concentrations
 - Benzene Concentrations
 - △— Benzene Non-Detects
 - ◇— DRO Concentrations
 - ◇— DRO Non-Detects
 - - - GRO Trendline
 - - - Benzene Trendline
 - - - DRO Trendline
 - - - DO Trendline
 - GRO Non-Detects
 - △ Benzene Non-Detects
 - ◇ DRO Non-Detects
 - ◇ Dissolved Oxygen (DO) Concentrations
- IAS - SVE system operating

FIGURE B-3
GRO, Benzene, & DRO Concentrations in
MW-09
SeaTac Development Site

MW-12



Legend

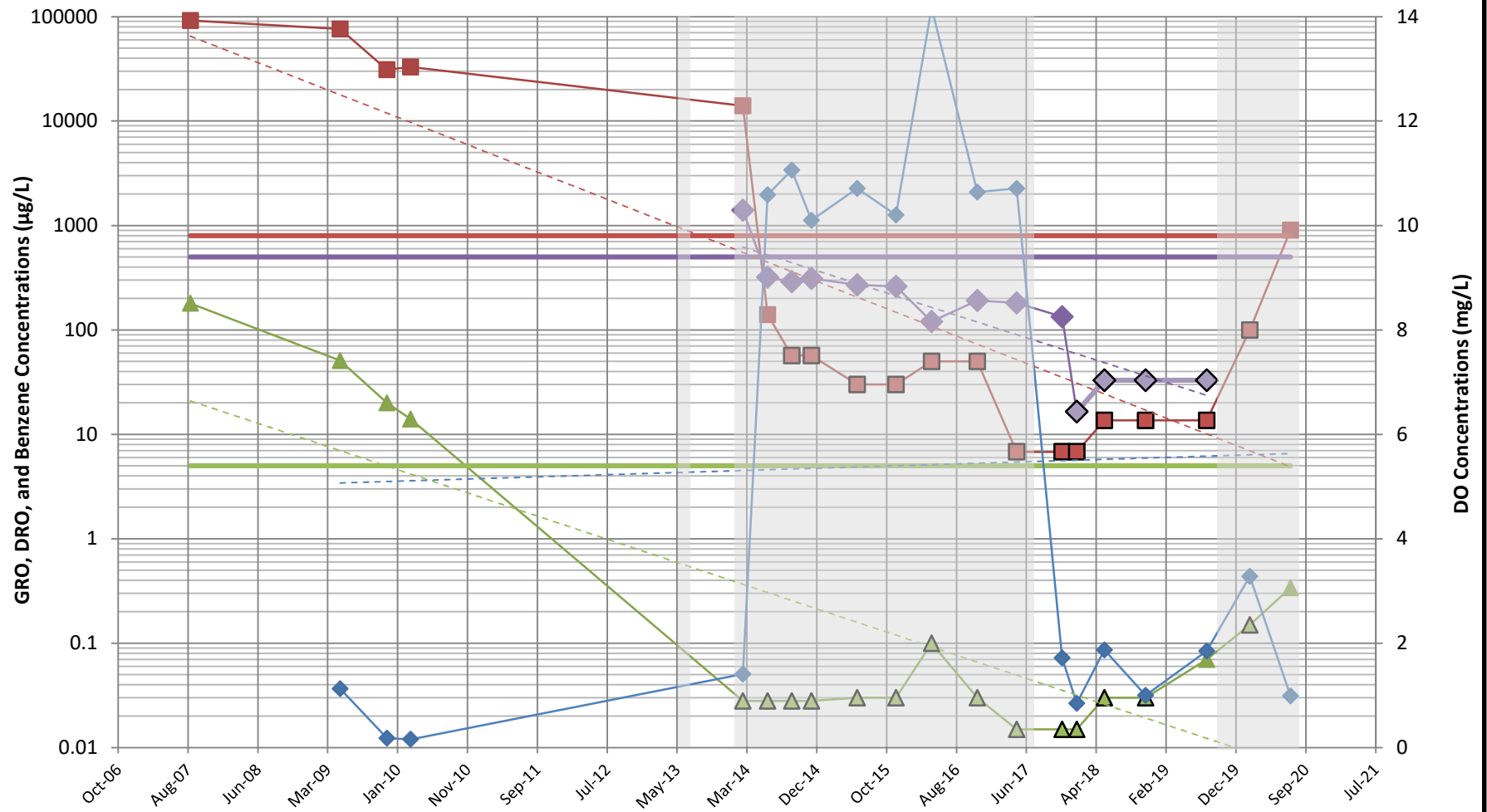
- GRO Concentrations
- GRO Cleanup Level (800 µg/L)
- ▲ Benzene Non-Detects
- ◆ DRO Concentrations
- DRO Cleanup Level (500 µg/L)
- - - GRO Trendline
- - - DRO Trendline
- GRO Non-Detects
- ▲ Benzene Concentrations
- Benzene Cleanup Level (5 µg/L)
- ◆ DRO Non-Detects
- Dissolved Oxygen (DO) Concentrations
- - - Benzene Trendline
- - - DO Trendline
- IAS - SVE system operating

Note: DRO result for groundwater sample collected in January 2020 was analyzed for DRO after silica gel cleanup.

FIGURE B-4

GRO, Benzene, and DRO Concentrations in MW-12 SeaTac Development Site

MW-13

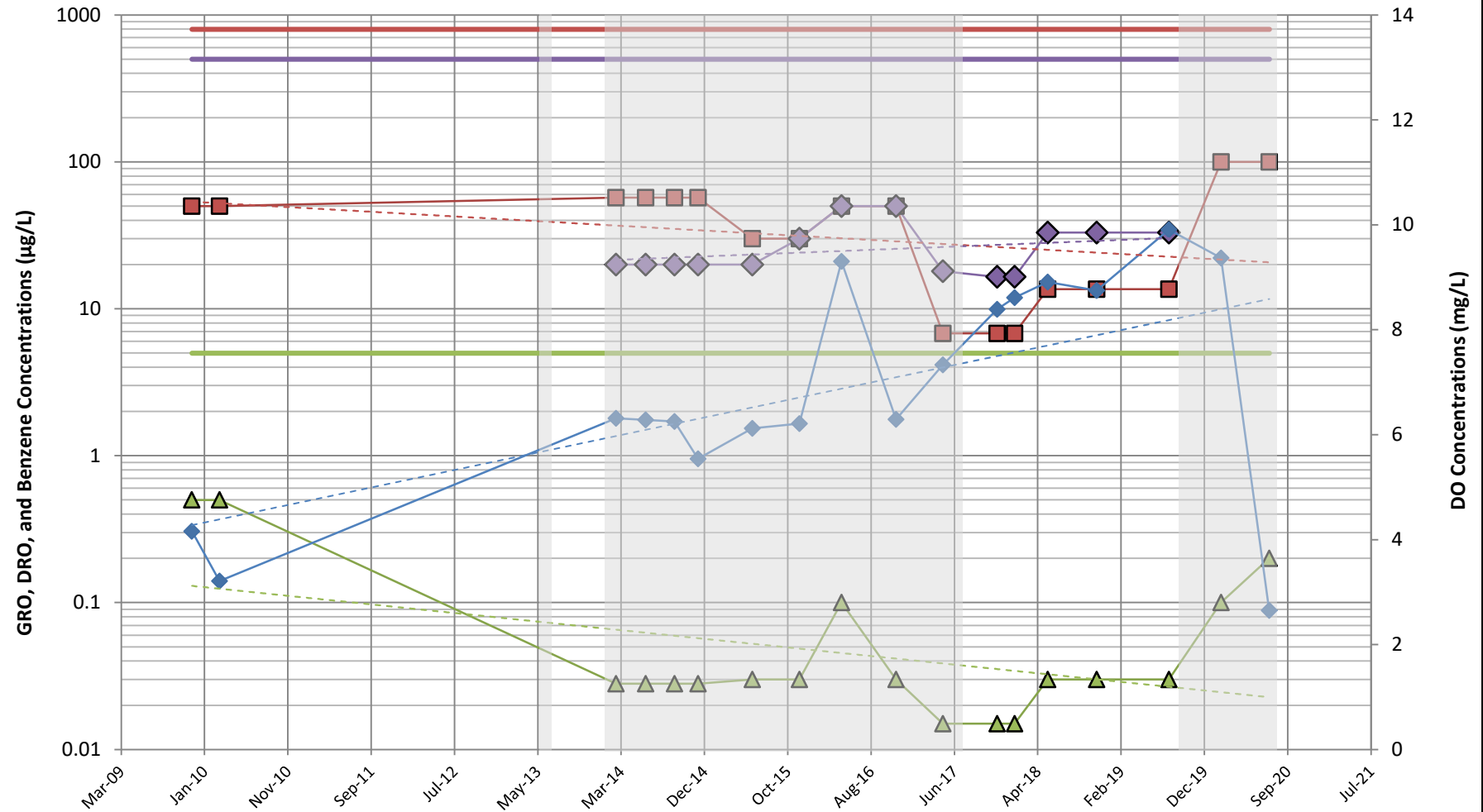


Legend

- GRO Concentrations
- GRO Cleanup Level (800 $\mu\text{g/L}$)
- ▲ Benzene Non-Detects
- ◆ DRO Concentrations
- DRO Cleanup Level (500 $\mu\text{g/L}$)
- - - GRO Trendline
- - - Diesel Trendline
- GRO Non-Detects
- ▲ Benzene Concentrations
- ◆ DRO Non-Detects
- ◆ Dissolved Oxygen (DO) Concentrations
- - - Benzene Trendline
- - - DO Trendline
- IAS - SVE system operating

FIGURE B-5
GRO, Benzene, & DRO Concentrations in
MW-13
SeaTac Development Site

MW-21

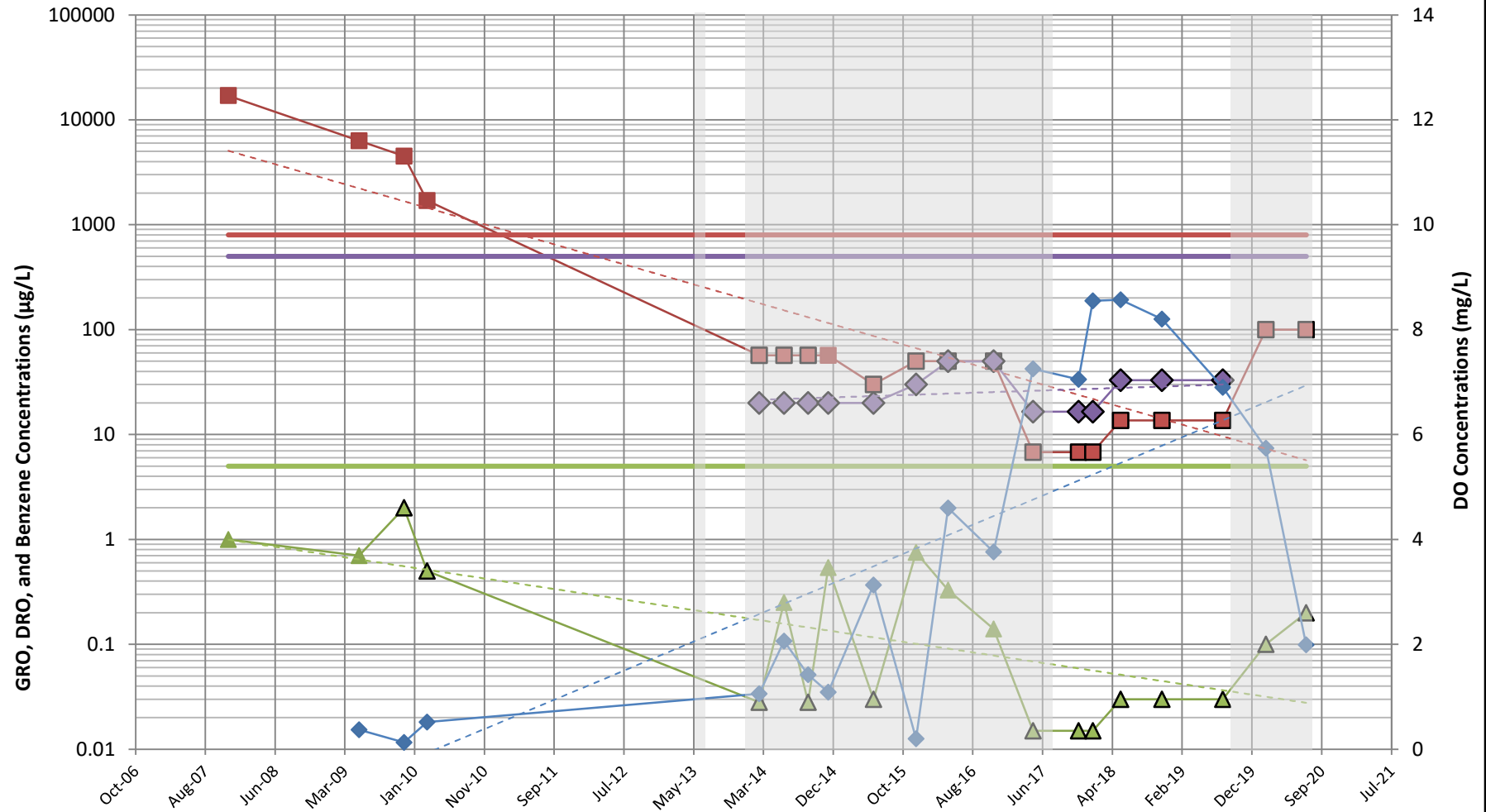


Legend

- GRO Concentrations
- GRO Cleanup Level (800 ug/L)
- ▲ Benzene Non-Detects
- ◆ DRO Concentrations
- DRO Cleanup Level (500 ug/L)
- - - GRO Trendline
- - - DRO Trendline
- GRO Non-Detects
- ▲ Benzene Concentrations
- ◆ DRO Non-Detects
- Benzene Cleanup Level (5 ug/L)
- - - Benzene Trendline
- - - DO Trendline
- IAS - SVE system operating

FIGURE B-10
GRO, Benzene, & DRO Concentrations in
MW-21
SeaTac Development Site

MW-17A



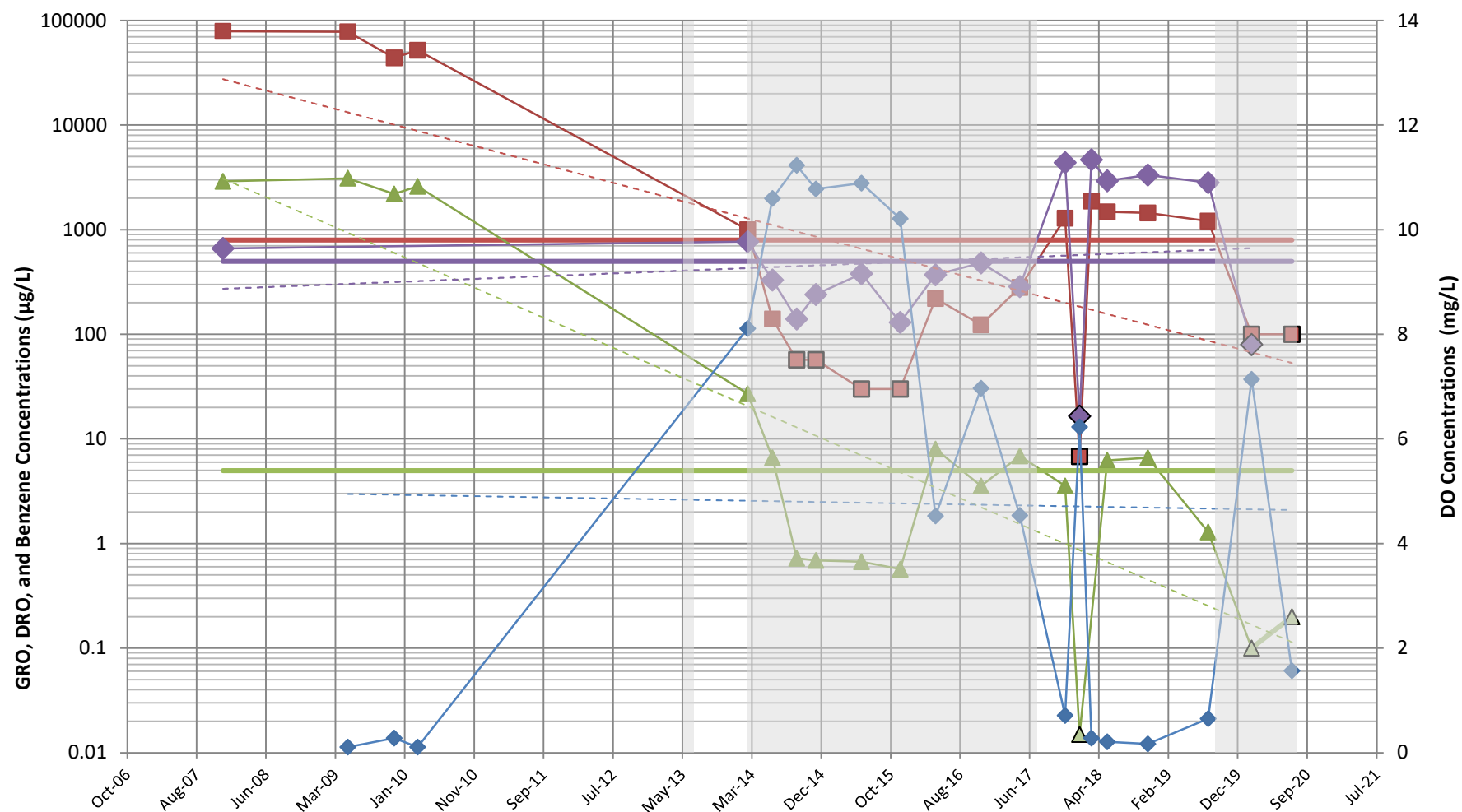
Legend

- GRO Concentrations
- GRO Cleanup Level (800 ug/L)
- ▲ Benzene Non-Detects
- ◆ DRO Concentrations
- DRO Cleanup Level (500 ug/L)
- - - GRO Trendline
- - - DRO Trendline
- GRO Non-Detects
- ▲ Benzene Concentrations
- Benzene Cleanup Level (5 ug/L)
- ◆ DRO Non-Detects
- ◆ Dissolved Oxygen (DO) Concentrations
- - - Benzene Trendline
- - - DO Trendline
- IAS - SVE system operating

FIGURE B-6

GRO, Benzene, & DRO Concentrations in MW-17A
SeaTac Development Site

MW-18



Legend

- GRO Concentrations
- GRO Cleanup Level (800 µg/L)
- ▲ Benzene Concentrations
- Benzene Cleanup Level (5 µg/L)
- ◆ DRO Concentrations
- DRO Cleanup Level (500 µg/L)
- - - GRO Trendline
- - - DRO Trendline
- GRO Non-Detects
- ▲ Benzene Non-Detects
- ◆ DRO Non-Detects
- ◆ Dissolved Oxygen (DO) Concentrations
- - - Benzene Trendline
- - - DO Trendline

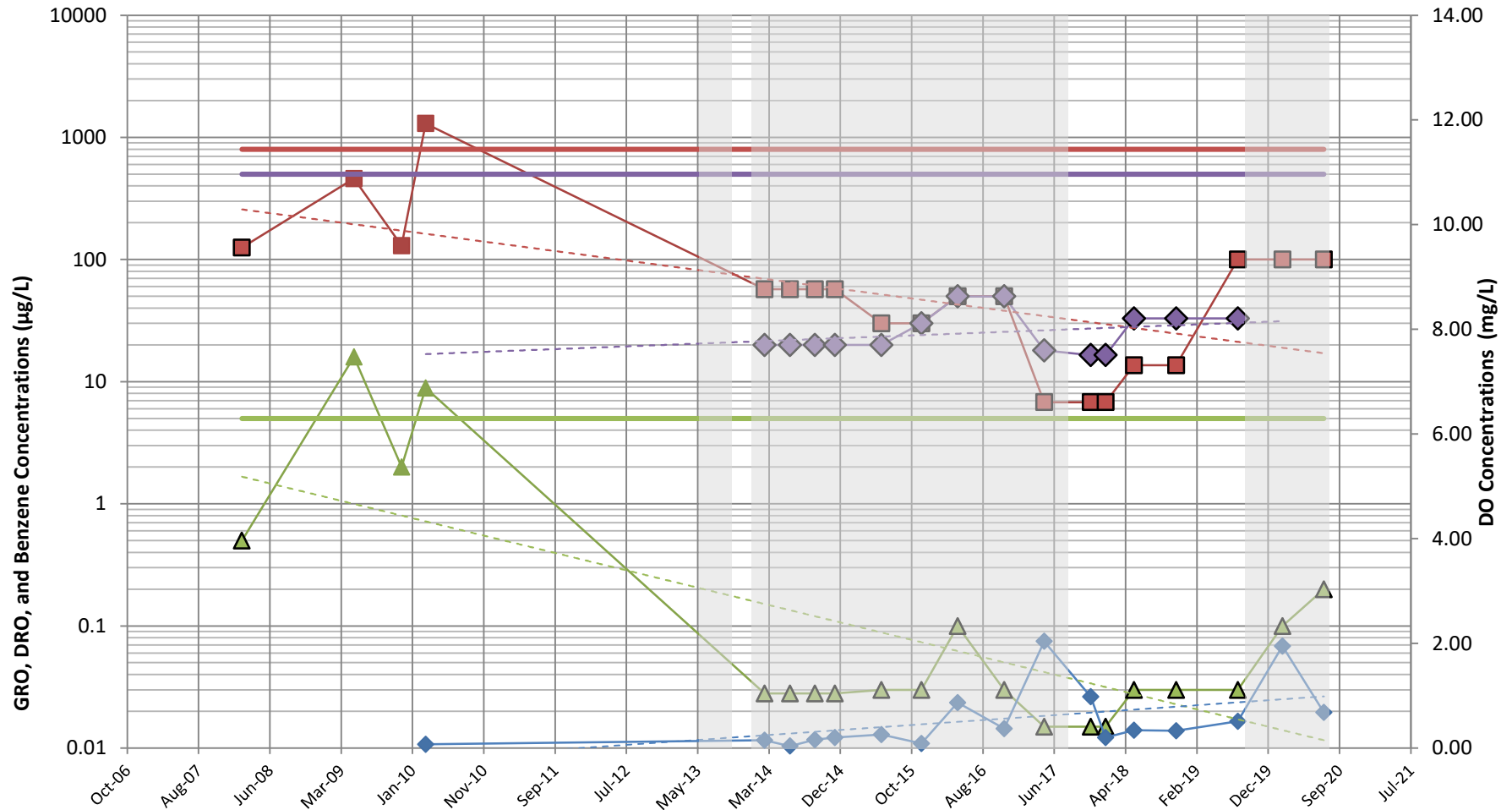
■ IAS - SVE system operating

Note: DRO result for groundwater sample collected in January 2020 was analyzed for DRO after silica gel cleanup.

FIGURE B-7

GRO, Benzene, & DRO Concentrations in MW-18
SeaTac Development Site

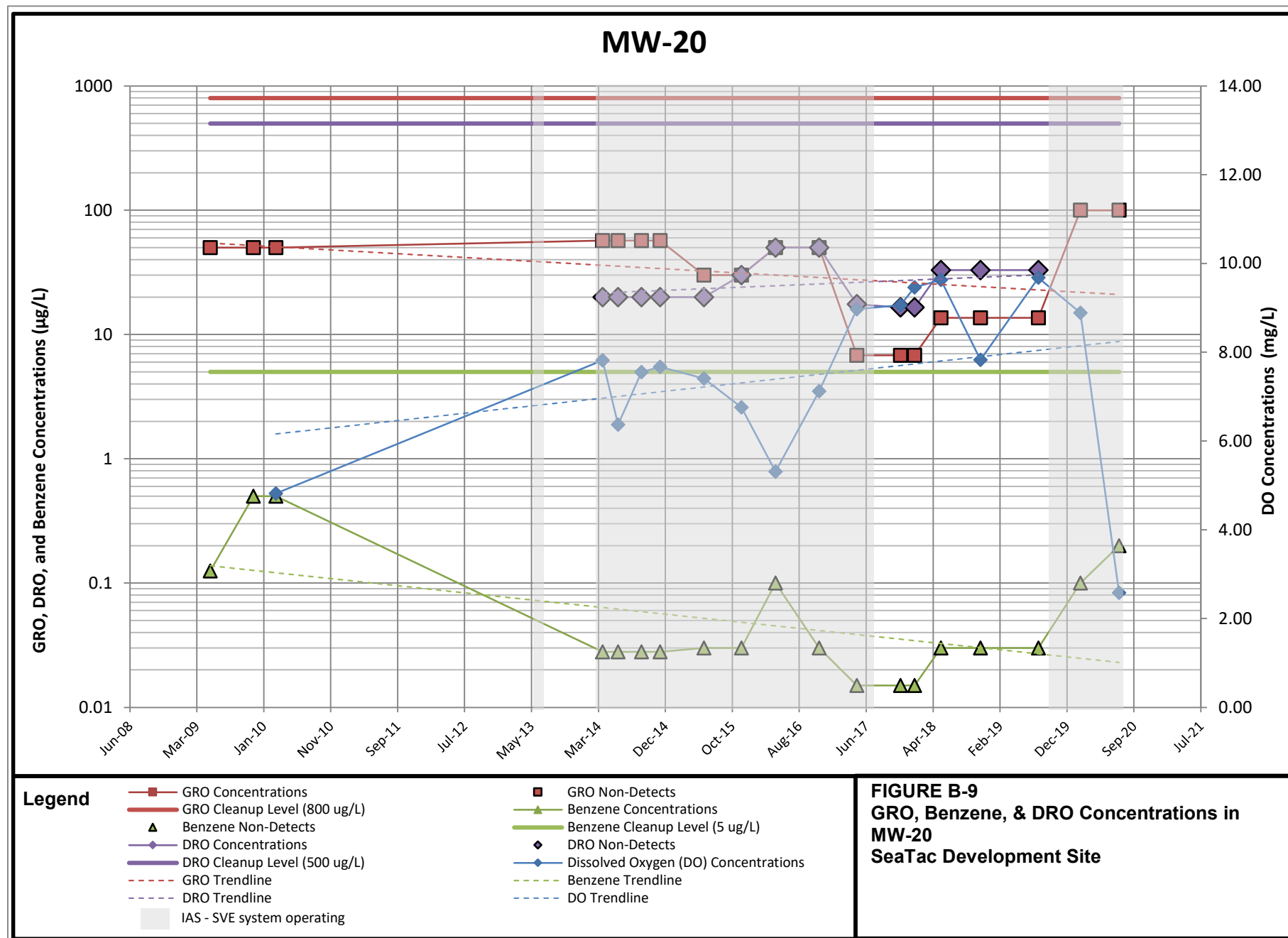
MW-19



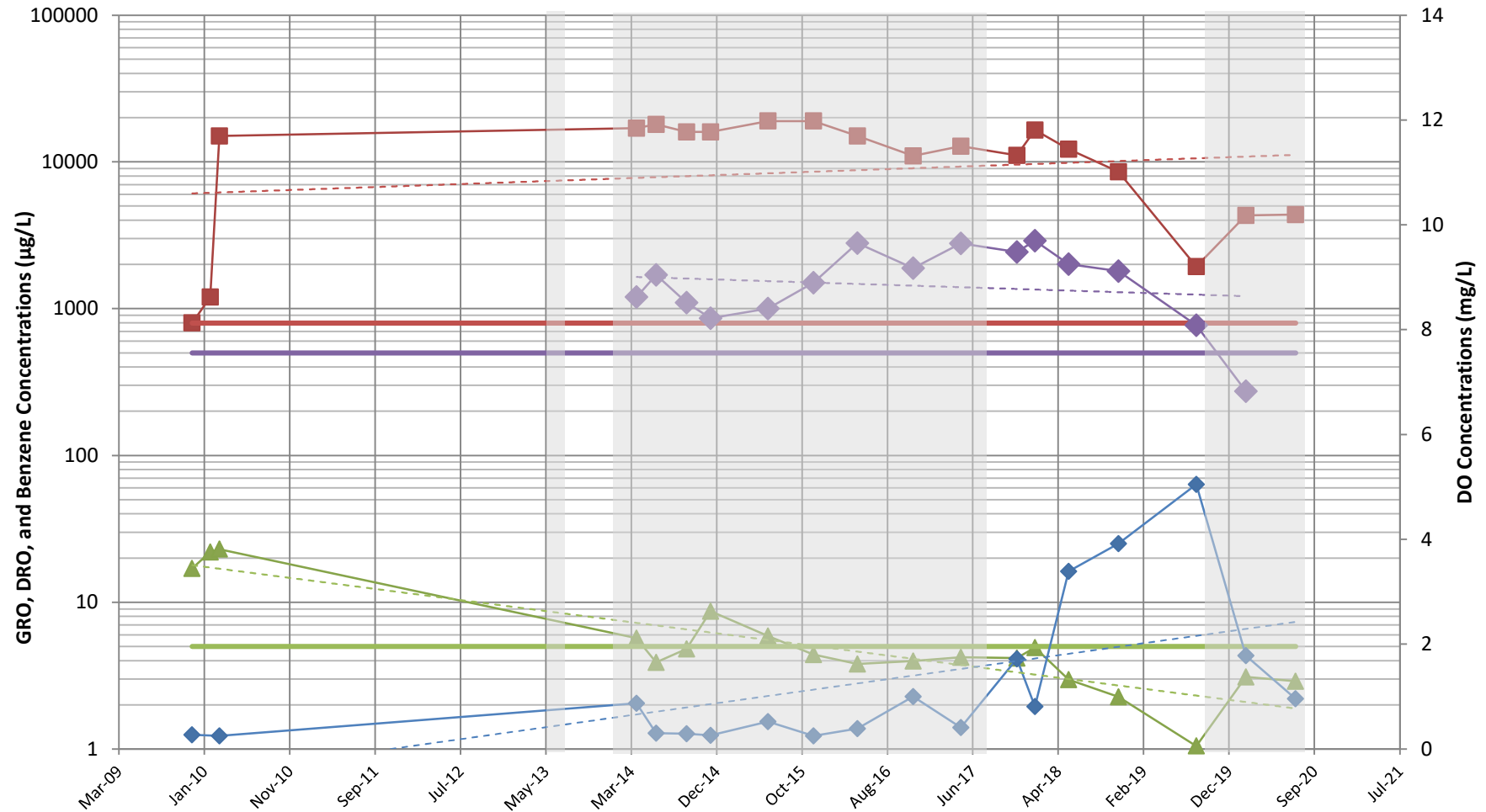
Legend

- GRO Concentrations
- GRO Cleanup Level (800 ug/L)
- ▲ Benzene Non-Detects
- ◆ DRO Concentrations
- DRO Cleanup Level (500 ug/L)
- - - GRO Trendline
- - - DRO Trendline
- GRO Non-Detects
- ▲ Benzene Concentrations
- ◆ DRO Non-Detects
- Benzene Cleanup Level (5 ug/L)
- Dissolved Oxygen (DO) Concentrations
- - - Benzene Trendline
- - - DO Trendline
- IAS - SVE system operating

FIGURE B-8
GRO, Benzene, & DRO Concentrations in
MW-19
SeaTac Development Site



MW-22

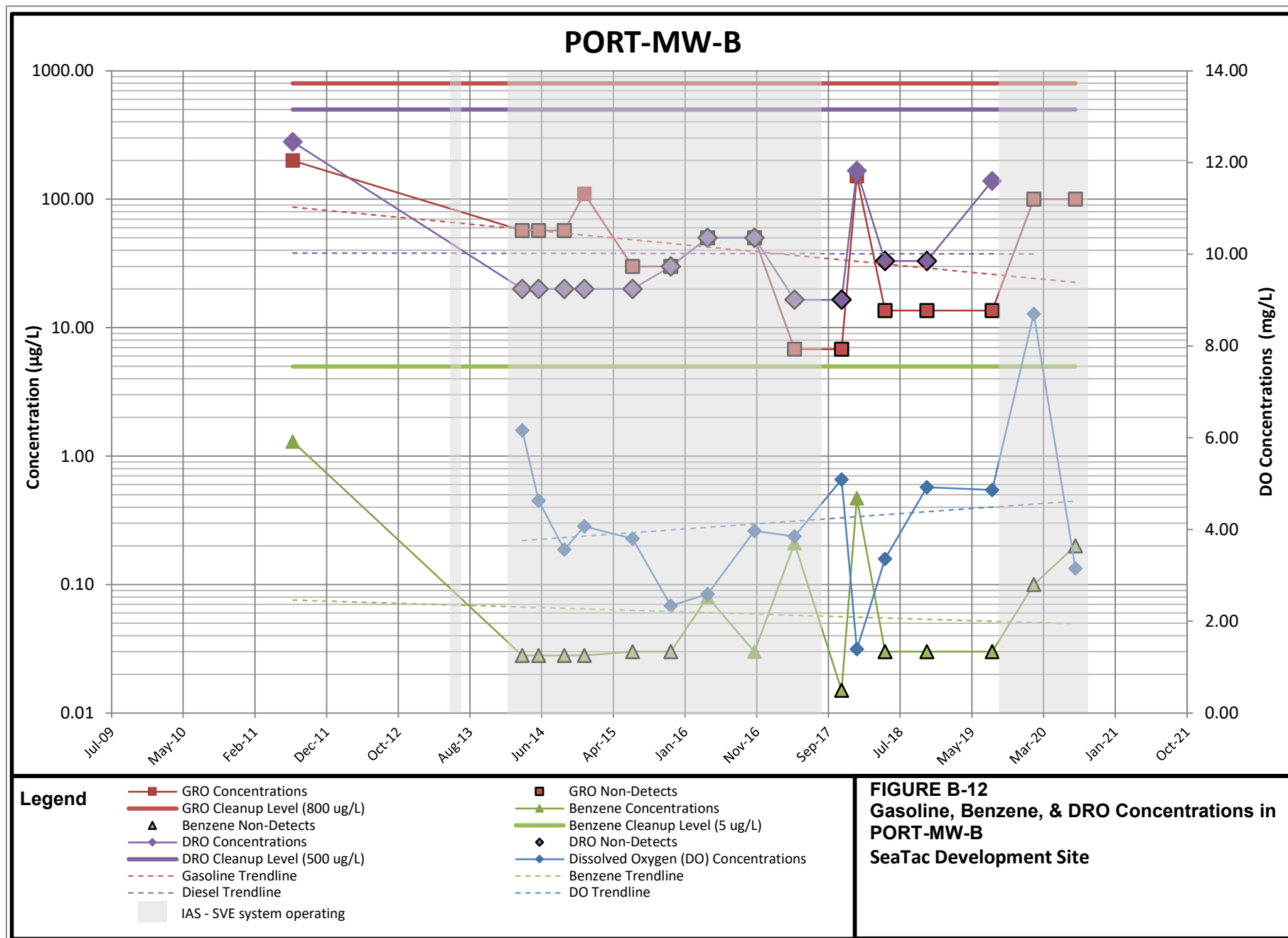


Legend

- GRO Concentrations
- ▲ Benzene Concentrations
- ◆ DRO Concentrations
- ◆ Dissolved Oxygen (DO) Concentrations
- Benzene Trendline
- DO Trendline
- IAS - SVE system operating
- GRO Cleanup Level (800 µg/L)
- Benzene Cleanup Level (5 µg/L)
- DRO Cleanup Level (500 µg/L)
- GRO Trendline
- DRO Trendline

Note: DRO result for groundwater sample collected in January 2020 was analyzed for DRO after silica gel cleanup.

FIGURE B-11
GRO, Benzene, & DRO Concentrations in
MW-22
SeaTac Development Site



APPENDIX C

LABORATORY REPORTS

SVE SYSTEM EMISSION SAMPLES



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

SLR International
Mike Staton
22118 20th Ave SE. G 202
Bothell, WA 98021

RE: SeatTac Development Site
Work Order Number: 1912164

December 17, 2019

Attention Mike Staton:

Fremont Analytical, Inc. received 1 sample(s) on 12/10/2019 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method TO-15

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: SLR International
Project: SeatTac Development Site
Work Order: 1912164

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1912164-001	System Emissions	12/09/2019 1:55 PM	12/10/2019 4:53 PM

CLIENT: SLR International
Project: SeatTac Development Site

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

Note: Gasoline Range Organics reported in ug/m3 should be considered an estimate. The estimated molecular weight of gasoline used in the equation = 100

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Client: SLR International
WorkOrder: 1912164
Project: SeatTac Development Site

Client Sample ID: System Emissions
Lab ID: 1912164-001A
Sample Type: Summa Canister

Date Sampled: 12/9/2019
Date Received: 12/10/2019

Analyte	Concentration	Reporting Limit	Qual	Method	Date/Analyst
<u>Volatile Organic Compounds by EPA Method TO-15</u>					
	(ppbv)	(ug/m ³)	(ppbv)	(ug/m ³)	
1,2-Dibromoethane (EDB)	4.52	34.7	0.200	1.54	EPA-TO-15 12/11/2019 AD
Benzene	78.6	251	0.895	2.86	EPA-TO-15 12/11/2019 AD
Ethylbenzene	27.5	119	4.00	17.4	EPA-TO-15 12/11/2019 AD
Gasoline Range Organics	67,000	274,000	10.0	40.9	E EPA-TO-15 12/11/2019 AD
m,p-Xylene	59.5	259	8.00	34.7	EPA-TO-15 12/11/2019 AD
Naphthalene	0.668	3.50	0.100	0.524	EPA-TO-15 12/11/2019 AD
o-Xylene	45.5	198	4.00	17.4	EPA-TO-15 12/11/2019 AD
Toluene	169	636	4.00	15.1	EPA-TO-15 12/11/2019 AD
Surr: 4-Bromofluorobenzene	99.6 %Rec	--	70-130	--	EPA-TO-15 12/11/2019 AD

NOTES:

E - Estimated value. The amount exceeds the linear working range of the instrument.



Date: 12/17/2019

Work Order: 1912164
CLIENT: SLR International
Project: SeatTac Development Site

QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method TO-15**

Sample ID: LCS-R55992		SampType: LCS			Units: ppbv		Prep Date: 12/10/2019			RunNo: 55992		
Client ID: LCSW		Batch ID: R55992			Analysis Date: 12/10/2019			SeqNo: 1114880				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	84.4	1.00	72.00	0	117	70	130				
Benzene	1.99	0.0895	2.000	0	99.6	70	130				
Toluene	1.79	0.400	2.000	0	89.3	70	130				
1,2-Dibromoethane (EDB)	2.12	0.200	2.000	0	106	70	130				
Ethylbenzene	1.67	0.400	2.000	0	83.5	70	130				
m,p-Xylene	3.91	0.800	4.000	0	97.7	70	130				
o-Xylene	1.52	0.400	2.000	0	76.1	70	130				
Naphthalene	2.20	0.100	2.000	0	110	70	130				
Surr: 4-Bromofluorobenzene	4.08		4.000		102	70	130				

Sample ID: MB-R55992		SampType: MBLK			Units: ppbv		Prep Date: 12/10/2019			RunNo: 55992		
Client ID: MBLKW		Batch ID: R55992						Analysis Date: 12/10/2019			SeqNo: 1114881	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	1.00									
Benzene	ND	0.0895									
Toluene	ND	0.400									
1,2-Dibromoethane (EDB)	ND	0.200									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	0.800									
o-Xylene	ND	0.400									
Naphthalene	ND	0.100									
Surr: 4-Bromofluorobenzene	3.28		4.000		82.0	70	130				

Sample ID: 1912164-001AREP		SampType: REP			Units: ppbv		Prep Date: 12/11/2019			RunNo: 55992		
Client ID: System Emissions		Batch ID: R55992						Analysis Date: 12/11/2019			SeqNo: 1114884	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	39,400	1.00						39,800	0	30	E
Benzene	47.7	0.0895						47.51	0.444	30	E

Work Order: 1912164
CLIENT: SLR International
Project: SeatTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: 1912164-001AREP		SampType: REP		Units: ppbv		Prep Date: 12/11/2019			RunNo: 55992		
Client ID: System Emissions		Batch ID: R55992					Analysis Date: 12/11/2019			SeqNo: 1114884	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	95.9	0.400						95.12	0.841	30	E
1,2-Dibromoethane (EDB)	4.34	0.200						4.517	4.02	30	
Ethylbenzene	20.7	0.400						20.25	2.02	30	E
m,p-Xylene	42.2	0.800						42.68	1.23	30	E
o-Xylene	28.1	0.400						28.43	1.25	30	E
Naphthalene	0.683	0.100						0.6681	2.23	30	
Surr: 4-Bromofluorobenzene	5.98		4.000		150	70	130		0		S

NOTES:

S - Outlying surrogate recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).

E - Estimated value. The amount exceeds the linear working range of the instrument.

Client Name: **SLR**
 Logged by: **Carissa True**

Work Order Number: **1912164**
 Date Received: **12/10/2019 4:53:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☐ No ☒ NA ☐
Air samples
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
 6. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
 7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☐ No ☐ NA ☒
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

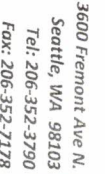
18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	<u>Mike Staton</u>	Date:	<u>12/11/2019</u>
By Whom:	<u>Carissa True</u>	Via:	☐ eMail ☒ Phone ☐ Fax ☐ In Person
Regarding:	<u>Confirmation of reporting limits.</u>		
Client Instructions:	<u>TO-15 scan, add Gx and naphthalene</u>		

19. Additional remarks:

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

SLR International
Mike Staton
22118 20th Ave SE. G 202
Bothell, WA 98021

RE: SeaTac Development Site
Work Order Number: 2003140

March 17, 2020

Attention Mike Staton:

Fremont Analytical, Inc. received 1 sample(s) on 3/10/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method TO-15

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: SLR International
Project: SeaTac Development Site
Work Order: 2003140

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2003140-001	SVE-0320	03/09/2020 1:29 PM	03/10/2020 8:36 AM

CLIENT: SLR International
Project: SeaTac Development Site

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Client: SLR International
WorkOrder: 2003140
Project: SeaTac Development Site

Client Sample ID: SVE-0320
Lab ID: 2003140-001A
Sample Type: Summa Canister

Date Sampled: 3/9/2020
Date Received: 3/10/2020

Analyte	Concentration	Reporting Limit	Qual	Method	Date/Analyst
<u>Volatile Organic Compounds by EPA Method TO-15</u>					
	(ppbv)	(ug/m ³)	(ppbv)	(ug/m ³)	
1,2-Dibromoethane (EDB)	<0.200	<1.54	0.200	1.54	EPA-TO-15 03/17/2020 IH
Benzene	4.20	13.4	0.0895	0.286	EPA-TO-15 03/17/2020 IH
Ethylbenzene	2.32	10.1	0.400	1.74	EPA-TO-15 03/17/2020 IH
Gasoline Range Organics	2,120	8,680	1.00	4.09	E EPA-TO-15 03/17/2020 IH
m,p-Xylene	16.3	71.0	0.800	3.47	EPA-TO-15 03/17/2020 IH
Naphthalene	0.651	3.41	0.100	0.524	EPA-TO-15 03/17/2020 IH
o-Xylene	14.0	60.6	0.400	1.74	EPA-TO-15 03/17/2020 IH
Toluene	15.0	56.4	0.400	1.51	EPA-TO-15 03/17/2020 IH
Surr: 4-Bromofluorobenzene	109 %Rec	--	70-130	--	EPA-TO-15 03/17/2020 IH

NOTES:

E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 2003140
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: LCS-R58023	SampType: LCS	Units: ppbv				Prep Date: 3/14/2020			RunNo: 58023		
Client ID: LCSW	Batch ID: R58023	Analysis Date: 3/14/2020							SeqNo: 1158560		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.01	0.0895	2.000	0	101	70	130				
Toluene	1.94	0.400	2.000	0	96.9	70	130				
1,2-Dibromoethane (EDB)	2.00	0.200	2.000	0	99.9	70	130				
Ethylbenzene	1.93	0.400	2.000	0	96.6	70	130				
m,p-Xylene	3.95	0.800	4.000	0	98.9	70	130				
o-Xylene	1.96	0.400	2.000	0	97.9	70	130				
Naphthalene	1.93	0.100	2.000	0	96.5	70	130				
Surr: 4-Bromofluorobenzene	4.05		4.000		101	70	130				

Sample ID: MB-R58023	SampType: MBLK	Units: ppbv			Prep Date: 3/14/2020				RunNo: 58023		
Client ID: MBLKW	Batch ID: R58023	Analysis Date: 3/14/2020							SeqNo: 1158561		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0895									
Toluene	ND	0.400									
1,2-Dibromoethane (EDB)	ND	0.200									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	0.800									
o-Xylene	ND	0.400									
Naphthalene	ND	0.100									
Surr: 4-Bromofluorobenzene	3.54		4.000		88.5	70	130				

Sample ID: 2003185-004AREP		SampType: REP		Units: ppbv		Prep Date: 3/14/2020			RunNo: 58023		
Client ID: BATCH		Batch ID: R58023					Analysis Date: 3/14/2020			SeqNo: 1158566	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.895						0		30	
Toluene	ND	4.00						0		30	
1,2-Dibromoethane (EDB)	ND	2.00						0		30	
Ethylbenzene	ND	4.00						0		30	

Work Order: 2003140
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: 2003185-004AREP		SampType: REP		Units: ppbv		Prep Date: 3/14/2020			RunNo: 58023		
Client ID: BATCH		Batch ID: R58023					Analysis Date: 3/14/2020			SeqNo: 1158566	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	8.00						0		30	
o-Xylene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
Surr: 4-Bromofluorobenzene	36.9		40.00		92.2	70	130		0		

Sample ID: LCS-R58023B	SampType: LCS	Units: ppbv			Prep Date: 3/16/2020			RunNo: 58023			
Client ID: LCSW	Batch ID: R58023	Analysis Date: 3/16/2020						SeqNo: 1159374			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	80.5	1.00	72.00	0	112	70	130				
Benzene	2.20	0.0895	2.000	0	110	70	130				
Toluene	2.32	0.400	2.000	0	116	70	130				
1,2-Dibromoethane (EDB)	2.33	0.200	2.000	0	116	70	130				
Ethylbenzene	2.20	0.400	2.000	0	110	70	130				
m,p-Xylene	4.48	0.800	4.000	0	112	70	130				
o-Xylene	2.27	0.400	2.000	0	113	70	130				
Naphthalene	2.57	0.100	2.000	0	129	70	130				
Surr: 4-Bromofluorobenzene	3.94		4.000		98.5	70	130				

Sample ID: MB-R58023B	SampType: MBLK	Units: ppbv			Prep Date: 3/16/2020				RunNo: 58023		
Client ID: MBLKW	Batch ID: R58023	Analysis Date: 3/16/2020							SeqNo: 1159375		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	1.00									
Benzene	ND	0.0895									
Toluene	ND	0.400									
1,2-Dibromoethane (EDB)	ND	0.200									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	0.800									
o-Xylene	ND	0.400									

Work Order: 2003140
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: MB-R58023B		SampType: MBLK			Units: ppbv		Prep Date: 3/16/2020			RunNo: 58023		
Client ID: MBLKW		Batch ID: R58023			Analysis Date: 3/16/2020			SeqNo: 1159375				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Naphthalene	ND	0.100									
Surr: 4-Bromofluorobenzene	3.59		4.000		89.7	70	130				

Sample ID: 2003205-002AREP		SampType: REP			Units: ppbv		Prep Date: 3/16/2020			RunNo: 58023		
Client ID: BATCH		Batch ID: R58023			Analysis Date: 3/16/2020			SeqNo: 1159377				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Benzene	1.47	0.895						1.250	16.1	30	
Toluene	5.96	4.00						4.820	21.1	30	
1,2-Dibromoethane (EDB)	ND	2.00						0		30	
Ethylbenzene	ND	4.00						0		30	
m,p-Xylene	ND	8.00						0		30	
o-Xylene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
Surr: 4-Bromofluorobenzene	37.4		40.00		93.6	70	130		0		

Client Name: **SLR**
 Logged by: **Clare Griggs**

Work Order Number: **2003140**
 Date Received: **3/10/2020 8:36:00 AM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☐ No ☒ NA ☐
Air Sample
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
 6. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☐ NA ☒
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

3/10/20 - client added Gasoline to list of compounds to be analyzed.

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Air Chain of Custody Record & Laboratory Services Agreement

Date: 3/9/20

Page: 1 of 1

Project Name: SeaTac Development Site

Project No: 101.02207.00001

Location: SeaTac, WA

Collected by: Steven Losleben

Reports to (PM): Mike Station

Email (PM): mstation@slrconsulting.com

Laboratory Project No (Internal): 1003440

Special Remarks:

Air samples are disposed of one week after report is submitted to client unless otherwise requested. ☒ OK to Dispose ☐ Hold (fees may apply)

Client: SLR
Address: 22118 20th Ave SE, Ste 6202
City, State, Zip: Bothell, WA
Telephone: (425) 402-8800
Fax:

Sample Name	Canister / Flow Reg Serial #	Sample Date & Time	Sample Type (Matrix) *	Container Type **	Fill Time / Flow Rate	Internal			Analysis								Comments	Internal		
						Initial Evacuation Pressure (mmHg)	Field Initial Sample Pressure ("Hg)	Field Final Sample Pressure ("Hg)	VOCs TO15 SCAN	VOCs TO15 SCAN LL	VOCs TO15 SIM	Siloxanes TO15	Sulfur TO15	Sulfur Ext. TO15	APH TO15	Helium		Major Gases 3C	Final Pressure ("Hg)	
1	4879	3/9/20	5	1L	Grab	10mmHg 3/3/2020	30	5												
2	N/A	1329					3/9/20	3/9/20												
3	Canister Flow Reg					Pressure Date	Pressure Date	Pressure Date												
4	Canister Flow Reg					Pressure Date	Pressure Date	Pressure Date												
5	Canister Flow Reg					Pressure Date	Pressure Date	Pressure Date												
Matrix Codes: AA = Ambient Air IA = Indoor Air L = Landfill S = Subslab / Soil Gas																				
BTEX, Naphthalene, EDB by TO15 + Gasoline edit 3/9/20 per S.L. of																				

Matrix Codes: AA = Ambient Air IA = Indoor Air L = Landfill S = Subslab / Soil Gas
Container Codes: BV = 1 Liter Bottle Vac GL = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished

3/9/20 @ 1530

3/10/20 @ 830

Received

3/9/20 @ 1530

Turn-Around Time:
☒ Standard
☐ 3 Day
☐ 2 Day
☐ Next Day
☐ Same Day (specify)



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

SLR International
Mike Staton
22118 20th Ave SE. G 202
Bothell, WA 98021

RE: SeaTac Development Site
Work Order Number: 2004170

April 22, 2020

Attention Mike Staton:

Fremont Analytical, Inc. received 1 sample(s) on 4/15/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method TO-15

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager



Date: 04/22/2020

CLIENT: SLR International
Project: SeaTac Development Site
Work Order: 2004170

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2004170-001	SVE-0420	04/14/2020 1:30 PM	04/15/2020 8:35 AM

CLIENT: SLR International
Project: SeaTac Development Site

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes 24.45 = (25C and 1 atm).

Note: Gasoline Range Organics reported in ug/m3 should be considered an estimate. The estimated molecular weight of gasoline used in the equation = 100

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Client: SLR International
WorkOrder: 2004170
Project: SeaTac Development Site

Client Sample ID: SVE-0420
Lab ID: 2004170-001A
Sample Type: Summa Canister

Date Sampled: 4/14/2020
Date Received: 4/15/2020

Analyte	Concentration		Reporting Limit		Qual	Method	Date/Analyst	
<u>Volatile Organic Compounds by EPA Method TO-15</u>								
	(ppbv)	(ug/m³)	(ppbv)	(ug/m³)				
1,2-Dibromoethane (EDB)	<0.200	<1.54	0.200	1.54	I	EPA-TO-15	04/16/2020	AD
Benzene	112	358	0.895	2.86	I	EPA-TO-15	04/16/2020	AD
Ethylbenzene	39.2	170	4.00	17.4	I	EPA-TO-15	04/16/2020	AD
Gasoline Range Organics	22,100	90,500	10.0	40.9	IE	EPA-TO-15	04/16/2020	AD
m,p-Xylene	209	908	8.00	34.7	IE	EPA-TO-15	04/16/2020	AD
Naphthalene	0.307	1.61	0.100	0.524	I	EPA-TO-15	04/16/2020	AD
o-Xylene	160	697	4.00	17.4	I	EPA-TO-15	04/16/2020	AD
Toluene	288	1,090	4.00	15.1	IE	EPA-TO-15	04/16/2020	AD
Surr: 4-Bromofluorobenzene	111 %Rec	--	70-130	--	I	EPA-TO-15	04/16/2020	AD

NOTES:

I - Internal standards were outside of established acceptance criteria. Re-analysis and/or matrix spike samples yielded the same result indicating a possible matrix effect.

E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 2004170
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: LCS-R58629		SampType: LCS			Units: ppbv		Prep Date: 4/15/2020			RunNo: 58629		
Client ID: LCSW		Batch ID: R58629			Analysis Date: 4/15/2020			SeqNo: 1171426				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	71.0	1.00	72.00	0	98.7	70	130				
Benzene	2.01	0.0895	2.000	0	100	70	130				
Toluene	1.94	0.400	2.000	0	97.1	70	130				
1,2-Dibromoethane (EDB)	1.98	0.200	2.000	0	99.0	70	130				
Ethylbenzene	1.94	0.400	2.000	0	96.8	70	130				
m,p-Xylene	3.88	0.800	4.000	0	97.0	70	130				
o-Xylene	1.92	0.400	2.000	0	96.1	70	130				
Naphthalene	1.75	0.100	2.000	0	87.6	70	130				
Surr: 4-Bromofluorobenzene	4.03		4.000		101	70	130				

Sample ID: MB-R58629		SampType: MBLK			Units: ppbv		Prep Date: 4/15/2020			RunNo: 58629		
Client ID: MBLKW		Batch ID: R58629			Analysis Date: 4/15/2020					SeqNo: 1171427		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	1.00									
Benzene	ND	0.0895									
Toluene	ND	0.400									
1,2-Dibromoethane (EDB)	ND	0.200									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	0.800									
o-Xylene	ND	0.400									
Naphthalene	ND	0.100									
Surr: 4-Bromofluorobenzene	3.57		4.000		89.2	70	130				

Sample ID: 2004103-001AREP		SampType: REP			Units: ppbv		Prep Date: 4/16/2020			RunNo: 58629		
Client ID: BATCH		Batch ID: R58629			Analysis Date: 4/16/2020			SeqNo: 1171430				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	3,380	1.00						3,386	0.164	30	E
Benzene	19.3	0.0895						19.35	0.116	30	

Work Order: 2004170
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: 2004103-001AREP		SampType: REP		Units: ppbv		Prep Date: 4/16/2020			RunNo: 58629		
Client ID: BATCH		Batch ID: R58629		Analysis Date: 4/16/2020			SeqNo: 1171430				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	65.1	0.400						66.31	1.84	30	E
1,2-Dibromoethane (EDB)	ND	0.200						0		30	I
Ethylbenzene	20.6	0.400						20.57	0.00992	30	IE
m,p-Xylene	141	0.800						144.3	2.59	30	IE
o-Xylene	58.9	0.400						59.52	1.01	30	IE
Naphthalene	0.635	0.100						0.6205	2.32	30	I
Surr: 4-Bromofluorobenzene	4.14		4.000		103	70	130		0		

NOTES:

I - Indicates an analyte with an internal standard that does not meet established acceptance criteria.

E - Estimated value. The amount exceeds the linear working range of the instrument.

Client Name: **SLR**

Work Order Number: **2004170**

Logged by: **Clare Griggs**

Date Received: **4/15/2020 8:35:00 AM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☐ No ☒ NA ☐
- Air Sample
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☐ NA ☒
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

4/16/20 - client added Naphthalene to project

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Air Chain of Custody Record & Laboratory Services Agreement

Client: SLR

Address: 22114 20th Ave SE, Ste 6202

City, State, Zip: Bothell, WA, 98021

Telephone: (425) 402-6500

Fax:

Date: 4/14/20

Page: 1 of 1

Project Name: Sealac Development Site

Project No: 101.03207.00001

Location: Sealac, WA

Collected by: Steven Lebban

Reports to (PM): Mike Steton

Email (PM): msteton@slrconsulting.com

Laboratory Project No (Internal): 200417D

Special Remarks:

Air samples are disposed of one week after report is submitted to client unless otherwise requested.
☒ OK to Dispose ☐ Hold (fees may apply)

Sample Name	Canister / Flow Reg Serial #	Sample Date & Time	Sample Type (Matrix) *	Container Type **	Fill Time / Flow Rate	Analysis										Comments	Final Pressure ("Hg)	
						Internal		Field Initial Sample Pressure ("Hg)		Field Final Sample Pressure ("Hg)		Analysis						
1	17646	4/14/20	VE	6L	Grab	10mm Hg	30	5										
2	50830990	1330	VE			4/3/2020	4/14/20	4/14/20										
3																		
4																		
5																		

Matrix Codes: AA = Ambient Air

VA = Indoor Air

1 - 200

3 - 1000

4 - 10000

5 - 100000

BTEx + FIDB
GRD by TO15

5

* Matrix Codes: AA = Ambient Air IA = Indoor Air L = Landfill S = Subslab / Soil Gas
 ** Container Codes: BV = 1 Liter Bottle Vac 6L = 6L Canister 1L = 1L Canister CYL = High Pressure Cylinder F = Filter S = Sorbent Tube TB = Tedlar Bag

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time 4/14/20 1400 Received Date/Time 4/15/20 08:35

Relinquished Date/Time 4/14/20 1400 Received Date/Time 4/15/20 08:35

Relinquished Date/Time 4/14/20 1400 Received Date/Time 4/15/20 08:35

Turn-Around Time:
☒ Standard
☐ 3 Day
☐ 2 Day
☐ Next Day
 Same Day (specify)



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Client: **SLR**

Address: 22116 20th Ave SE, Ste 6202

City, State, Zip: Bethell WA, 946201

Telephone: (425) 402-6600

Fax:

Date: 4/14/20

Page 1 of 1

Project Name: Sea Tac	Development	5.7c
-----------------------	-------------	------

Project No: 101-01207-00001

Location: Seavay WA

Collected by: S. Turner
Lashburn

Reports to (PM): Mike Staton

Email (PM): msfstation@515consulting.com

Our samples are disposed of one week after report is submitted to client unless otherwise requested.

☒ OK to Dispose ☐ Hold (fees may apply)

~~✓~~ OK to Dispose

☐ Hold (fees may apply)

Laboratory Project No. _____

Special Remarks: _____

2004170

Air Chain of Custody Record & Laboratory Services Agreement

[illegible]

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-Around Time:

Refinishing

Date/Time	Location	Remarks
4/14/20	1420	

Received
* Envelope

Date/Time	Received	Date/Time
	11	7/10/20

Date/Time 4/15/20 08:35

1

Same Day

[illegible]



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

SLR International
Mike Staton
22118 20th Ave SE. G 202
Bothell, WA 98021

RE: SeaTac Development Site
Work Order Number: 2007042

July 10, 2020

Attention Mike Staton:

Fremont Analytical, Inc. received 1 sample(s) on 7/2/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method TO-15

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005
ORELAP Certification: WA 100009-007 (NELAP Recognized)



Date: 07/10/2020

CLIENT: SLR International
Project: SeaTac Development Site
Work Order: 2007042

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2007042-001	SVE-0720	07/02/2020 12:30 PM	07/02/2020 2:01 PM

CLIENT: SLR International
Project: SeaTac Development Site

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Standard temperature and pressure assumes $24.45 = (25^{\circ}\text{C and } 1 \text{ atm})$.

Note: Gasoline Range Organics reported in ug/m3 should be considered an estimate. The estimated molecular weight of gasoline used in the equation = 100

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Client: SLR International
WorkOrder: 2007042
Project: SeaTac Development Site

Client Sample ID: SVE-0720
Lab ID: 2007042-001A
Sample Type: Summa Canister

Date Sampled: 7/2/2020
Date Received: 7/2/2020

Analyte	Concentration	Reporting Limit	Qual	Method	Date/Analyst
<u>Volatile Organic Compounds by EPA Method TO-15</u>					
	(ppbv)	(ug/m ³)	(ppbv)	(ug/m ³)	
1,2-Dibromoethane (EDB)	<2.00	<15.4	2.00	15.4	EPA-TO-15 07/07/2020 WC
Benzene	42.2	135	0.895	2.86	EPA-TO-15 07/07/2020 WC
Ethylbenzene	17.9	77.9	4.00	17.4	EPA-TO-15 07/07/2020 WC
Gasoline Range Organics	18,800	76,700	10.0	40.9	E EPA-TO-15 07/07/2020 WC
m,p-Xylene	127	550	8.00	34.7	EPA-TO-15 07/07/2020 WC
Naphthalene	1.30	6.82	0.100	0.524	I EPA-TO-15 07/08/2020 WC
o-Xylene	76.8	333	4.00	17.4	EPA-TO-15 07/07/2020 WC
Toluene	173	652	4.00	15.1	EPA-TO-15 07/07/2020 WC
Surr: 4-Bromofluorobenzene	124 %Rec	--	70-130	--	EPA-TO-15 07/07/2020 WC

NOTES:

E - Estimated value. The amount exceeds the linear working range of the instrument.

I - Internal standards were outside of established acceptance criteria. Re-analysis and/or matrix spike samples yielded the same result indicating a possible matrix effect.

Work Order: 2007042
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: LCS-R60367		SampType: LCS			Units: ppbv		Prep Date: 7/8/2020			RunNo: 60367		
Client ID: LCSW		Batch ID: R60367			Analysis Date: 7/8/2020			SeqNo: 1209251				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Naphthalene	1.74	0.100	2.000	0	87.0	70	130				
Surr: 4-Bromofluorobenzene	3.85		4.000		96.2	70	130				

Sample ID: LCSD-R60367		SampType: LCSD			Units: ppbv		Prep Date: 7/8/2020			RunNo: 60367		
Client ID: LCSW02		Batch ID: R60367			Analysis Date: 7/8/2020			SeqNo: 1209252				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Naphthalene	1.90	0.100	2.000	0	95.0	70	130	1.740	8.80	30	
Surr: 4-Bromofluorobenzene	3.82		4.000		95.4	70	130		0		

Sample ID: MB-R60367		SampType: MBLK			Units: ppbv		Prep Date: 7/8/2020			RunNo: 60367		
Client ID: MBLKW		Batch ID: R60367			Analysis Date: 7/8/2020					SeqNo: 1209253		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Naphthalene	ND	0.100									I
Surr: 4-Bromofluorobenzene	3.55		4.000		88.8	70	130				I

NOTES:

I - Indicates an analyte with an internal standard that does not meet established acceptance criteria.

Work Order: 2007042
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: LCS-R60334	SampType: LCS	Units: ppbv				Prep Date: 7/7/2020			RunNo: 60334		
Client ID: LCSW	Batch ID: R60334	Analysis Date: 7/7/2020						SeqNo: 1208498			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	73.6	1.00	72.00	0	102	70	130				
Benzene	1.83	0.0895	2.000	0	91.5	70	130				
Toluene	1.84	0.400	2.000	0	92.2	70	130				
1,2-Dibromoethane (EDB)	1.68	0.200	2.000	0	84.0	70	130				
Ethylbenzene	1.93	0.400	2.000	0	96.6	70	130				
m,p-Xylene	3.87	0.800	4.000	0	96.8	70	130				
o-Xylene	2.00	0.400	2.000	0	100	70	130				
Surr: 4-Bromofluorobenzene	3.82		4.000		95.4	70	130				

Sample ID: LCSD-R60334	SampType: LCSD	Units: ppbv				Prep Date: 7/7/2020			RunNo: 60334		
Client ID: LCSW02	Batch ID: R60334	Analysis Date: 7/7/2020							SeqNo: 1208499		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	72.0	1.00	72.00	0	100	70	130	73.62	2.19	30	
Benzene	1.89	0.0895	2.000	0	94.4	70	130	1.830	3.06	30	
Toluene	1.92	0.400	2.000	0	95.8	70	130	1.845	3.75	30	
1,2-Dibromoethane (EDB)	1.78	0.200	2.000	0	88.9	70	130	1.680	5.66	30	
Ethylbenzene	1.97	0.400	2.000	0	98.6	70	130	1.932	2.07	30	
m,p-Xylene	3.93	0.800	4.000	0	98.2	70	130	3.872	1.41	30	
o-Xylene	2.03	0.400	2.000	0	101	70	130	2.003	1.26	30	
Surr: 4-Bromofluorobenzene	3.84		4.000		96.1	70	130		0		

Sample ID: MB-R60334	SampType: MBLK	Units: ppbv			Prep Date: 7/7/2020				RunNo: 60334			
Client ID: MBLKW	Batch ID: R60334					Analysis Date: 7/7/2020				SeqNo: 1208500		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Gasoline Range Organics	ND	1.00										
Benzene	ND	0.0895										
Toluene	ND	0.400										
1,2-Dibromoethane (EDB)	ND	0.200										

Work Order: 2007042
CLIENT: SLR International
Project: SeaTac Development Site

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: MB-R60334	SampType: MBLK	Units: ppbv			Prep Date: 7/7/2020				RunNo: 60334		
Client ID: MBLKW	Batch ID: R60334					Analysis Date: 7/7/2020				SeqNo: 1208500	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	0.800									
o-Xylene	ND	0.400									
Surr: 4-Bromofluorobenzene	3.39		4.000		84.8	70	130				

Client Name: **SLR**
 Logged by: **Carissa True**

Work Order Number: **2007042**
 Date Received: **7/2/2020 2:01:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☐ No ☒ NA ☐
Air sample
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
 6. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☐ NA ☒
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave. N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 7/2/20

Page: 1 of 1

Client: SLR

Address: 2218 20th Ave SE, G-202

City, State, Zip: Bottel WA 98021

Telephone: (425) 402-8800

Fax: (425) 402-8488

Email (PM): mslata@slrconsulting.com

☒ OK to Dispose
 ☐ Hold (Fees may apply)

Laboratory Project No (Internal)

2007042

GRO, BTEX, EDB, & Naphthalene
By TO-15

										Analysis							Interval			
Sample Name	Canister / Flow Reg Serial #	Sample Date & Time	Sample Type (Matrix) *	Container Type **	Fill Time / Flow Rate	Initial Evacuation Pressure (torr)	Field Initial Sample Pressure (in Hg)	Field Final Sample Pressure (in Hg)	VOCs TO15 SCAN	VOCs TO15 SCAN LL	VOCs TO15 SIM	Siloxanes TO15	Sulfur TO15	Sulfur Ext. TO15	APH TO15	Helium	Major Gases 3C	Comments	Final Pressure (in Hg)	
SVE-0780	13975	7/8/00 1930	S	6L	Grab	10mtorr 6/25/2020	-29	-5	✓											-6
								</												

GROUNDWATER SAMPLES



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Tuesday, August 4, 2020

Mike Staton
SLR Corporation-Bothell
22118 20th Ave SE
Bothell, WA 98021

RE: A0G0640 - Sea-Tac Development Site - 101.02207.00001

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A0G0640, which was received by the laboratory on 7/23/2020 at 10:18:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1

1.9 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Lisa Domenighini, Client Services Manager

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-06-0720	A0G0640-01	Water	07/22/20 06:28	07/23/20 10:18
MW-07-0720	A0G0640-02	Water	07/22/20 09:43	07/23/20 10:18
MW-09-0720	A0G0640-03	Water	07/22/20 07:05	07/23/20 10:18
MW-12-0720	A0G0640-04	Water	07/22/20 08:27	07/23/20 10:18
MW-13-0720	A0G0640-05	Water	07/22/20 07:38	07/23/20 10:18
MW-17A-0720	A0G0640-06	Water	07/21/20 14:19	07/23/20 10:18
MW-18-0720	A0G0640-07	Water	07/22/20 09:10	07/23/20 10:18
MW-19-0720	A0G0640-08	Water	07/22/20 10:17	07/23/20 10:18
MW-20-0720	A0G0640-09	Water	07/21/20 14:54	07/23/20 10:18
MW-21-0720	A0G0640-10	Water	07/21/20 15:25	07/23/20 10:18
MW-22-0720	A0G0640-11	Water	07/21/20 13:03	07/23/20 10:18
MW-32-0720	A0G0640-12	Water	07/21/20 13:15	07/23/20 10:18
Port-MW-B-0720	A0G0640-13	Water	07/21/20 12:21	07/23/20 10:18
Equipment-Blank-0720	A0G0640-14	Water	07/21/20 15:30	07/23/20 10:18
Trip Blank	A0G0640-15	Water	07/21/20 00:00	07/23/20 10:18

Apex Laboratories

Lisa Domenighini, Client Services Manager

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 101.02207.00001

Project Manager: Mike Staton

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-06-0720 (A0G0640-01)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 17:38	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	07/24/20 17:38	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		105 %	50-150 %	1	07/24/20 17:38	NWTPH-Gx (MS)		
MW-07-0720 (A0G0640-02)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	802	---	100	ug/L	1	07/24/20 18:05	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	07/24/20 18:05	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		101 %	50-150 %	1	07/24/20 18:05	NWTPH-Gx (MS)		
MW-09-0720 (A0G0640-03)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 18:59	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	07/24/20 18:59	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		101 %	50-150 %	1	07/24/20 18:59	NWTPH-Gx (MS)		
MW-12-0720 (A0G0640-04)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 19:26	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	07/24/20 19:26	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		101 %	50-150 %	1	07/24/20 19:26	NWTPH-Gx (MS)		
MW-13-0720 (A0G0640-05)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	904	---	100	ug/L	1	07/24/20 19:53	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 97 %	Limits: 50-150 %	1	07/24/20 19:53	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		98 %	50-150 %	1	07/24/20 19:53	NWTPH-Gx (MS)		
MW-17A-0720 (A0G0640-06)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 20:20	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 95 %	Limits: 50-150 %	1	07/24/20 20:20	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	07/24/20 20:20	NWTPH-Gx (MS)		
MW-18-0720 (A0G0640-07)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 20:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	07/24/20 20:47	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	07/24/20 20:47	NWTPH-Gx (MS)		
MW-19-0720 (A0G0640-08)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 21:14	NWTPH-Gx (MS)	

Apex Laboratories

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-19-0720 (A0G0640-08)				Matrix: Water		Batch: 0070762		
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 95 %	Limits: 50-150 %	1	07/24/20 21:14	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	07/24/20 21:14	NWTPH-Gx (MS)		
MW-20-0720 (A0G0640-09)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 21:41	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	07/24/20 21:41	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	07/24/20 21:41	NWTPH-Gx (MS)		
MW-21-0720 (A0G0640-10)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 22:08	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	07/24/20 22:08	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		105 %	50-150 %	1	07/24/20 22:08	NWTPH-Gx (MS)		
MW-22-0720 (A0G0640-11)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	4380	---	500	ug/L	5	07/24/20 22:36	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	07/24/20 22:36	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		101 %	50-150 %	1	07/24/20 22:36	NWTPH-Gx (MS)		
MW-32-0720 (A0G0640-12)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	5030	---	100	ug/L	1	07/25/20 00:24	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 103 %	Limits: 50-150 %	1	07/25/20 00:24	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		100 %	50-150 %	1	07/25/20 00:24	NWTPH-Gx (MS)		
Port-MW-B-0720 (A0G0640-13)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/25/20 00:51	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 95 %	Limits: 50-150 %	1	07/25/20 00:51	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		100 %	50-150 %	1	07/25/20 00:51	NWTPH-Gx (MS)		
Equipment-Blank-0720 (A0G0640-14)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 17:11	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	07/24/20 17:11	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	07/24/20 17:11	NWTPH-Gx (MS)		
Trip Blank (A0G0640-15)				Matrix: Water		Batch: 0070762		
Gasoline Range Organics	ND	---	100	ug/L	1	07/24/20 16:44	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 95 %	Limits: 50-150 %	1	07/24/20 16:44	NWTPH-Gx (MS)		

Apex Laboratories

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Lisa Domenighini, Client Services Manager



Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A0G0640-15)				Matrix: Water		Batch: 0070762		
<i>Surrogate: 1,4-Difluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/24/20 16:44</i>	<i>NWTPH-Gx (MS)</i>		

Apex Laboratories

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Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A0G0640-15)				Matrix: Water		Batch: 0070762		
Benzene	ND	---	0.200	ug/L	1	07/24/20 16:44	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 16:44	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 16:44	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 16:44	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/24/20 16:44</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 16:44</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 16:44</i>	<i>EPA 8260D</i>	

Apex Laboratories

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-06-0720 (A0G0640-01)		Matrix: Water		Batch: 0070762				
Benzene	ND	---	0.200	ug/L	1	07/24/20 17:38	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 17:38	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 17:38	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 17:38	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 17:38	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 17:38	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>101 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 17:38</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 17:38</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 17:38</i>	<i>EPA 8260D</i>
MW-07-0720 (A0G0640-02)		Matrix: Water		Batch: 0070762				
Benzene	ND	---	0.200	ug/L	1	07/24/20 18:05	EPA 8260D	
Ethylbenzene	2.24	---	0.500	ug/L	1	07/24/20 18:05	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 18:05	EPA 8260D	
Naphthalene	2.92	---	2.00	ug/L	1	07/24/20 18:05	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 18:05	EPA 8260D	
Xylenes, total	11.9	---	1.50	ug/L	1	07/24/20 18:05	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>99 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 18:05</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 18:05</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 18:05</i>	<i>EPA 8260D</i>
MW-09-0720 (A0G0640-03)		Matrix: Water		Batch: 0070762				
Benzene	ND	---	0.200	ug/L	1	07/24/20 18:59	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 18:59	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 18:59	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 18:59	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 18:59	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 18:59	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>102 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 18:59</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 18:59</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 18:59</i>	<i>EPA 8260D</i>
MW-12-0720 (A0G0640-04)		Matrix: Water		Batch: 0070762				
Benzene	ND	---	0.200	ug/L	1	07/24/20 19:26	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 19:26	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 19:26	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 19:26	EPA 8260D	

Apex Laboratories

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-0720 (A0G0640-04)		Matrix: Water			Batch: 0070762			
Toluene	ND	---	1.00	ug/L	1	07/24/20 19:26	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 19:26	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>101 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 19:26</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 19:26</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 19:26</i>	<i>EPA 8260D</i>
MW-13-0720 (A0G0640-05)		Matrix: Water			Batch: 0070762			
Benzene	0.340	---	0.200	ug/L	1	07/24/20 19:53	EPA 8260D	
Ethylbenzene	0.740	---	0.500	ug/L	1	07/24/20 19:53	EPA 8260D	
n-Hexane	5.75	---	2.00	ug/L	1	07/24/20 19:53	EPA 8260D	
Naphthalene	4.55	---	2.00	ug/L	1	07/24/20 19:53	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 19:53	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 19:53	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>99 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 19:53</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 19:53</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>97 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 19:53</i>	<i>EPA 8260D</i>
MW-17A-0720 (A0G0640-06)		Matrix: Water			Batch: 0070762			
Benzene	ND	---	0.200	ug/L	1	07/24/20 20:20	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 20:20	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 20:20	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 20:20	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 20:20	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 20:20	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>100 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 20:20</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 20:20</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 20:20</i>	<i>EPA 8260D</i>
MW-18-0720 (A0G0640-07)		Matrix: Water			Batch: 0070762			
Benzene	ND	---	0.200	ug/L	1	07/24/20 20:47	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 20:47	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 20:47	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 20:47	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 20:47	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 20:47	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>102 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 20:47</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 20:47</i>	<i>EPA 8260D</i>

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-18-0720 (A0G0640-07)				Matrix: Water		Batch: 0070762		
<i>Surrogate: 4-Bromofluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/24/20 20:47</i>	<i>EPA 8260D</i>		
MW-19-0720 (A0G0640-08)				Matrix: Water		Batch: 0070762		
Benzene	ND	---	0.200	ug/L	1	07/24/20 21:14	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 21:14	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 21:14	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 21:14	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 21:14	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 21:14	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/24/20 21:14</i>	<i>EPA 8260D</i>		
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 21:14</i>	<i>EPA 8260D</i>		
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 21:14</i>	<i>EPA 8260D</i>		
MW-20-0720 (A0G0640-09)				Matrix: Water		Batch: 0070762		
Benzene	ND	---	0.200	ug/L	1	07/24/20 21:41	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 21:41	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 21:41	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 21:41	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 21:41	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 21:41	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/24/20 21:41</i>	<i>EPA 8260D</i>		
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 21:41</i>	<i>EPA 8260D</i>		
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 21:41</i>	<i>EPA 8260D</i>		
MW-21-0720 (A0G0640-10)				Matrix: Water		Batch: 0070762		
Benzene	ND	---	0.200	ug/L	1	07/24/20 22:08	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 22:08	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 22:08	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 22:08	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 22:08	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 22:08	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/24/20 22:08</i>	<i>EPA 8260D</i>		
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 22:08</i>	<i>EPA 8260D</i>		
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/24/20 22:08</i>	<i>EPA 8260D</i>		
MW-22-0720 (A0G0640-11)				Matrix: Water		Batch: 0070762		
Benzene	2.90	---	1.00	ug/L	5	07/24/20 22:36	EPA 8260D	

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **101.02207.00001**Project Manager: **Mike Staton****Report ID:****A0G0640 - 08 04 20 1155****ANALYTICAL SAMPLE RESULTS****Selected Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-22-0720 (A0G0640-11)		Matrix: Water		Batch: 0070762				
Ethylbenzene	184	---	2.50	ug/L	5	07/24/20 22:36	EPA 8260D	
n-Hexane	ND	---	10.0	ug/L	5	07/24/20 22:36	EPA 8260D	
Naphthalene	175	---	10.0	ug/L	5	07/24/20 22:36	EPA 8260D	
Toluene	ND	---	5.00	ug/L	5	07/24/20 22:36	EPA 8260D	
Xylenes, total	340	---	7.50	ug/L	5	07/24/20 22:36	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	99 %	Limits:	80-120 %	1	07/24/20 22:36	EPA 8260D
Toluene-d8 (Surr)			101 %		80-120 %	1	07/24/20 22:36	EPA 8260D
4-Bromofluorobenzene (Surr)			98 %		80-120 %	1	07/24/20 22:36	EPA 8260D
MW-32-0720 (A0G0640-12)		Matrix: Water		Batch: 0070762				
Benzene	3.17	---	0.200	ug/L	1	07/25/20 00:24	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/25/20 00:24	EPA 8260D	
Naphthalene	190	---	2.00	ug/L	1	07/25/20 00:24	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/25/20 00:24	EPA 8260D	
Xylenes, total	379	---	1.50	ug/L	1	07/25/20 00:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	100 %	Limits:	80-120 %	1	07/25/20 00:24	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	07/25/20 00:24	EPA 8260D
4-Bromofluorobenzene (Surr)			97 %		80-120 %	1	07/25/20 00:24	EPA 8260D
MW-32-0720 (A0G0640-12RE1)		Matrix: Water		Batch: 0070775				
Ethylbenzene	178	---	5.00	ug/L	10	07/27/20 12:01	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	98 %	Limits:	80-120 %	1	07/27/20 12:01	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	07/27/20 12:01	EPA 8260D
4-Bromofluorobenzene (Surr)			103 %		80-120 %	1	07/27/20 12:01	EPA 8260D
Port-MW-B-0720 (A0G0640-13)		Matrix: Water		Batch: 0070762				
Benzene	ND	---	0.200	ug/L	1	07/25/20 00:51	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/25/20 00:51	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/25/20 00:51	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/25/20 00:51	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/25/20 00:51	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/25/20 00:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits:	80-120 %	1	07/25/20 00:51	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	07/25/20 00:51	EPA 8260D
4-Bromofluorobenzene (Surr)			104 %		80-120 %	1	07/25/20 00:51	EPA 8260D
Equipment-Blank-0720 (A0G0640-14)		Matrix: Water		Batch: 0070762				

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Lisa Domenighini, Client Services Manager

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Equipment-Blank-0720 (A0G0640-14)				Matrix: Water		Batch: 0070762		
Benzene	ND	---	0.200	ug/L	1	07/24/20 17:11	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/24/20 17:11	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	07/24/20 17:11	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/24/20 17:11	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/24/20 17:11	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	07/24/20 17:11	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/24/20 17:11</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 17:11</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/24/20 17:11</i>	<i>EPA 8260D</i>	

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 101.02207.00001

Project Manager: Mike Staton

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-06-0720 (A0G0640-01)		Matrix: Water		Batch: 0070910				
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 15:35	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 98 %	Limits: 70-130 %	1	07/30/20 15:35	EPA 8260D SIM		
Toluene-d8 (Surr)		101 %	70-130 %	1	07/30/20 15:35	EPA 8260D SIM		
4-Bromofluorobenzene (Surr)		101 %	70-130 %	1	07/30/20 15:35	EPA 8260D SIM		
MW-07-0720 (A0G0640-02)		Matrix: Water		Batch: 0070910				
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 21:02	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 105 %	Limits: 70-130 %	1	07/30/20 21:02	EPA 8260D SIM		
Toluene-d8 (Surr)		99 %	70-130 %	1	07/30/20 21:02	EPA 8260D SIM		
4-Bromofluorobenzene (Surr)		96 %	70-130 %	1	07/30/20 21:02	EPA 8260D SIM		
MW-09-0720 (A0G0640-03)		Matrix: Water		Batch: 0070910				
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 16:30	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 100 %	Limits: 70-130 %	1	07/30/20 16:30	EPA 8260D SIM		
Toluene-d8 (Surr)		100 %	70-130 %	1	07/30/20 16:30	EPA 8260D SIM		
4-Bromofluorobenzene (Surr)		100 %	70-130 %	1	07/30/20 16:30	EPA 8260D SIM		
MW-12-0720 (A0G0640-04)		Matrix: Water		Batch: 0070910				
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 16:57	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 99 %	Limits: 70-130 %	1	07/30/20 16:57	EPA 8260D SIM		
Toluene-d8 (Surr)		100 %	70-130 %	1	07/30/20 16:57	EPA 8260D SIM		
4-Bromofluorobenzene (Surr)		99 %	70-130 %	1	07/30/20 16:57	EPA 8260D SIM		
MW-13-0720 (A0G0640-05)		Matrix: Water		Batch: 0070910				
1,2-Dibromoethane (EDB)	ND	0.0200	0.0200	ug/L	1	07/30/20 21:30	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 106 %	Limits: 70-130 %	1	07/30/20 21:30	EPA 8260D SIM		
Toluene-d8 (Surr)		100 %	70-130 %	1	07/30/20 21:30	EPA 8260D SIM		
4-Bromofluorobenzene (Surr)		94 %	70-130 %	1	07/30/20 21:30	EPA 8260D SIM		
MW-17A-0720 (A0G0640-06)		Matrix: Water		Batch: 0070910				
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 17:24	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 100 %	Limits: 70-130 %	1	07/30/20 17:24	EPA 8260D SIM		
Toluene-d8 (Surr)		100 %	70-130 %	1	07/30/20 17:24	EPA 8260D SIM		
4-Bromofluorobenzene (Surr)		100 %	70-130 %	1	07/30/20 17:24	EPA 8260D SIM		
MW-18-0720 (A0G0640-07)		Matrix: Water		Batch: 0070910				

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503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **101.02207.00001**Project Manager: **Mike Staton****Report ID:****A0G0640 - 08 04 20 1155****ANALYTICAL SAMPLE RESULTS****1,2-Dibromoethane (EDB) by EPA 8260D SIM**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-18-0720 (A0G0640-07) Matrix: Water Batch: 0070910								
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 17:51	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	100 %	Limits: 70-130 %	1	07/30/20 17:51	EPA 8260D SIM	
Toluene-d8 (Surr)			100 %	70-130 %	1	07/30/20 17:51	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			99 %	70-130 %	1	07/30/20 17:51	EPA 8260D SIM	
MW-19-0720 (A0G0640-08) Matrix: Water Batch: 0070910								
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 18:19	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	100 %	Limits: 70-130 %	1	07/30/20 18:19	EPA 8260D SIM	
Toluene-d8 (Surr)			100 %	70-130 %	1	07/30/20 18:19	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			100 %	70-130 %	1	07/30/20 18:19	EPA 8260D SIM	
MW-20-0720 (A0G0640-09) Matrix: Water Batch: 0070910								
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 18:46	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	100 %	Limits: 70-130 %	1	07/30/20 18:46	EPA 8260D SIM	
Toluene-d8 (Surr)			100 %	70-130 %	1	07/30/20 18:46	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			100 %	70-130 %	1	07/30/20 18:46	EPA 8260D SIM	
MW-21-0720 (A0G0640-10) Matrix: Water Batch: 0070910								
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 19:13	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	100 %	Limits: 70-130 %	1	07/30/20 19:13	EPA 8260D SIM	
Toluene-d8 (Surr)			101 %	70-130 %	1	07/30/20 19:13	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			100 %	70-130 %	1	07/30/20 19:13	EPA 8260D SIM	
MW-22-0720 (A0G0640-11) Matrix: Water Batch: 0070910								
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 21:57	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits: 70-130 %	1	07/30/20 21:57	EPA 8260D SIM	
Toluene-d8 (Surr)			97 %	70-130 %	1	07/30/20 21:57	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			92 %	70-130 %	1	07/30/20 21:57	EPA 8260D SIM	
MW-32-0720 (A0G0640-12) Matrix: Water Batch: 0070910								
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 22:24	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits: 70-130 %	1	07/30/20 22:24	EPA 8260D SIM	
Toluene-d8 (Surr)			105 %	70-130 %	1	07/30/20 22:24	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)			93 %	70-130 %	1	07/30/20 22:24	EPA 8260D SIM	
Port-MW-B-0720 (A0G0640-13) Matrix: Water Batch: 0070910								

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

ANALYTICAL SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Port-MW-B-0720 (A0G0640-13)				Matrix: Water		Batch: 0070910		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 20:35	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	101 %	<i>Limits:</i>	70-130 %	1	07/30/20 20:35	EPA 8260D SIM
<i>Toluene-d8 (Surr)</i>			100 %		70-130 %	1	07/30/20 20:35	EPA 8260D SIM
<i>4-Bromofluorobenzene (Surr)</i>			101 %		70-130 %	1	07/30/20 20:35	EPA 8260D SIM
Equipment-Blank-0720 (A0G0640-14)				Matrix: Water		Batch: 0070910		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	07/30/20 14:40	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	98 %	<i>Limits:</i>	70-130 %	1	07/30/20 14:40	EPA 8260D SIM
<i>Toluene-d8 (Surr)</i>			100 %		70-130 %	1	07/30/20 14:40	EPA 8260D SIM
<i>4-Bromofluorobenzene (Surr)</i>			101 %		70-130 %	1	07/30/20 14:40	EPA 8260D SIM

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Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0070762 - EPA 5030B						Water						
Blank (0070762-BLK1)		Prepared: 07/24/20 14:00 Analyzed: 07/24/20 16:16										
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		103 %		50-150 %		"						
LCS (0070762-BS2)		Prepared: 07/24/20 14:00 Analyzed: 07/24/20 15:49										
NWTPH-Gx (MS)												
Gasoline Range Organics	514	---	100	ug/L	1	500	---	103	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		100 %		50-150 %		"						
Duplicate (0070762-DUP1)		Prepared: 07/24/20 15:42 Analyzed: 07/24/20 18:32										
QC Source Sample: MW-07-0720 (A0G0640-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	803	---	100	ug/L	1	---	802	---	---	0.1	30%	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		100 %		50-150 %		"						
Duplicate (0070762-DUP2)		Prepared: 07/24/20 15:42 Analyzed: 07/24/20 23:03										
QC Source Sample: MW-22-0720 (A0G0640-11)												
NWTPH-Gx (MS)												
Gasoline Range Organics	4450	---	500	ug/L	5	---	4380	---	---	2	30%	
Surr: 4-Bromofluorobenzene (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Surr)		99 %		50-150 %		"						

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503-718-2323
ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **101.02207.00001**Project Manager: **Mike Staton****Report ID:****A0G0640 - 08 04 20 1155****QUALITY CONTROL (QC) SAMPLE RESULTS****BTEX Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0070762 - EPA 5030B							Water					
Blank (0070762-BLK1)		Prepared: 07/24/20 14:00 Analyzed: 07/24/20 16:16										
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						
LCS (0070762-BS1)		Prepared: 07/24/20 14:00 Analyzed: 07/24/20 15:22										
EPA 8260D												
Benzene	20.7	---	0.200	ug/L	1	20.0	---	103	80 - 120%	---	---	
Toluene	21.2	---	1.00	ug/L	1	20.0	---	106	80 - 120%	---	---	
Ethylbenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80 - 120%	---	---	
Xylenes, total	64.4	---	1.50	ug/L	1	60.0	---	107	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
Duplicate (0070762-DUP1)		Prepared: 07/24/20 15:42 Analyzed: 07/24/20 18:32										
QC Source Sample: MW-07-0720 (A0G0640-02)												
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	0.670	---	---	***	30%	
Ethylbenzene	2.19	---	0.500	ug/L	1	---	2.24	---	---	2	30%	
Xylenes, total	12.0	---	1.50	ug/L	1	---	11.9	---	---	1	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

Duplicate (0070762-DUP2) Prepared: 07/24/20 15:42 Analyzed: 07/24/20 23:03**QC Source Sample: MW-22-0720 (A0G0640-11)****EPA 8260D**

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22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0070762 - EPA 5030B							Water					
Duplicate (0070762-DUP2)		Prepared: 07/24/20 15:42 Analyzed: 07/24/20 23:03										
QC Source Sample: MW-22-0720 (A0G0640-11)												
Benzene	3.05	---	1.00	ug/L	5	---	2.90	---	---	5	30%	
Toluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Ethylbenzene	190	---	2.50	ug/L	5	---	184	---	---	3	30%	
Xylenes, total	353	---	7.50	ug/L	5	---	340	---	---	4	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						

Matrix Spike (0070762-MS1) Prepared: 07/24/20 15:42 Analyzed: 07/25/20 01:18

QC Source Sample: Port-MW-B-0720 (A0G0640-13)

EPA 8260D												
Benzene	21.2	---	0.200	ug/L	1	20.0	ND	106	79 - 120%	---	---	
Toluene	20.9	---	1.00	ug/L	1	20.0	ND	104	80 - 121%	---	---	
Ethylbenzene	21.2	---	0.500	ug/L	1	20.0	0.290	105	79 - 121%	---	---	
Xylenes, total	64.1	---	1.50	ug/L	1	60.0	ND	107	79 - 121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						

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Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	Limits	RPD	RPD Limit	Notes
Batch 0070762 - EPA 5030B						Water						
Blank (0070762-BLK1)		Prepared: 07/24/20 14:00 Analyzed: 07/24/20 16:16										
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
n-Hexane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						
LCS (0070762-BS1)		Prepared: 07/24/20 14:00 Analyzed: 07/24/20 15:22										
EPA 8260D												
Benzene	20.7	---	0.200	ug/L	1	20.0	---	103	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	20.5	---	0.500	ug/L	1	20.0	---	103	80 - 120%	---	---	
Ethylbenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80 - 120%	---	---	
n-Hexane	22.4	---	2.00	ug/L	1	20.0	---	112	80 - 120%	---	---	
Naphthalene	17.4	---	2.00	ug/L	1	20.0	---	87	80 - 120%	---	---	
Toluene	21.2	---	1.00	ug/L	1	20.0	---	106	80 - 120%	---	---	
Xylenes, total	64.4	---	1.50	ug/L	1	60.0	---	107	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
Duplicate (0070762-DUP1)		Prepared: 07/24/20 15:42 Analyzed: 07/24/20 18:32										
QC Source Sample: MW-07-0720 (A0G0640-02)												
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	2.19	---	0.500	ug/L	1	---	2.24	---	---	2	30%	
n-Hexane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	3.00	---	2.00	ug/L	1	---	2.92	---	---	3	30%	
Toluene	ND	---	1.00	ug/L	1	---	0.670	---	---	***	30%	

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ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **101.02207.00001**Project Manager: **Mike Staton****Report ID:****A0G0640 - 08 04 20 1155****QUALITY CONTROL (QC) SAMPLE RESULTS****Selected Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0070762 - EPA 5030B							Water					
Duplicate (0070762-DUP1)		Prepared: 07/24/20 15:42 Analyzed: 07/24/20 18:32										
QC Source Sample: MW-07-0720 (A0G0640-02)												
Xylenes, total	12.0	---	1.50	ug/L	1	---	11.9	---	---	1	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
Duplicate (0070762-DUP2)		Prepared: 07/24/20 15:42 Analyzed: 07/24/20 23:03										
QC Source Sample: MW-22-0720 (A0G0640-11)												
EPA 8260D												
Benzene	3.05	---	1.00	ug/L	5	---	2.90	---	---	5	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Ethylbenzene	190	---	2.50	ug/L	5	---	184	---	---	3	30%	
n-Hexane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
Naphthalene	177	---	10.0	ug/L	5	---	175	---	---	1	30%	
Toluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Xylenes, total	353	---	7.50	ug/L	5	---	340	---	---	4	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						
Matrix Spike (0070762-MS1)		Prepared: 07/24/20 15:42 Analyzed: 07/25/20 01:18										
QC Source Sample: Port-MW-B-0720 (A0G0640-13)												
EPA 8260D												
Benzene	21.2	---	0.200	ug/L	1	20.0	ND	106	79 - 120%	---	---	
1,2-Dibromoethane (EDB)	19.7	---	0.500	ug/L	1	20.0	ND	99	77 - 121%	---	---	
Ethylbenzene	21.2	---	0.500	ug/L	1	20.0	0.290	105	79 - 121%	---	---	
n-Hexane	22.7	---	2.00	ug/L	1	20.0	ND	113	48 - 143%	---	---	
Naphthalene	18.2	---	2.00	ug/L	1	20.0	ND	91	61 - 128%	---	---	
Toluene	20.9	---	1.00	ug/L	1	20.0	ND	104	80 - 121%	---	---	
Xylenes, total	64.1	---	1.50	ug/L	1	60.0	ND	107	79 - 121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						

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SLR Corporation-Bothell

22118 20th Ave SE

Bothell, WA 98021

Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0070762 - EPA 5030B							Water					

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Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0070775 - EPA 5030B							Water					
Blank (0070775-BLK1)		Prepared: 07/27/20 07:30 Analyzed: 07/27/20 10:39										
EPA 8260D												
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		106 %		80-120 %		"						
LCS (0070775-BS1)		Prepared: 07/27/20 07:30 Analyzed: 07/27/20 09:45										
EPA 8260D												
Ethylbenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **101.02207.00001**Project Manager: **Mike Staton****Report ID:****A0G0640 - 08 04 20 1155****QUALITY CONTROL (QC) SAMPLE RESULTS****1,2-Dibromoethane (EDB) by EPA 8260D SIM**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0070910 - EPA 5030B						Water						
Blank (0070910-BLK1)		Prepared: 07/30/20 09:00 Analyzed: 07/30/20 14:12										
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		101 %		80-120 %		"						
LCS (0070910-BS1)		Prepared: 07/30/20 09:00 Analyzed: 07/30/20 12:51										
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	0.177	0.0100	0.0200	ug/L	1	0.200	---	89	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						
Duplicate (0070910-DUP1)		Prepared: 07/30/20 14:14 Analyzed: 07/30/20 16:02										
QC Source Sample: MW-06-0720 (A0G0640-01)												
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
Matrix Spike (0070910-MS1)		Prepared: 07/30/20 14:14 Analyzed: 07/30/20 19:41										
QC Source Sample: MW-21-0720 (A0G0640-10)												
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	0.186	0.0100	0.0200	ug/L	1	0.200	ND	93	77 - 121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						

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Lisa Domenighini, Client Services Manager

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Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 101.02207.00001

Project Manager: Mike Staton

Report ID:

A0G0640 - 08 04 20 1155

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0070762							
A0G0640-01	Water	NWTPH-Gx (MS)	07/22/20 06:28	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-02	Water	NWTPH-Gx (MS)	07/22/20 09:43	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-03	Water	NWTPH-Gx (MS)	07/22/20 07:05	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-04	Water	NWTPH-Gx (MS)	07/22/20 08:27	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-05	Water	NWTPH-Gx (MS)	07/22/20 07:38	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-06	Water	NWTPH-Gx (MS)	07/21/20 14:19	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-07	Water	NWTPH-Gx (MS)	07/22/20 09:10	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-08	Water	NWTPH-Gx (MS)	07/22/20 10:17	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-09	Water	NWTPH-Gx (MS)	07/21/20 14:54	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-10	Water	NWTPH-Gx (MS)	07/21/20 15:25	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-11	Water	NWTPH-Gx (MS)	07/21/20 13:03	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-12	Water	NWTPH-Gx (MS)	07/21/20 13:15	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-13	Water	NWTPH-Gx (MS)	07/21/20 12:21	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-14	Water	NWTPH-Gx (MS)	07/21/20 15:30	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-15	Water	NWTPH-Gx (MS)	07/21/20 00:00	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00

BTEX Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0070762							
A0G0640-15	Water	EPA 8260D	07/21/20 00:00	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00

Selected Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0070762							
A0G0640-01	Water	EPA 8260D	07/22/20 06:28	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-02	Water	EPA 8260D	07/22/20 09:43	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-03	Water	EPA 8260D	07/22/20 07:05	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-04	Water	EPA 8260D	07/22/20 08:27	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-05	Water	EPA 8260D	07/22/20 07:38	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-06	Water	EPA 8260D	07/21/20 14:19	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-07	Water	EPA 8260D	07/22/20 09:10	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-08	Water	EPA 8260D	07/22/20 10:17	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00

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SLR Corporation-Bothell

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Bothell, WA 98021

Project: **Sea-Tac Development Site**Project Number: **101.02207.00001**Project Manager: **Mike Staton****Report ID:****A0G0640 - 08 04 20 1155****SAMPLE PREPARATION INFORMATION****Selected Volatile Organic Compounds by EPA 8260D****Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A0G0640-09	Water	EPA 8260D	07/21/20 14:54	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-10	Water	EPA 8260D	07/21/20 15:25	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-11	Water	EPA 8260D	07/21/20 13:03	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-12	Water	EPA 8260D	07/21/20 13:15	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-13	Water	EPA 8260D	07/21/20 12:21	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
A0G0640-14	Water	EPA 8260D	07/21/20 15:30	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00
Batch: 0070775							
A0G0640-12RE1	Water	EPA 8260D	07/21/20 13:15	07/24/20 15:42	5mL/5mL	5mL/5mL	1.00

1,2-Dibromoethane (EDB) by EPA 8260D SIM**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0070910							
A0G0640-01	Water	EPA 8260D SIM	07/22/20 06:28	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-02	Water	EPA 8260D SIM	07/22/20 09:43	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-03	Water	EPA 8260D SIM	07/22/20 07:05	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-04	Water	EPA 8260D SIM	07/22/20 08:27	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-05	Water	EPA 8260D SIM	07/22/20 07:38	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-06	Water	EPA 8260D SIM	07/21/20 14:19	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-07	Water	EPA 8260D SIM	07/22/20 09:10	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-08	Water	EPA 8260D SIM	07/22/20 10:17	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-09	Water	EPA 8260D SIM	07/21/20 14:54	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-10	Water	EPA 8260D SIM	07/21/20 15:25	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-11	Water	EPA 8260D SIM	07/21/20 13:03	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-12	Water	EPA 8260D SIM	07/21/20 13:15	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-13	Water	EPA 8260D SIM	07/21/20 12:21	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00
A0G0640-14	Water	EPA 8260D SIM	07/21/20 15:30	07/30/20 14:14	5mL/5mL	5mL/5mL	1.00

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Lisa Domenighini, Client Services Manager

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SLR Corporation-Bothell

22118 20th Ave SE
Bothell, WA 98021

Project: Sea-Tac Development Site

Project Number: 101.02207.00001

Project Manager: Mike Staton

Report ID:

A0G0640 - 08 04 20 1155

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Apex Laboratories

A handwritten signature in black ink, reading "Lisa A. Domenighini".

Lisa Domenighini, Client Services Manager

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported.
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Project: **Sea-Tac Development Site**

Project Number: **101.02207.00001**

Project Manager: **Mike Staton**

Report ID:

A0G0640 - 08 04 20 1155

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation)

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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CHAIN OF CUSTODY

Lab # ADD0640 COC # of 2

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Project Mgr: Mike Staton Project Name: Sea-Tac Development Site Project #: 101.02207.00001

Address: 22118 20th Ave SE, Bothell, WA Phone: (206) 402-8800 Email: mstaton@slrconsulting.com PO #

Sampled by: Steven Losleben

Site Location: OR CA
AK ID

LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTFH-HCID	NWTFH-DX	NWTFH-GX	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Volat Full List	8082 PCBs	8181 Pest	RCRA Metals (8)	Priority Metals (13)	As, Ba, Be, Bi, Bz, Cd, Cr, Co, Cu, Fe, Hg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn	TOTAL DISS. TCLP	TCLP Metals (8)	Naphthalene	n-Hexane	EOB	Archival	
MW-06-0720	7/24/20	0628	water	5				X																	
MW-07-0720	7/24/20	0945						X																	
MW-09-0720	7/24/20	0705						X																	
MW-12-0720	7/24/20	0902						X																	
MW-13-0720	7/24/20	0738						X																	
MW-17A-0720	7/24/20	1419						X																	
MW-18-0720	7/24/20	0910						X																	
MW-19-0720	7/24/20	1017						X																	
MW-20-0720	7/24/20	1454						X																	
MW-12-0720	7/24/20	1525						X																	

Normal Turn Around Time (TAT) = 4 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	RECEIVED BY:
Signature: <u>Mike Staton</u> Date: <u>7/22/20</u>	Signature: <u>Steven Losleben</u> Date: <u>7/23/20</u>
Printed Name: <u>Mike Staton</u> Time: <u>1400</u>	Printed Name: <u>Steven Losleben</u> Time: <u>1018</u>
Company: <u>SLR</u>	Company: <u>Apex</u>

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Lisa Domenighini, Client Services Manager



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Project: Sea-Tac Development Site

Project Number: 101.02207.00001

Project Manager: Mike Staton

Report ID:

A0G0640 - 08 04 20 1155

APEX LABS COOLER RECEIPT FORM

Client: SLR Element WO#: A0 G0640

Project/Project #: SeaTac Development site / 101.02207.00001

Delivery Info:

Date/time received: 7/23/20 @ 1018 By: (signature)

Delivered by: Apex ☒ Client ☒ ESS ☒ FedEx ☒ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐

Cooler Inspection Date/time inspected: 7/23/20 @ 1018 By: (signature)

Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒

Signed/dated by client? Yes ☒ No ☐

Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>1.9</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>real/gel</u>						
Condition:	<u>good</u>						

Cooler out of temp? (Y/N) ☒ Possible reason why: _____

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA ☒

Out of temperature samples form initiated? Yes/No/NA ☒

Samples Inspection: Date/time inspected: 7/23/20 @ 16:59 By: THH

All samples intact? Yes ☒ No ☐ Comments: _____

Bottle labels/COCs agree? Yes ☒ No ☐ Comments: TB # 2356

COC/container discrepancies form initiated? Yes ☐ No ☒

Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____

Do VOA vials have visible headspace? Yes ☒ No ☐ NA ☐

Comments: 1/5 Equipment Blank has HS

Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒

Comments: _____

Additional information: Tracking # 3950 642/e 8870

Labeled by: (signature) Witness: (signature) Cooler Inspected by: (signature) See Project Contact Form: Y

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Lisa Domenighini, Client Services Manager