CONFIRMATIONAL GROUNDWATER MONITORING REPORT – OCTOBER 2020 SAMPLING EVENT

SeaTac Development Site (MasterPark Lot C Property)

Prepared for:

Dr. Jerome Cruz

Washington Department of Ecology

November 2020

Confirmational Groundwater Monitoring Report - October 2020 Sampling Event

Prepared for:
Dr. Jerome Cruz
Washington Department of Ecology
Northwest Regional Office
3190 – 160th Avenue Southeast
Bellevue, WA 98009-5452

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.

Rachel Kane
Project Geologist

Michael D. Staton, L.G.
Managing Principal

CONTENTS

FIGURES

TABLES

APPENDICES

ACRONYMS

µg/L	micrograms per liter
mg/L	milligrams per liter
Apex	Apex Laboratories, Inc.
BTEX	benzene, toluene, ethylbenzene, and xylenes
CMP	Compliance Monitoring Plan
COC	contaminants of concern
DO	dissolved oxygen
DRO	diesel range organics
Ecology	Washington Department of Ecology
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
ORP	oxygen reduction potential
QA	quality assurance
QC	quality control
SLR	SLR International Corporation

1. INTRODUCTION

On October 19, 2020, SLR International Corporation (SLR) conducted a quarterly confirmational 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. Based on the results of the January and July 2020 performance groundwater monitoring events (SLR, 2020a and SLR, 2020b), it appears that the IAS/SVE system has effectively reduced the petroleum hydrocarbon concentrations in the groundwater beneath the subject property to levels that should naturally attenuate to the below the cleanup levels within a reasonable timeframe. Therefore, the IAS/SVE system was not reactivated after the July 2020 monitoring event.

The October 2020 groundwater monitoring event was the first quarterly confirmational monitoring event at the Site. The confirmational groundwater monitoring program is designed to evaluate the potential rebound of contaminant concentrations after the deactivation of the IAS/SVE system, and if there is minimal rebound, to demonstrate that the contaminant concentrations have been reduced to below the cleanup levels. The confirmational groundwater monitoring activities were conducted in accordance with the Compliance Monitoring Plan (CMP; Golder, 2011) for the Site, as well as with the modifications to the confirmational groundwater monitoring program (SLR, 2020c) of the CMP that were approved by the Washington Department of Ecology (Ecology).

2. GROUNDWATER SAMPLING EVENT

On October 19, 2020, SLR personnel collected groundwater samples from monitoring wells MW-07, MW-12, MW-13, MW-16, MW-17A, MW-18, and PORT-MW-B. The locations of the groundwater monitoring wells that are included in the quarterly confirmational groundwater monitoring program are shown on Figure 2.

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 1.5 to 2.25 gallons of water from the well. During the purging of each well, the pH, specific conductance, temperature, oxidation reduction potential (ORP), dissolved oxygen (DO), and turbidity of the extracted water were measured 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 1. 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 CMP and the modifications to the confirmational groundwater monitoring program, all of the groundwater samples were submitted to Apex for analyses of the groundwater contaminants of concern (COCs) for the Site (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). In addition, the groundwater samples from wells MW-12, MW-16, MW-18, and PORT-MW-B were analyzed for natural attenuation parameters (nitrate and sulfate by EPA Method 300.0; total and dissolved iron by EPA Method 6020A; total manganese by EPA Method 6020A; alkalinity by Standard Method 2320B; dissolved methane by Method RSK 175; and total organic carbon by Standard Method SM 5310C).

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.

2.1 GROUNDWATER MONITORING RESULTS

On October 19, 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 45.01 to 107.37 feet below the top of each well casing. The groundwater elevations in the wells ranged from 309.24 to 312.63 above mean sea level (MSL). The depth to groundwater measurements and groundwater elevations in the monitoring wells on October 19, 2020, are presented in Table 2.

Based on the groundwater elevations on October 19, 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-01 and MW-10 were not used to evaluate the groundwater flow direction. MW-01 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 October 19, 2020, is presented on Figure 3.

2.2 GROUNDWATER SAMPLE ANALYTICAL RESULTS – CONTAMINANTS OF CONCERN

The groundwater sample analytical results showed that the sample from well MW-07 contained a GRO concentration (1.74 milligrams per liter [mg/L]) that exceeded the MTCA Method A cleanup level (0.80 mg/L when benzene is present). The duplicate sample from MW-07 (labeled MW-37-1020) also contained a GRO concentration (2.07 mg/L) that exceeded the Method A cleanup level. The sample from MW-07 also contained benzene, toluene, ethylbenzene, total xylenes, and naphthalene concentrations (0.84, 2.5, 9.7, 14.6, and 5.8 micrograms per liter [µg/L], respectively) greater than the method reporting limits (MRLs), but below the Method A cleanup levels (5, 1,000, 700, 1,000, and 160 µg/L, respectively). The groundwater sample from MW-12 contained total xylenes and n-hexane concentrations (6.2 and 2.1 µg/L, respectively) below the Method A and Method B cleanup levels (1,000 and 480 µg/L, respectively). Benzene was detected in the samples collected from MW-13 and MW-16 at concentrations (0.21 and 0.29 µg/L, respectively) below the Method A cleanup level. 1,2-dibromethane (EDB) was not detected in any of the samples, however, the method detection limit (MDL; 0.02 µg/L) exceeded the Method A cleanup level (0.01 µg/L) in the samples collected from MW-07 and MW-13. The groundwater samples collected from wells MW-17A, MW-18, and PORT-MW-B did not contain any detected petroleum hydrocarbon analyte concentrations.

The October 2020 groundwater sample analytical results for the groundwater COCs are presented in Table 1, and the GRO and benzene concentrations are also presented on Figure 2. The groundwater sample analytical results from the October 2020 sampling event (groundwater COCs only), as well as from the previous groundwater sampling events, are presented in data tables and on trend plots in Appendix B. The laboratory reports from the October 2020 sampling event are included in Appendix C.

2.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS – NATURAL ATTENUATION PARAMETERS

The groundwater samples from wells MW-12, MW-16, MW-18, and PORT-MW-B were analyzed for natural attenuation parameters. As described above, MW-12 and MW-16 contained low petroleum hydrocarbon concentrations and MW-18 and PORT-MW-B did not contain detectable petroleum hydrocarbon concentrations in October 2020. The groundwater sample analytical results showed that total iron and dissolved iron were detected in the sample collected from MW-16 at concentrations of 119 and 61.2 µg/L, respectively. Total iron and dissolved iron were not detected above the MRLs in the samples collected from MW-12, MW-18, or PORT-MW-B. Total manganese concentrations ranged from 3.56 to 2,250 µg/L and sulfate concentrations ranged from 5.43 to 21.3 µg/L in the samples collected from all of the wells. Nitrate-Nitrogen was detected in the groundwater samples from MW-18 and PORT-MW-B (0.33 and 6.35 mg/L, respectively) and was not detected above the MRL in the samples from MW-12 and MW-16. Total organic carbon was detected at concentrations of 4.43 and 2.71 mg/L in the samples from MW-12 and MW-18, respectively, and was not detected above the MRL in the samples from MW-16 and PORT-MW-B. Dissolved methane was detected at concentrations of 0.14 and 0.23 µg/L in the samples collected from MW-12, and MW-16, respectively, and not detected above the MRL in the samples from MW-18 and PORT-MW-B. Total alkalinity ranged from 20.4 to 164 mg $CaCO_3$/L in all of the samples.

The October 2020 groundwater sample analytical results for the natural attenuation parameters are presented in Table 3. The laboratory reports from the October 2020 sampling event are included in Appendix C.

3. 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 (labeled MW-37-1020) collected from well MW-07 were within an acceptable range.

4. CONCLUSIONS

On October 19, 2020, SLR conducted the first quarterly confirmational groundwater monitoring event at the SeaTac Development Site. The objectives of the confirmational groundwater monitoring program are to evaluate the potential rebound of contaminant concentrations after the deactivation of the IAS/SVE system in July 2020, and if there is minimal rebound, to demonstrate that the contaminant concentrations have been reduced to below the cleanup levels.

The groundwater sample analytical results from the January and July 2020 performance groundwater sampling events showed that the IAS/SVE system operations had 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 that exceeded the Method A cleanup level and a GRO concentration at MW-07 that equaled the Method A cleanup level in July 2020 (SLR, 2020b). The groundwater sample analytical results from the October 2020 confirmational groundwater sampling event showed that petroleum hydrocarbon concentrations beneath the subject property continue to be below the Method A cleanup levels, except for a GRO concentration (1.74 mg/L) at MW-07. The groundwater sample analytical results indicate that there is some localized rebound of the GRO concentration at MW-07; however, it is not to a level that would justify reactivation of the IAS/SVE system.

The petroleum hydrocarbon concentrations in the October 2020 groundwater sample from well MW-16 were below the Method A cleanup levels for the first time, which indicates that the IAS/SVE system operations from September 2019 through July 2020 influenced the groundwater to the northwest of the subject property. Tables and trend graphs that show the GRO and benzene concentrations over time, as well as the DRO concentrations over time, are presented in Appendix B.

Natural attenuation parameters are geochemical indicators that are either consumed or produced during biodegradation and can serve as evidence of natural attenuation. Inverse relationships between contaminant concentration and dissolved oxygen, nitrate, sulfate, and ORP concentrations are consistent with the occurrence of biodegradation, as are positive relationships between contaminant concentration and ferrous iron, methane, manganese, and alkalinity concentrations (Ecology, 2005). The concentrations of the natural attenuation parameters monitored in October 2020 strongly indicate that natural attenuation of the remaining petroleum hydrocarbons in the groundwater is occurring. Specifically, as illustrated on Figure 4, nitrate, sulfate, and to a lesser degree ORP, all trended lower in the samples with detectable GRO (MW-12 and MW-16) as opposed to the samples with no detectable GRO (MW-18 and PORT-MW-B). Similarly, manganese, methane, and iron (total and dissolved) all trended higher in the samples with detectable GRO as opposed to the samples with no detectable GRO. In addition, the low DO and ORP concentrations in the purge water from the only well (MW-07) that contained a GRO concentration that exceeded the MTCA Method A cleanup level also indicate that natural attenuation of the petroleum hydrocarbons is occurring.

5. REFERENCES

Golder Associates, Inc. 2011. *Attachment E, Compliance Monitoring Plan, Sea-Tac Development Site, SeaTac, Washington.* November 2.

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. 2019b. *Performance Groundwater Monitoring Report – July 2019 Sampling Event, SeaTac Development Site (MasterPark Lot C Property).* October.

SLR International Corporation. 2020a. *Performance Groundwater Monitoring Report – January 2020 Sampling Event, SeaTac Development Site (MasterPark Lot C Property).* March.

SLR International Corporation. 2020b. *Performance Groundwater Monitoring Report – July 2020 Sampling Event, SeaTac Development Site (MasterPark Lot C Property).* September.

SLR International Corporation. 2020c. *Request for Modifications to Confirmational Groundwater Monitoring Program, SeaTac Development Site (MasterPark Lot C Property), SeaTac, Washington.* September 23.

Washington Department of Ecology. 2005. *User's Manual: Natural Attenuation Analysis Tool Package for Petroleum-Contaminated Ground Water*. July.

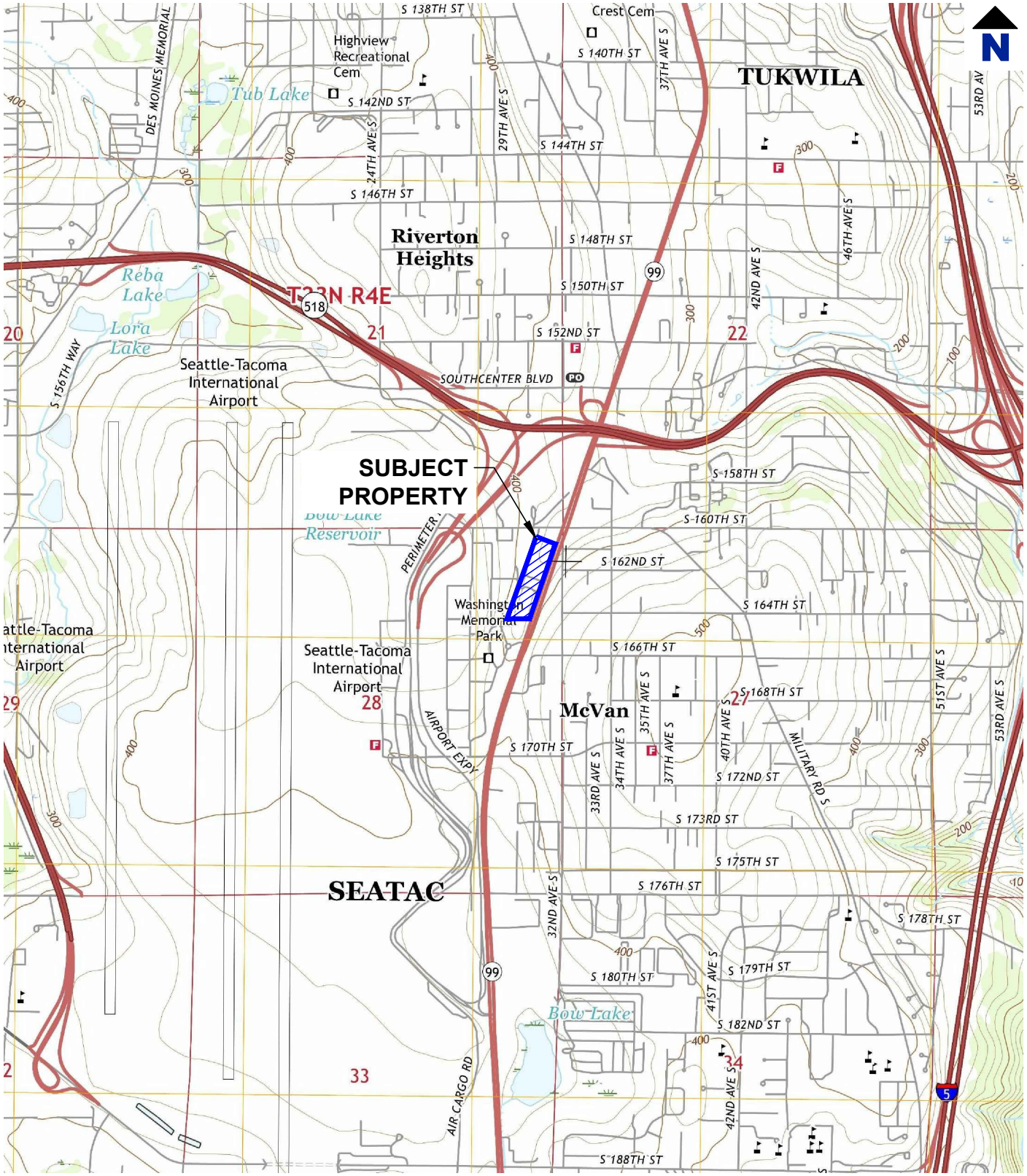
Washington Department of Ecology. 2019. Email from Jerome Cruz of Ecology to Mike Staton of SLR Re: SeaTac Development Air Emission Rate Modeling and Request to Remove Vapor Treatment System. September 3.

LIMITATIONS

The services described in this work product were performed in accordance with generally accepted professional consulting principles and practices. No other representations or warranties, expressed or implied, are made. These services were performed consistent with our agreement with our client. This work product is intended solely for the use and information of our client unless otherwise noted. Any reliance on this work product by a third party is at such party's sole risk.

Opinions and recommendations contained in this work product are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this work product.

FIGURES



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	Fig. No. 1
File Name Figure 1.dwg	Project No. 101.01839.00002	

Last Saved: September 20, 2019 11:41:25 AM by rkane Drawing path: N:\Bothell\1 PROJECTS\SeaTac Development Site\Figures\Figure 1.dwg

N

PORT OF SEATTLE PROPERTY

PORT-MW-B

PORT-MW-B	
GRO	<0.10
B	<0.20

MW-22

SOUTH 160TH STREET

MW-15

MW-23

MW-16

MW-16	
GRO	0.19
B	0.29

IAS/SVE SYSTEM ENCLOSURE

LOUDEN PROPERTY

PARKING LOT

PORT OF SEATTLE PROPERTY

MW-12

MW-12	
GRO	0.13
B	<0.20

MW-07	
GRO	**1.74**
B	0.84

MW-07

MW-11

MW-18

MW-18	
GRO	<0.10
B	<0.20

MW-19

MW-17A

MW-17A	
GRO	<0.10
B	<0.20

MW-13	
GRO	0.53
B	0.21

MW-13

MW-01

MW-10

MW-14

MASTERPARK LOT C PROPERTY (SUBJECT PROPERTY)

MW-20

MW-08A

MW-09

INTERNATIONAL BLVD

PARKING LOT

MW-05

MW-21

MW-06

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 = MILIGRAMS PER LITER
4. µg/L = MICROGRAMS PER LITER

0 100 200 300

SCALE IN FEET

LEGEND

MW-14 SITE MONITORING WELL LOCATION AND DESIGNATION - GROUNDWATER ELEVATIONS MEASURED

MW-09 SITE MONITORING WELL LOCATION AND DESIGNATION - CONFIRMATIONAL MONITORING WELL

SUBJECT PROPERTY LINE

FENCE

MW-07	
GRO	**1.74**
B	0.84

GASOLINE-RANGE ORGANICS

BENZENE

SAMPLE LOCATION

ANALYTICAL RESULT IN mg/L

ANALYTICAL RESULT IN µg/L

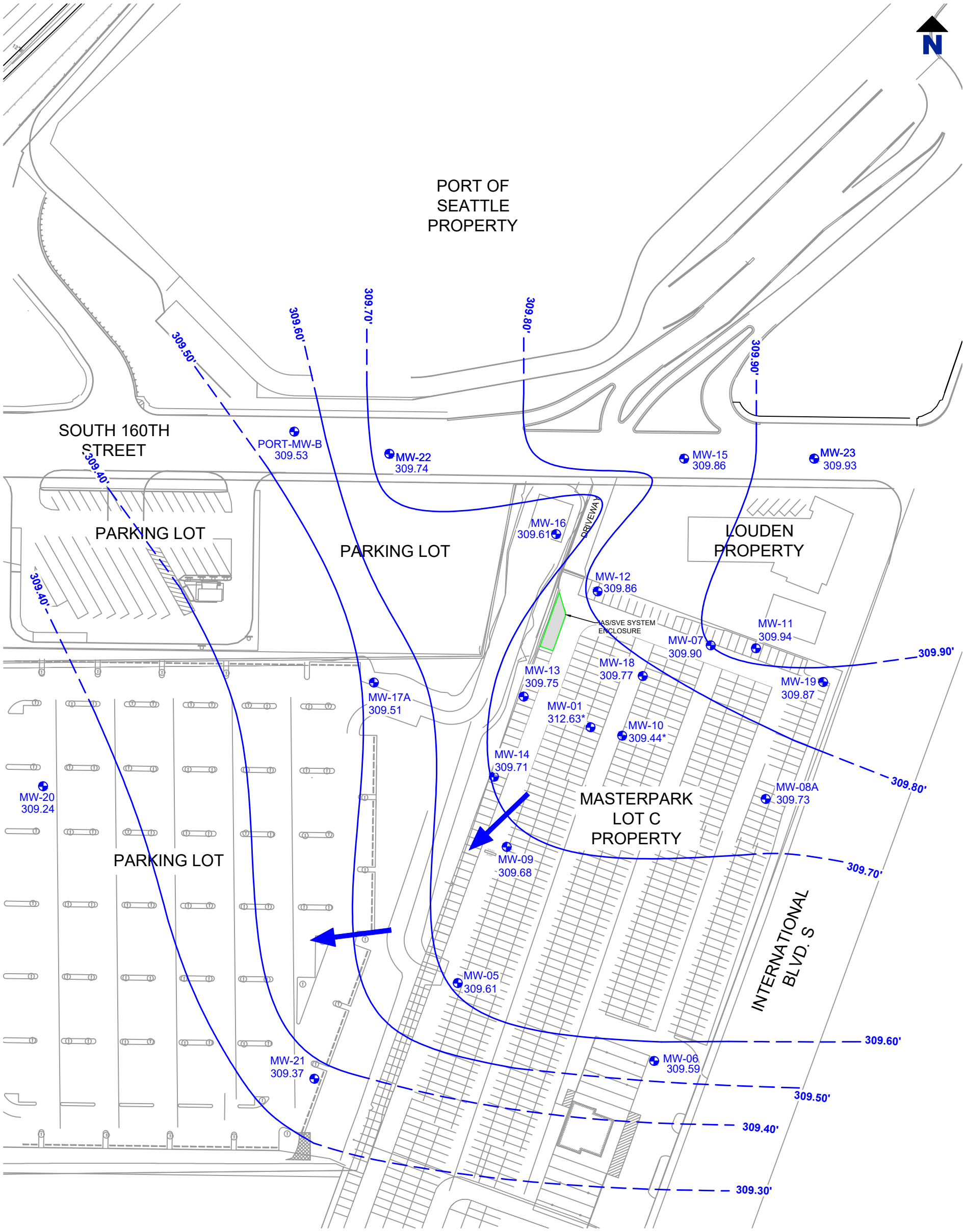
SLR

SEATAC DEVELOPMENT SITE
SEATAC, WASHINGTON

Drawing
GRO AND BENZENE CONCENTRATIONS IN GROUNDWATER SAMPLES - OCTOBER 2020

Date	November 19, 2020	Scale	AS SHOWN	Fig. No.
File Name	01-02	Project No.	128.02207.00002	2

Last Saved: November 19, 2020 12:31:58 PM by rkane Drawing path: N:\Bothell\1 PROJECTS\SeaTac Development Site\Figures\October 2020 GW Sampling Report\01-02.dwg



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 MEASURMENT, THE GROUDWATER ELEVATION WAS NOT USED FOR CONTOURING.

0 100 200 300
SCALE IN FEET

LEGEND

MW-13	SITE MONITORING WELL LOCATION AND DESIGNATION
309.75	GROUNDWATER SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL) ON OCTOBER 19, 2020
309.70'	GROUNDWATER SURFACE ELEVATION CONTOUR LINE (FEET ABOVE MEAN SEA LEVEL)
	GENERAL GROUNDWATER FLOW DIRECTION

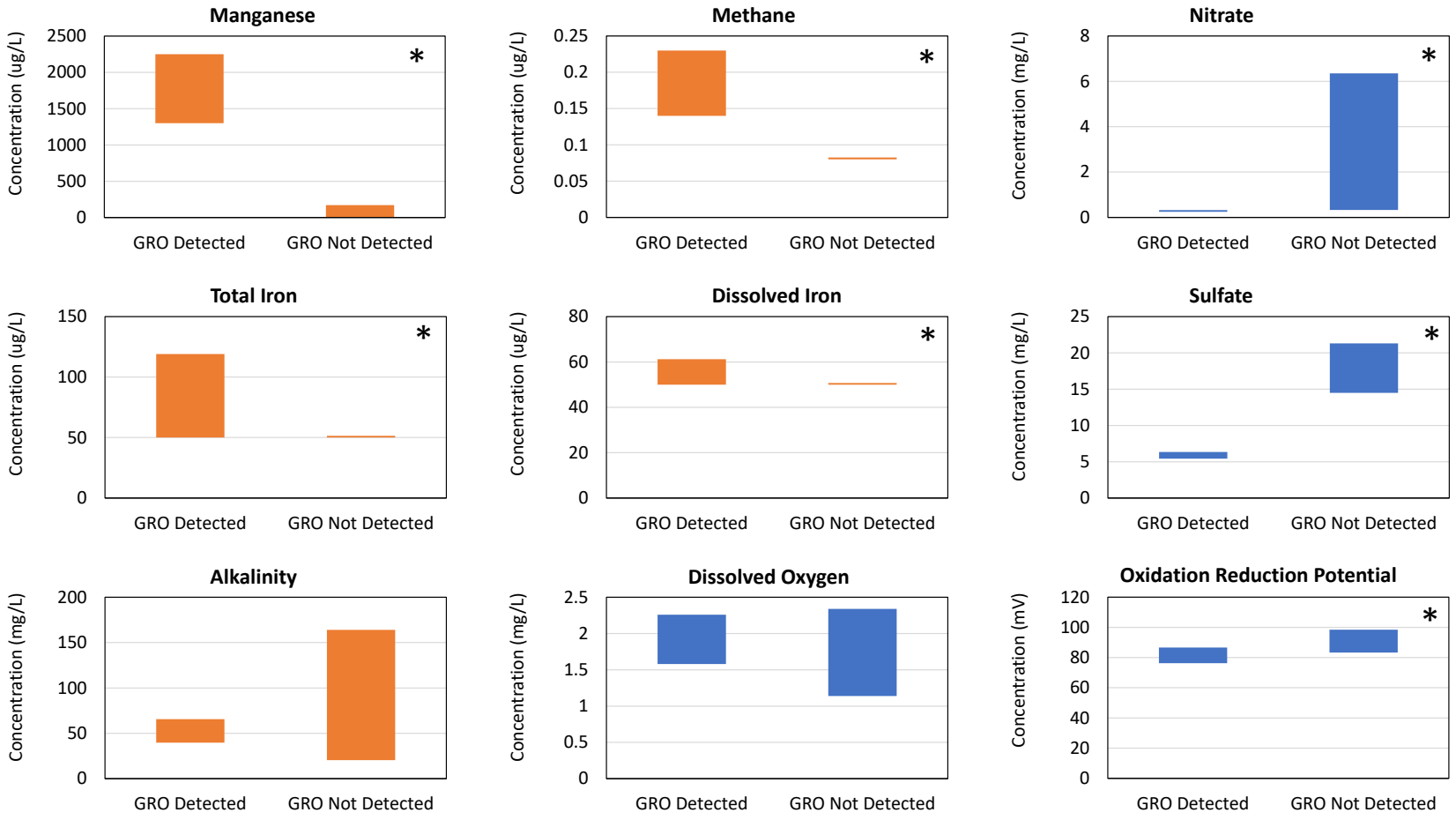
SEATAC DEVELOPMENT SITE
SEATAC, WASHINGTON

Drawing
GROUNDWATER ELEVATION CONTOUR MAP - OCTOBER 19, 2020

Date	November 6, 2020	Scale	AS SHOWN	Fig. No. 3
File Name	01-03	Project No.	128.02207.00002	

Last Saved: November 19, 2020 10:29:13 AM by rkane Drawing path: N:\Bothell\1 PROJECTS\SeaTac Development Site\Figures\October 2020 GW Sampling Report\01-03.dwg

Figure 4
Range of Natural Attenuation Parameter Concentrations in Groundwater Samples with and without GRO
October 2020 Groundwater Sampling Event
SeaTac Development Site
SeaTac, Washington



Notes:

GRO Detected represents MW-12 and MW-16, in which GRO was 0.13 and 0.19 mg/L, respectively.

GRO Not Detected represents MW-18 and PORT-MW-B, in which GRO was <0.10 mg/L.

Parameters for which a relative decrease is consistant with biodegradation

Parameters for which a relative increase is consistant with biodegradation

* Denotes that observed trend is consistant with the occurance of natural attenuation.

TABLES

Table 1
Groundwater Field Parameters and Sample Analytical Results for Groundwater COCs
October 2020 Sampling Event
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)	Naphthalene[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-07	10/19/20	48.79	6.32	15.6	205	1.73	62.2	6.59	**1.74**	0.84	2.5	9.7	14.6	<0.02 [i]	<0.20	5.8	NA	NA	NA	NA
MW-07 (duplicate[j])	10/19/20	--	--	--	--	--	--	--	**2.07**	0.82	2.7	10	14	<0.02 [i]	<2.0	5.7	NA	NA	NA	NA
MW-12	10/19/20	54.97	6.85	15.5	129	1.58	86.6	2.87	0.13	<0.20	<1.0	<0.50	6.2	<0.01	2.1	<4.0	NA	NA	NA	NA
MW-13	10/19/20	55.67	6.72	14.1	274	2.04	82.6	2.17	0.53	0.21	<1.0	<0.50	<1.50	<0.02 [i]	<2.0	<2.0	NA	NA	NA	NA
MW-16	10/19/20	68.02	6.55	13.4	237	2.26	76.3	2.54	0.19	0.29	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-17A	10/19/20	84.93	5.86	14.3	182	3.02	112.4	13.2	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
MW-18	10/19/20	50.68	7.51	16.4	390	2.34	83.3	1.48	<0.10	<0.20	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	NA	NA	NA	NA
PORT-MW-B	10/19/20	90.30	6.22	15.0	194	1.14	98.4	3.27	<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

COCs = Contaminants of concern

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-37-1020 and was collected from MW-07.

Table 2
Groundwater Monitoring Data - October 19, 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	10/19/20	48.75	312.63
MW-05	364.26	48 to 58	10/19/20	54.65	309.61
MW-06	369.68	50 to 60	10/19/20	60.09	309.59
MW-07	358.69	43.5 to 53.5	10/19/20	48.79	309.90
MW-08A	359.16	44 to 54	10/19/20	49.43	309.73
MW-09	362.13	47.5 to 57	10/19/20	52.45	309.68
MW-10	360.18	80 to 90	10/19/20	50.74	309.44
MW-11	357.53	42 to 57	10/19/20	47.59	309.94
MW-12	364.83	52 to 67	10/19/20	54.97	309.86
MW-13	365.42	50 to 65	10/19/20	55.67	309.75
MW-14	363.76	50 to 65	10/19/20	54.05	309.71
MW-15	364.67	50 to 65	10/19/20	54.81	309.86
MW-16	377.63	64 to 74	10/19/20	68.02	309.61
MW-17A	394.44	80 to 95	10/19/20	84.93	309.51
MW-18	360.45	47 to 62	10/19/20	50.68	309.77
MW-19	356.61	43 to 58	10/19/20	46.74	309.87
MW-20	416.61	103 to 113	10/19/20	107.37	309.24
MW-21	412.85	95 to 110	10/19/20	103.48	309.37
MW-22	393.31	80 to 95	10/19/20	83.57	309.74
MW-23	354.94	42.5 to 57.5	10/19/20	45.01	309.93
PORT-MW-B	399.83	79 to 99	10/19/20	90.30	309.53

Notes:
NM = Not measured.
[a] The top of well casing elevations were surveyed relative to mean seal level.

Table 3
Groundwater Sample Analytical Results for Natural Attenuation Parameters
October 2020 Sampling Event
SeaTac Development Site
SeaTac, Washington

Well ID	Date Sampled	Total Iron[a] (µg/L)	Dissolved Iron[a] (µg/L)	Total Manganese[a] (µg/L)	Nitrate-Nitrogen[b] (mg/L)	Sulfate[b] (mg/L)	Total Organic Carbon[c] (mg/L)	Total Alkalinity[d] (mg $CaCO_3$/L)	Dissolved Methane[e] (µg/L)
MW-12	10/19/20	<50	<50	1,300	<0.25	6.34	4.43	65.6	0.14 J
MW-16	10/19/20	119	61.2	2,250	<0.25	5.43	<1.0	39.7	0.23 J
MW-18	10/19/20	<50	<50	171	0.33	21.3	2.71	164	<0.08
PORT-MW-B	10/19/20	<50	<50	3.56	6.35	14.5	<1.0	20.4	<0.08

Notes:
mg/L = Milligrams per liter
µg/L = Micrograms per liter
$CaCO^3$ = Calcium Carbonate
J = Estimated value.
[a] Analyzed by EPA Method 6020A (ICPMS)
[b] Analyzed by EPA Method 300.0 Anions by Ion Chromatography.
[c] Analyzed by Standard Method 5310C.
[d] Analyzed by Standard Method 2320B.
[e] Analyzed by RSK-175.

APPENDIX A

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEETS

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. 128.02207.00002 | Purged By: SML | Well I.D.: MW-7

Project Name: SeaTac Development Site | Sampled By: SML | Sample I.D.: MW-7-1020

Location: 16025 International Boulevard, SeaTac, Washington | QA Samples: MW-37-1020 @ 1510

Date Purged: 10/19/20 | Start (2400hr): 1440 | End (2400hr): 1458

Date Sampled: 10/19/20 | Sample Time (2400hr): 1458

Casing Diameter:	2" X	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) = 52.97 | Tubing Volume (gal) = ___

Depth to water (feet) = 48.79 | 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 (NTU) ~~(Visual)~~	Color (Visual)
~~[illegible]~~	~~[illegible]~~								
0	1440	16.41	0.158	0.104	3.99	6.19	96.1	4.32	clear
0.25	1443	15.65	0.202	0.131	2.10	6.34	79.3	36.0	clear
0.5	1446	15.52	0.203	0.132	1.91	6.22	79.7	36.5	clear
0.75	1449	15.52	0.204	0.132	1.84	6.24	75.5	15.3	clear
1.0	1452	15.62	0.205	0.133	1.77	6.30	68.3	14.8	clear
1.25	1455	15.55	0.205	0.133	1.75	6.31	64.1	7.60	clear
1.5	1458	15.56	0.205	0.133	1.73	6.32	62.2	6.59	clear

PURGING & SAMPLING EQUIPMENT

- X Well Wizard Bladder Pump
- ___ Active Extraction Well Pump
- ___ Submersible Pump
- ___ Peristaltic Pump
- Other: ___
- Pump Intake Depth: 50.95 (feet)
- ___ Bailer (disposable)
- ___ Bailer (PVC)
- ___ Bailer (Stainless Steel)
- X Dedicated tubing

SAMPLE VESSELS

- ___ 40mL VOA
- 5 40mL VOA w/ HCL
- ___ ___mL amber glass
- ___ ___mL amber glass w/ HCl
- ___ ___mL HDPE
- ___ ___mL HDPE w/ HNO3
- ___ ___mL HDPE w/ H2SO4

Well Integrity: Good | Odor: No

Remarks: Duplicate: MW-37-1020 @ 1510 : 5 40mL VOA w/ HCl

Signature: [signature]

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. 128.02207.00002 | Purged By: SML | Well I.D.: MW-12
Project Name: SeaTac Development Site | Sampled By: SML | Sample I.D.: MW-12-1020
Location: 16025 International Boulevard, SeaTac, Washington | QA Samples: 0

Date Purged: 10/19/20 | Start (2400hr): 1134 | End (2400hr): 1155
Date Sampled: 10/19/20 | Sample Time (2400hr): 1155

Casing Diameter: 2" X | 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) = 64.75 | Tubing Volume (gal) = ___
Depth to water (feet) = 54.97 | 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 (NTU) ~~(Visual)~~	Color (Visual)
0	1134	16.35	0.222	0.144	8.41	7.43	78.5	3.70	clear
0.25	1137	16.00	0.086	0.056	3.86	5.97	100.9	4.35	clear
0.5	1140	15.67	0.112	0.073	2.65	6.31	106.3	3.09	clear
0.75	1143	15.69	0.119	0.077	2.19	6.50	98.9	2.74	clear
1.0	1146	15.72	0.123	0.080	1.96	6.66	91.6	2.70	clear
1.25	1149	15.59	0.127	0.083	1.77	6.76	88.3	2.94	clear
1.5	1152	15.57	0.127	0.083	1.65	6.76	86.1	2.90	clear
1.75	1155	15.53	0.129	0.086	1.58	6.85	86.6	2.87	clear

PURGING & SAMPLING EQUIPMENT

X Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: ___
Pump Intake Depth: 57.95 (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
X Dedicated tubing

SAMPLE VESSELS

___ 40mL VOA
6 40mL VOA w/ HCL
___ ___mL amber glass
NA ___mL amber glass w/ HCl
1 250 mL HDPE
2 250 mL HDPE w/ HNO3
1 250 mL HDPE w/ H2SO4

Well Integrity: Good | Odor: No
Remarks: NA

Signature:

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. 128.02207.00002 | Purged By: SML | Well I.D.: MW-13
Project Name: SeaTac Development Site | Sampled By: SML | Sample I.D.: MW-13-1020
Location: 16025 International Boulevard, SeaTac, Washington | QA Samples: 0

Date Purged: 10/19/20 | Start (2400hr): 1516 | End (2400hr): 1534
Date Sampled: 10/19/20 | Sample Time (2400hr): 1534

Casing Diameter: 2" X | 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) = 65.40 | Tubing Volume (gal) = ___
Depth to water (feet) = 55.67 | 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 (NTU) (~~Visual~~)	Color (Visual)
0	1516	14.30	0.261	0.170	3.50	6.61	79.9	1.38	clear
0.25	1519	14.15	0.271	0.176	2.58	6.47	83.8	4.55	clear
0.5	1522	14.16	0.272	0.176	2.47	6.45	86.8	2.64	clear
0.75	1525	14.16	0.270	0.176	2.34	6.53	86.1	1.61	clear
1.0	1528	14.13	0.272	0.177	2.17	6.65	84.2	1.78	clear
1.25	1531	14.11	0.272	0.177	2.09	6.72	82.4	2.04	clear
1.5	1534	14.12	0.274	0.178	2.04	6.72	82.6	2.17	clear

PURGING & SAMPLING EQUIPMENT

X Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: ___
Pump Intake Depth: 56.50 (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
X Dedicated tubing

SAMPLE VESSELS

___ 40mL VOA
5 40mL VOA w/ HCL
___ ___mL amber glass
___ ___mL amber glass w/ HCl
___ ___mL HDPE
___ ___mL HDPE w/ HNO3
___ ___mL HDPE w/ H2SO4

Well Integrity: Good | Odor: No
Remarks: N/A

Signature:

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. 128.02207.00002 | Purged By: SML | Well I.D.: MW-16
Project Name: SeaTac Development Site | Sampled By: SML | Sample I.D.: MW-16-1020
Location: 16025 International Boulevard, SeaTac, Washington | QA Samples: 0

Date Purged: 10/19/20 | Start (2400hr): 1311 | End (2400hr): 1332
Date Sampled: 10/19/20 | Sample Time (2400hr): 1332

Casing Diameter:	2" X	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) = 73.80 | Tubing Volume (gal) = ___
Depth to water (feet) = 68.02 | 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)
0	1311	14.45	0.298	0.194	7.04	7.16	86.7	26.3	clear
0.25	1314	13.93	0.252	0.164	4.00	6.33	104.4	7.50	clear
0.5	1317	13.94	0.241	0.157	3.18	6.34	97.8	7.61	clear
0.75	1320	13.92	0.241	0.157	2.92	6.38	93.4	7.11	clear
1.0	1323	13.91	0.238	0.155	2.69	6.43	87.8	5.87	clear
1.25	1326	13.91	0.238	0.155	2.47	6.50	81.6	3.93	clear
1.5	1329	13.91	0.237	0.154	2.32	6.54	77.9	2.87	clear
1.75	1332	13.91	0.237	0.154	2.26	6.55	76.3	2.54	clear

PURGING & SAMPLING EQUIPMENT

- X Well Wizard Bladder Pump
- ___ Active Extraction Well Pump
- ___ Submersible Pump
- X Peristaltic Pump
- Other: ___
- Pump Intake Depth: 71.20 (feet)
- ___ Bailer (disposable)
- ___ Bailer (PVC)
- ___ Bailer (Stainless Steel)
- X Dedicated tubing

SAMPLE VESSELS

- ___ 40mL VOA
- 8 40mL VOA w/ HCL
- ___ ___mL amber glass
- ___ ___mL amber glass w/ HCl
- 1 250 mL HDPE
- 2 250 mL HDPE w/ HNO3
- 1 250 mL HDPE w/ H2SO4
- ___

Well Integrity: Good | Odor: No
Remarks: N/A

Signature:

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. 128.02207.00002 | Purged By: SML | Well I.D.: MW-17A
Project Name: SeaTac Development Site | Sampled By: SML | Sample I.D.: MW-17A-1020
Location: 16025 International Boulevard, SeaTac, Washington | QA Samples: 0

Date Purged: 10/19/20 | Start (2400hr): 1356 | End (2400hr): 1423
Date Sampled: 10/19/20 | Sample Time (2400hr): 1423

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

Total depth (feet) = 94.77 | Tubing Volume (gal) =
Depth to water (feet) = 84.93 | 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 (NTU) (~~Visual~~)	Color (Visual)
0	1356	15.01	0.146	0.121	5.48	6.31	91.3	3.18	clear
0.25	1359	14.49	0.182	0.118	5.35	5.95	105.9	6.62	clear
0.5	1402	14.30	0.183	0.119	4.50	5.75	116.4	19.3	clear
0.75	1405	14.16	0.184	0.120	3.74	5.70	118.2	37.5	clear
1.0	1408	14.15	0.183	0.119	3.46	5.70	117.3	36.2	clear
1.25	1411	14.10	0.184	0.120	3.35	5.74	115.9	27.7	clear
1.5	1414	14.11	0.184	0.120	3.25	5.77	114.7	21.7	clear
1.75	1417	14.12	0.182	0.119	3.17	5.79	114.2	17.4	clear
2.0	1420	14.14	0.181	0.118	3.06	5.81	112.3	15.1	clear
2.25	1423	14.25	0.182	0.118	3.02	5.86	112.4	13.2	clear

PURGING & SAMPLING EQUIPMENT

- X Well Wizard Bladder Pump
- ___ Active Extraction Well Pump
- ___ Submersible Pump
- ___ Peristaltic Pump
- Other: ___
- Pump Intake Depth: 89.30 (feet)
- ___ Bailer (disposable)
- ___ Bailer (PVC)
- ___ Bailer (Stainless Steel)
- X Dedicated tubing

SAMPLE VESSELS

- ___ 40mL VOA
- 5 40mL VOA w/ HCL
- ___ ___mL amber glass
- ___ ___mL amber glass w/ HCl
- ___ ___mL HDPE
- ___ ___mL HDPE w/ HNO3
- ___ ___mL HDPE w/ H2SO4

Well Integrity: Good | Odor: No
Remarks: N/A

Signature: [signature] [signature] | Page 1 of _1_

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. 128.02207.00002 | Purged By: SML | Well I.D.: MW-18
Project Name: SeaTac Development Site | Sampled By: SML | Sample I.D.: MW-18-1020
Location: 16025 International Boulevard, SeaTac, Washington | QA Samples: 0

Date Purged: 10/19/20 | Start (2400hr): 1222 | End (2400hr): 1240
Date Sampled: 10/19/20 | Sample Time (2400hr): 1240

Casing Diameter:	2" X	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) = 61.25 | Tubing Volume (gal) = ___
Depth to water (feet) = 50.68 | 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~~ NTU)	Color (Visual)
0	1222	17.63	0.392	0.255	3.51	6.57	90.9	3.22	clear
0.25	1225	16.89	0.396	0.257	2.59	7.12	86.2	4.11	clear
0.5	1228	16.55	0.394	0.256	2.46	7.40	89.0	2.79	clear
0.75	1231	16.47	0.396	0.257	2.42	7.39	90.7	2.42	clear
1.0	1234	16.43	0.393	0.256	2.40	7.41	88.8	2.00	clear
1.25	1237	16.42	0.392	0.255	2.37	7.48	85.2	1.95	clear
1.5	1240	16.41	0.390	0.253	2.34	7.51	83.3	1.48	clear

PURGING & SAMPLING EQUIPMENT

X Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: ___
Pump Intake Depth: 53.05 (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
X Dedicated tubing

SAMPLE VESSELS

___ 40mL VOA
4 40mL VOA w/ HCL
___ ___mL amber glass
___ ___mL amber glass w/ HCl
1 250 mL HDPE
2 250 mL HDPE w/ HNO3
1 250 mL HDPE w/ H2SO4

Well Integrity: Good | Odor: No
Remarks: NA

Signature: [signature]

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. 128.02207.00002 | Purged By: SML | Well I.D.: PORT-MW-B-~~1020~~

Project Name: SeaTac Development Site | Sampled By: SML | Sample I.D.: PORT-MW-B-1020

Location: 16025 International Boulevard, SeaTac, Washington | QA Samples: _____

Date Purged: 10/19/20 | Start (2400hr): 1025 | End (2400hr): 1049

Date Sampled: 10/19/20 | Sample Time (2400hr): 1049

Casing Diameter:	2" X	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) = 99.15 | Tubing Volume (gal) = _____

Depth to water (feet) = 90.30 | 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 (NTU) ~~(Visual)~~	Color (Visual)
0	1025	15.46	1.480	1.061	1.40	5.39	112.4	8.18	clear
0.25	1028	15.25	0.500	0.326	1.62	6.07	112.3	8.73	clear
0.5	1031	14.93	0.292	0.190	0.81	6.02	108.9	11.0	clear
0.75	1034	14.63	0.234	0.152	1.30	6.03	107.9	6.18	clear
1.0	1037	14.85	0.209	0.136	1.09	6.03	106.8	5.55	clear
1.25	1040	14.67	0.201	0.130	1.38	6.09	103.7	4.04	clear
1.5	1043	14.96	0.194	0.127	1.29	6.19	98.1	3.68	clear
1.75	1046	14.99	0.193	0.126	1.26	6.21	97.7	3.40	clear
2.0	1049	15.03	0.194	0.126	1.14	6.22	96.4	3.27	clear

PURGING & SAMPLING EQUIPMENT

- X Well Wizard Bladder Pump
- ___ Active Extraction Well Pump
- ___ Submersible Pump
- X Peristaltic Pump
- Other: _____
- Pump Intake Depth: 93.72 (feet)
- ___ Bailer (disposable)
- ___ Bailer (PVC)
- ___ Bailer (Stainless Steel)
- X Dedicated tubing

SAMPLE VESSELS

- ___ 40mL VOA
- 6 40mL VOA w/ HCL
- ___ ___mL amber glass
- ___ ___mL amber glass w/ HCl
- 1 250 mL HDPE
- 2 250 mL HDPE w/ HNO3
- 1 250 mL HDPE w/ H2SO4

Well Integrity: Good | Odor: No

Remarks: N/A

Signature: [signature]

Page 1 of _1_

APPENDIX B

DATA TABLES AND TREND GRAPHS

Table B-1
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	1.6	0.17	<0.20	<0.10	<0.20
01/29/20	358.69	48.12	310.57	6.72	14.6	201	0.86	NM	0.75	0.39	8.1	2.3	11.0	<0.02[e]	6.97	5.1	NA	NA	<0.081	<0.16
07/22/20	358.69	48.43	310.26	6.03	16.1	139	0.29	NM	0.80	<0.20	<1.0	2.2	11.9	<0.01	<2.0	2.9	NA	NA	NA	NA
10/19/20	358.69	48.79	309.90	6.32	15.6	205	1.73	6.59	**1.74**	0.84	2.5	9.7	14.6	<0.02[e]	<0.20	5.8	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-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	3.02	**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	6.60	**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
10/19/20	364.83	54.97	309.86	6.85	15.5	129	1.58	2.87	0.13	<0.20	<1.0	<0.50	6.2	<0.01	2.1	<4.0	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-3
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
10/19/20	365.42	55.67	309.75	6.72	14.1	274	2.04	2.17	0.53	0.21	<1.0	<0.50	<1.50	<0.20[e]	<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-16
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)
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**
11/13/07	376.36	65.95	310.41	--	--	--	--	--	**26.0**	**160**	320	**830**	**1,733**	NA	NA	NA	NA	NA
05/22/09	376.36	66.56	309.80	6.33	15.4	440	0.35	3.97	**28.0**	**180**	67.0	**1,200**	**1,800**	<0.10[e]	240	**350**	NA	NA
12/07/09	376.36	66.82	309.54	6.50	12.7	473	0.25	NM	**10.0**	**69.0**	67.0	580	490	**0.05**	66	**230**	NA	NA
03/17/10	376.36	66.62	309.74	6.40	11.7	446	0.22	5.14	**6.60**	**51.0**	15.0	430	292	**0.04**	38	**170**	NA	NA
07/29/19	377.63	65.95	311.68	6.57	15.6	184	0.45	NM	**1.73**	0.64	0.32	0.45	0.48 J	<0.003	4.1	1.0	<0.10	<0.20
10/19/20	377.63	68.02	309.61	6.55	13.4	237	2.26	2.54	0.19	0.29	<1.0	<0.50	<1.50	<0.01	<2.0	<2.0	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
-- = Not avaliable

[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-17A
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**
11/13/07	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
10/19/20	394.44	84.93	309.51	5.86	14.3	182	3.02	13.2	<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-6
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	1.89	**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	1.41	**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	2.50	**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
10/19/20	360.45	50.68	309.77	7.51	16.4	390	2.34	1.48	<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-7
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	4.18	< 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	1.79	< 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	7.38	<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	2.63	<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	2.42	<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	3.43	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	2.35	<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	1.29	<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]	90.30	310.73[f]	6.22	15.0	194	1.14	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
10/19/20	399.83	90.30	309.53	6.22	15.0	194	1.14	3.27	<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.

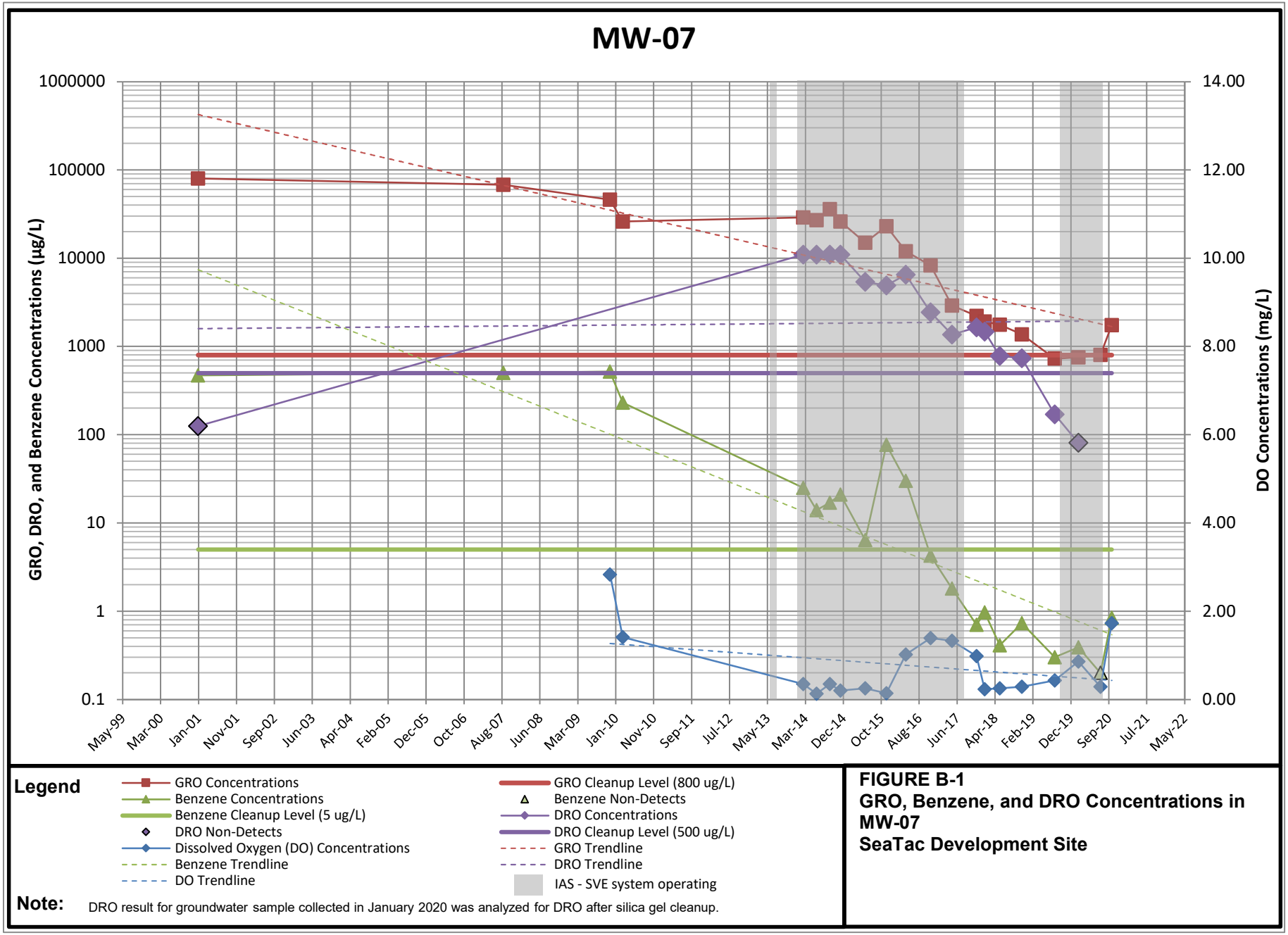
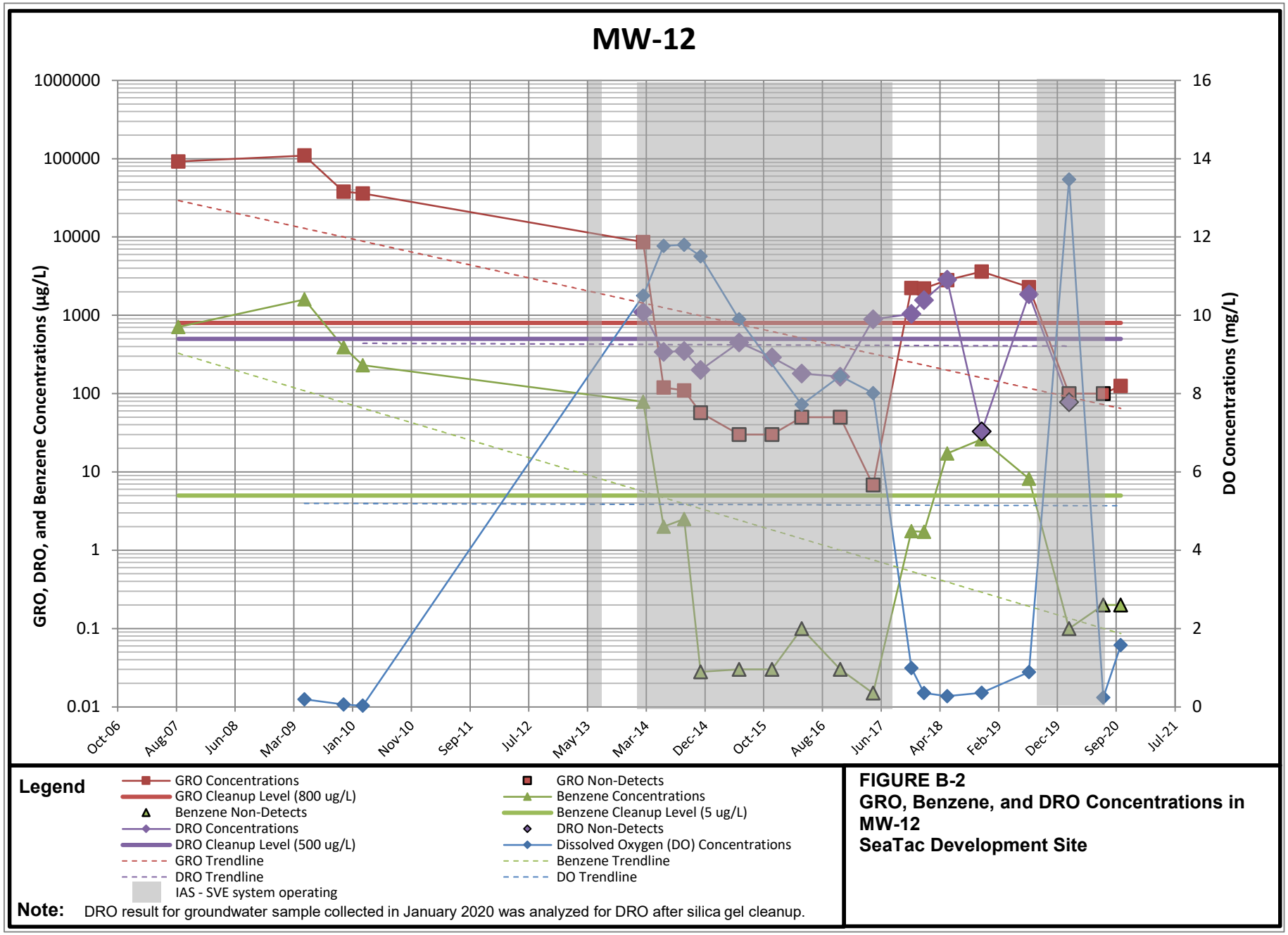


FIGURE B-1
GRO, Benzene, and DRO Concentrations in MW-07
SeaTac Development Site



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

FIGURE B-2
GRO, Benzene, and DRO Concentrations in MW-12
SeaTac Development Site

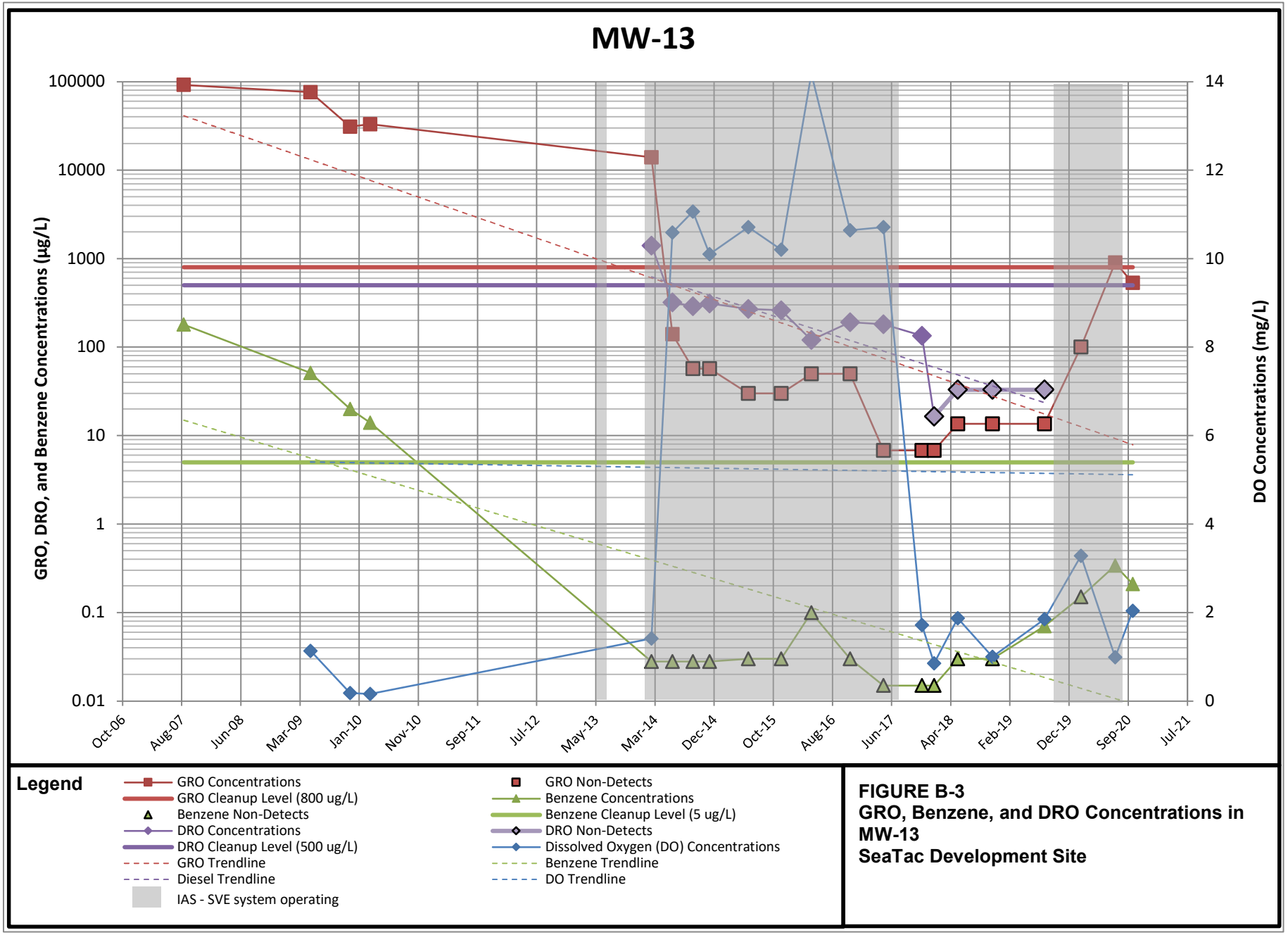


FIGURE B-3
GRO, Benzene, and DRO Concentrations in MW-13
SeaTac Development Site

N:\Bothell\1 PROJECTS\SeaTac Development Site\SLR Groundwater Sampling Reports\October 2020 Confirmational Monitoring Event\Tables and Graphs\Trend Graphs.xlsx

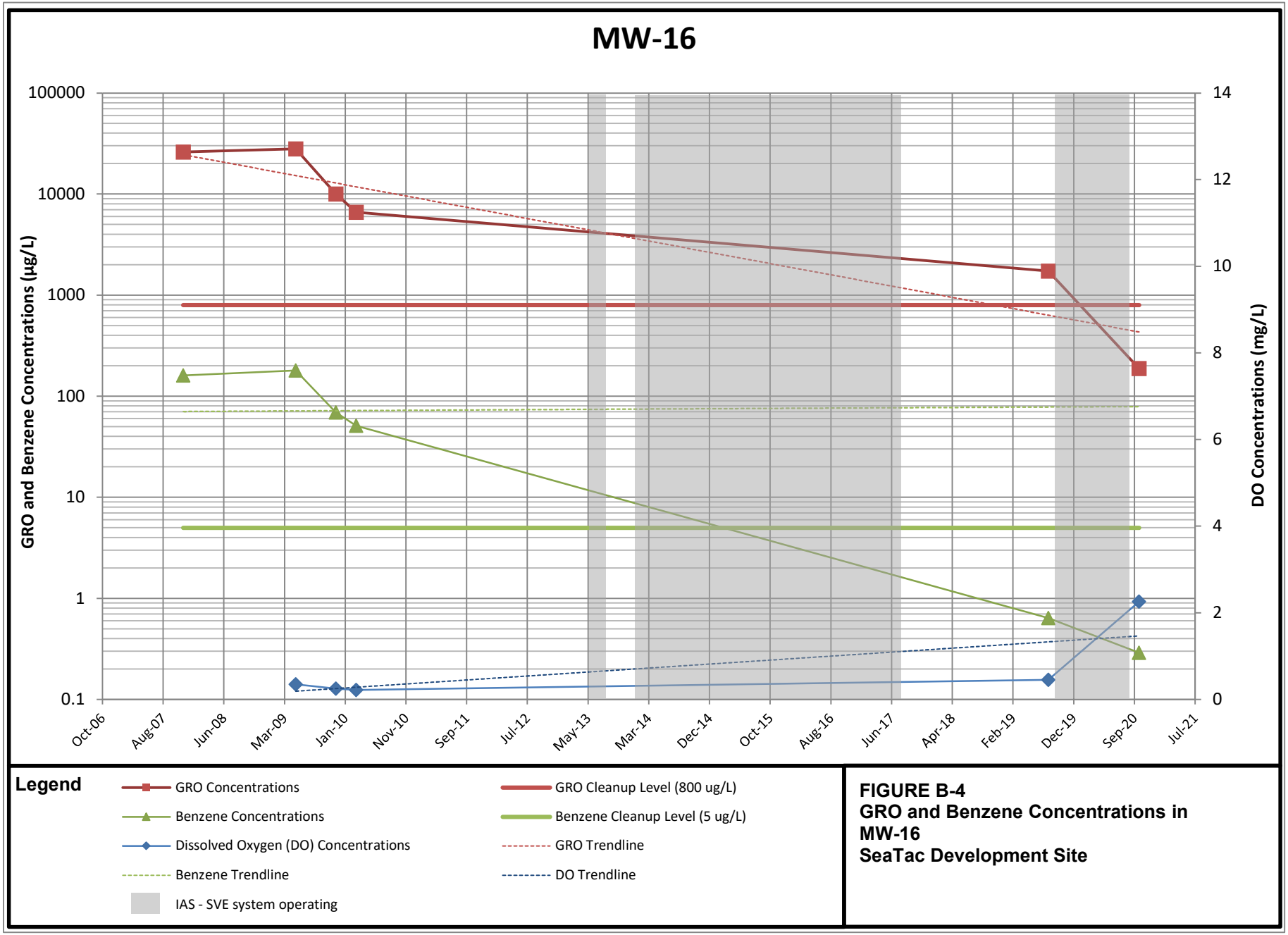


FIGURE B-4
GRO and Benzene Concentrations in MW-16
SeaTac Development Site

N:\Bothell\1 PROJECTS\SeaTac Development Site\SLR Groundwater Sampling Reports\October 2020 Confirmational Monitoring Event\Tables and Graphs\Trend Graphs.xlsx

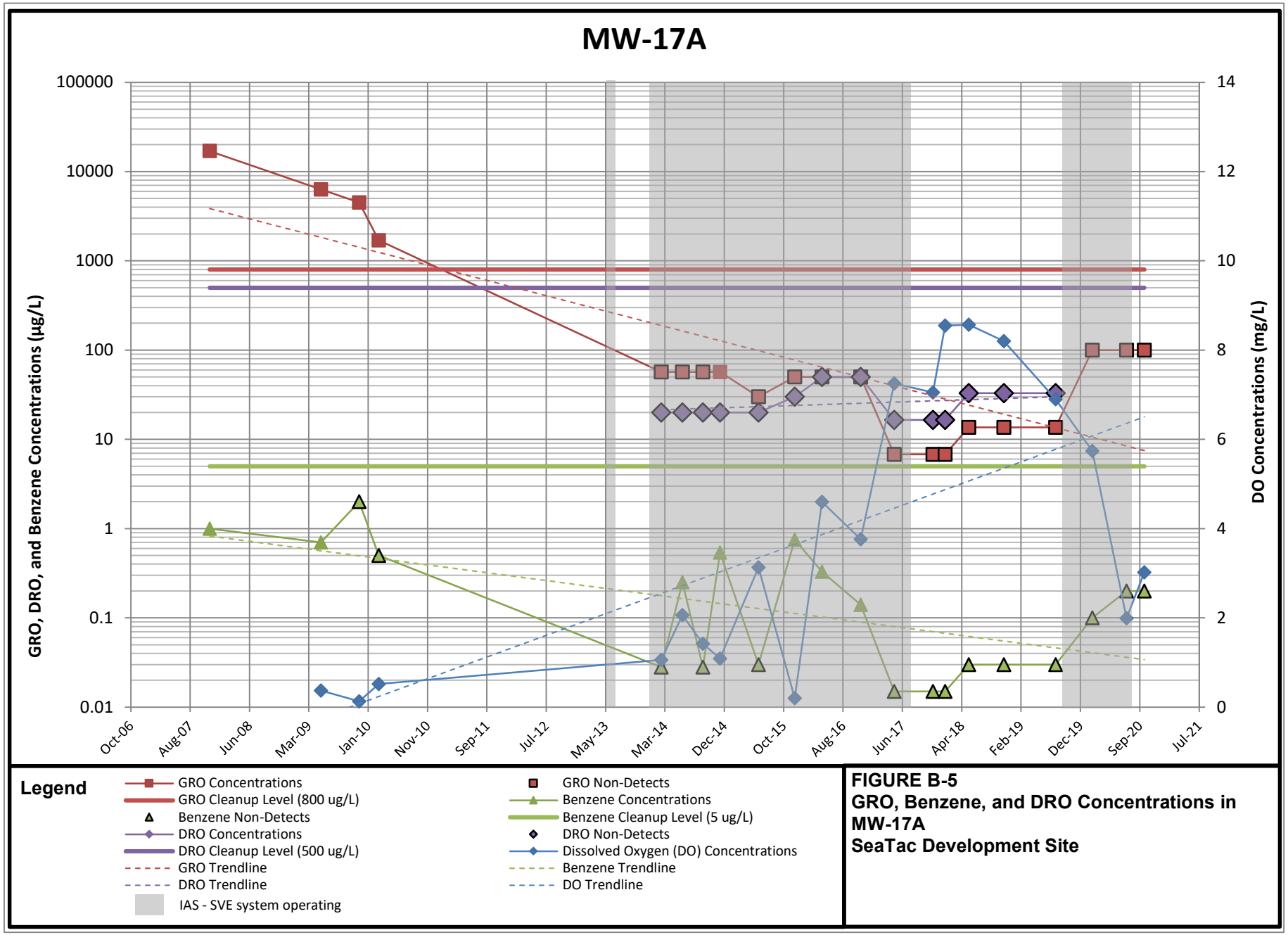


FIGURE B-5
GRO, Benzene, and DRO Concentrations in MW-17A
SeaTac Development Site

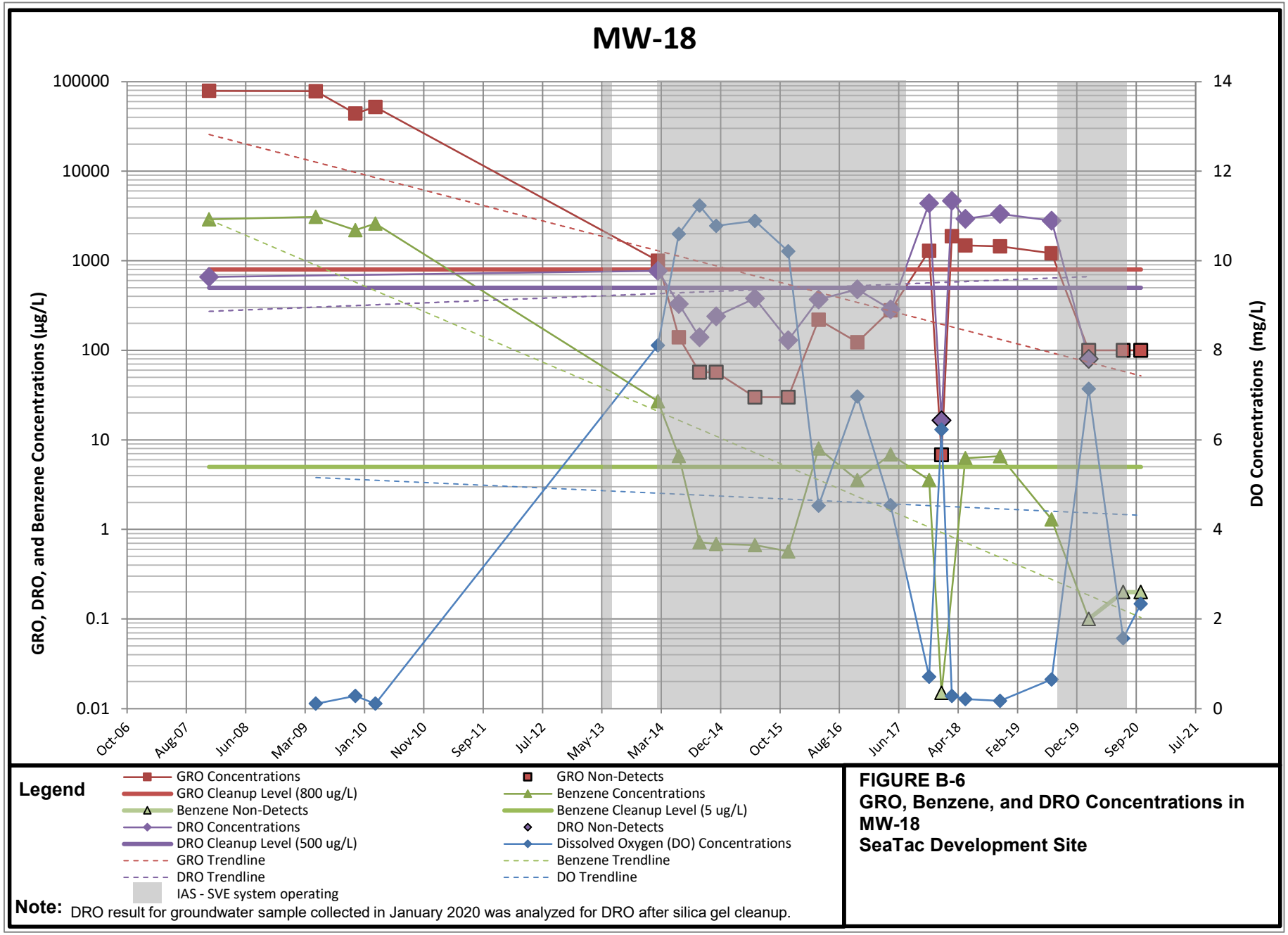


FIGURE B-6
GRO, Benzene, and DRO Concentrations in MW-18
SeaTac Development Site

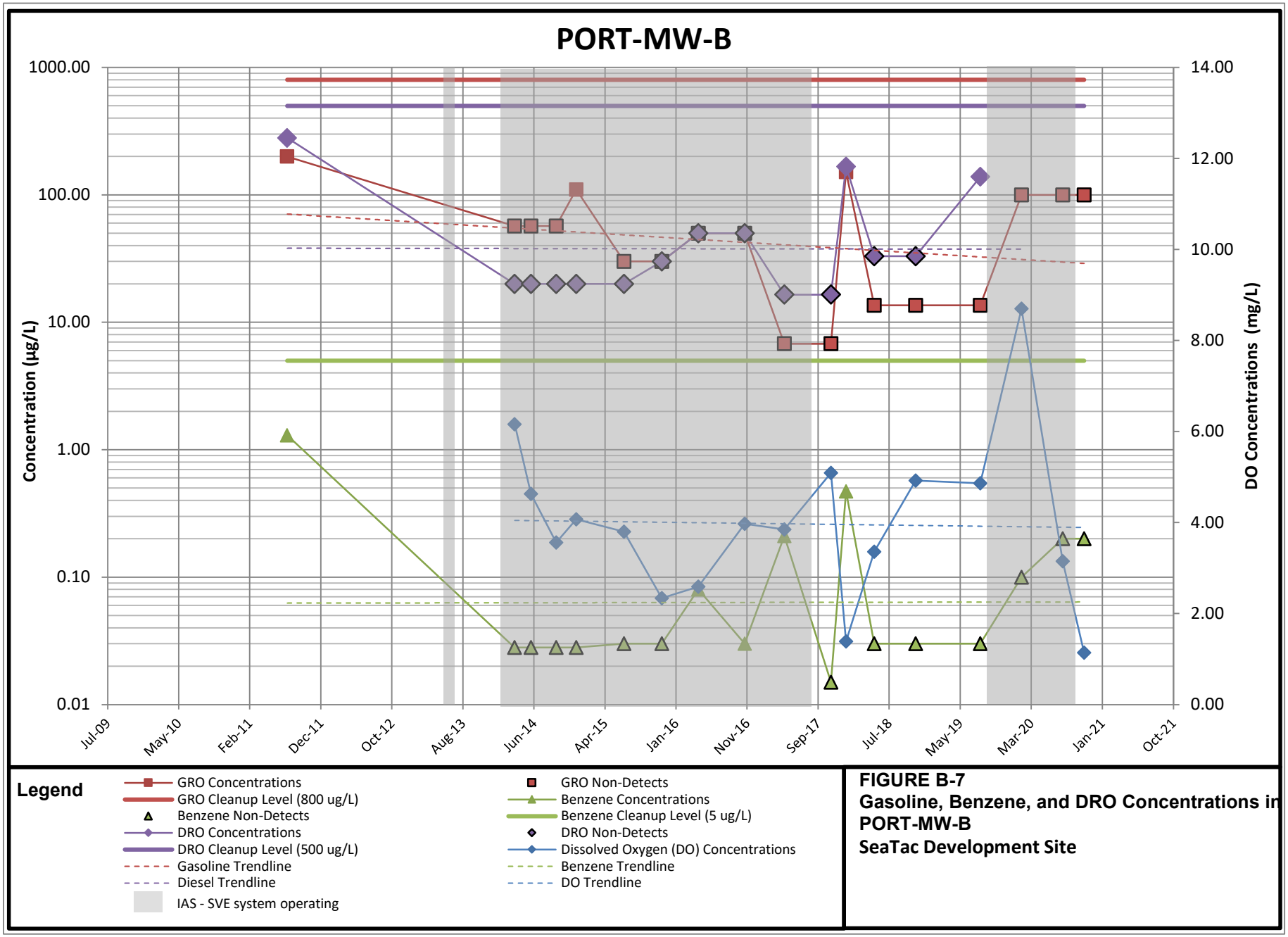


FIGURE B-7
Gasoline, Benzene, and DRO Concentrations in PORT-MW-B
SeaTac Development Site

N:\Bothell\1 PROJECTS\SeaTac Development Site\SLR Groundwater Sampling Reports\October 2020 Confirmational Monitoring Event\Tables and Graphs\Trend Graphs.xlsx

APPENDIX C

LABORATORY REPORTS

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

AMENDED REPORT

Monday, November 16, 2020

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

RE: A0J0658 - Sea-Tac Development Site - 128.02207.00002

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 A0J0658, which was received by the laboratory on 10/20/2020 at 11:09:00AM.

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 reciept, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	5.1 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

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-7-1020	A0J0658-01	Water	10/19/20 14:58	10/20/20 11:09
MW-12-1020	A0J0658-02	Water	10/19/20 11:55	10/20/20 11:09
MW-13-1020	A0J0658-03	Water	10/19/20 15:34	10/20/20 11:09
MW-16-1020	A0J0658-04	Water	10/19/20 13:32	10/20/20 11:09
MW-17A-1020	A0J0658-05	Water	10/19/20 14:23	10/20/20 11:09
MW-18-1020	A0J0658-06	Water	10/19/20 12:40	10/20/20 11:09
Port-MW-B-1020	A0J0658-07	Water	10/19/20 10:49	10/20/20 11:09
MW-37-1020	A0J0658-08	Water	10/19/20 14:58	10/20/20 11:09
Equip-Blank-1020	A0J0658-09	Water	10/19/20 14:10	10/20/20 11:09
Trip Blank	A0J0658-10	Water	10/19/20 00:00	10/20/20 11:09

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL CASE NARRATIVE

Work Order: A0J0658

Subcontract

This report is not complete without the attached subcontract laboratory report for Dissolved RSK 175 from Calscience/Eurofins.

Amended Report Revision 1:

Corrected Analyte List

This report supersedes all previous reports.

This report reflects the corrected reporting for total alkainity by SM 2320B.

Lisa Domenighini
Client Services Manager
11-16-2020

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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-7-1020 (A0J0658-01RE1)				**Matrix: Water**		**Batch: 0100788**		
Gasoline Range Organics	**1740**	---	100	ug/L	1	10/23/20 10:09	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*	*Limits: 50-150 %*		*1*	*10/23/20 10:09*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*	*1*	*10/23/20 10:09*	*NWTPH-Gx (MS)*	
MW-12-1020 (A0J0658-02)				**Matrix: Water**		**Batch: 0100788**		
Gasoline Range Organics	**125**	---	100	ug/L	1	10/23/20 10:39	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 97 %*	*Limits: 50-150 %*		*1*	*10/23/20 10:39*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*	*1*	*10/23/20 10:39*	*NWTPH-Gx (MS)*	
MW-13-1020 (A0J0658-03)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	**534**	---	100	ug/L	1	10/20/20 23:34	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 101 %*	*Limits: 50-150 %*		*1*	*10/20/20 23:34*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*103 %*	*50-150 %*	*1*	*10/20/20 23:34*	*NWTPH-Gx (MS)*	
MW-16-1020 (A0J0658-04)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	**188**	---	100	ug/L	1	10/21/20 01:49	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*	*Limits: 50-150 %*		*1*	*10/21/20 01:49*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*10/21/20 01:49*	*NWTPH-Gx (MS)*	
MW-17A-1020 (A0J0658-05)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	ND	---	100	ug/L	1	10/21/20 00:01	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*	*Limits: 50-150 %*		*1*	*10/21/20 00:01*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*10/21/20 00:01*	*NWTPH-Gx (MS)*	
MW-18-1020 (A0J0658-06)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	ND	---	100	ug/L	1	10/21/20 00:28	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 101 %*	*Limits: 50-150 %*		*1*	*10/21/20 00:28*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*10/21/20 00:28*	*NWTPH-Gx (MS)*	
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	ND	---	100	ug/L	1	10/21/20 00:55	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*	*Limits: 50-150 %*		*1*	*10/21/20 00:55*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*10/21/20 00:55*	*NWTPH-Gx (MS)*	
MW-37-1020 (A0J0658-08)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	**2070**	---	100	ug/L	1	10/21/20 02:17	NWTPH-Gx (MS)	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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-37-1020 (A0J0658-08)				**Matrix: Water**		**Batch: 0100645**		
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*104 %*	*Limits: 50-150 %*	*1*	*10/21/20 02:17*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*	*1*	*10/21/20 02:17*	*NWTPH-Gx (MS)*	
Equip-Blank-1020 (A0J0658-09)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	ND	---	100	ug/L	1	10/21/20 01:22	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*101 %*	*Limits: 50-150 %*	*1*	*10/21/20 01:22*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*10/21/20 01:22*	*NWTPH-Gx (MS)*	
Trip Blank (A0J0658-10)				**Matrix: Water**		**Batch: 0100645**		
Gasoline Range Organics	ND	---	100	ug/L	1	10/20/20 16:32	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*102 %*	*Limits: 50-150 %*	*1*	*10/20/20 16:32*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*10/20/20 16:32*	*NWTPH-Gx (MS)*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Equip-Blank-1020 (A0J0658-09)				**Matrix: Water**		**Batch: 0100645**		
Benzene	ND	---	0.200	ug/L	1	10/21/20 01:22	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/21/20 01:22	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/21/20 01:22	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	10/21/20 01:22	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:* *80-120 %*	*1*	*10/21/20 01:22*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/21/20 01:22*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/21/20 01:22*	*EPA 8260D*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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-7-1020 (A0J0658-01RE1)				**Matrix: Water**		**Batch: 0100788**		
Benzene	**0.840**	---	0.200	ug/L	1	10/23/20 10:09	EPA 8260D	
Toluene	**2.50**	---	1.00	ug/L	1	10/23/20 10:09	EPA 8260D	
Ethylbenzene	**9.69**	---	0.500	ug/L	1	10/23/20 10:09	EPA 8260D	
Xylenes, total	**14.6**	---	1.50	ug/L	1	10/23/20 10:09	EPA 8260D	
Naphthalene	**5.76**	---	4.00	ug/L	1	10/23/20 10:09	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	10/23/20 10:09	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*	*1*	*10/23/20 10:09*	*EPA 8260D*	
Toluene-d8 (Surr)		*100 %*		*80-120 %*	*1*	*10/23/20 10:09*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*	*1*	*10/23/20 10:09*	*EPA 8260D*	
MW-12-1020 (A0J0658-02)				**Matrix: Water**		**Batch: 0100788**		
Benzene	ND	---	0.200	ug/L	1	10/23/20 10:39	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/23/20 10:39	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/23/20 10:39	EPA 8260D	
Xylenes, total	**6.16**	---	1.50	ug/L	1	10/23/20 10:39	EPA 8260D	
Naphthalene	ND	---	4.00	ug/L	1	10/23/20 10:39	EPA 8260D	
n-Hexane	**2.05**	---	2.00	ug/L	1	10/23/20 10:39	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*	*1*	*10/23/20 10:39*	*EPA 8260D*	
Toluene-d8 (Surr)		*102 %*		*80-120 %*	*1*	*10/23/20 10:39*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*	*1*	*10/23/20 10:39*	*EPA 8260D*	
MW-13-1020 (A0J0658-03)				**Matrix: Water**		**Batch: 0100645**		
Benzene	**0.210**	---	0.200	ug/L	1	10/20/20 23:34	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/20/20 23:34	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/20/20 23:34	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	10/20/20 23:34	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	10/20/20 23:34	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	10/20/20 23:34	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*		*Limits: 80-120 %*	*1*	*10/20/20 23:34*	*EPA 8260D*	
Toluene-d8 (Surr)		*99 %*		*80-120 %*	*1*	*10/20/20 23:34*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)		*92 %*		*80-120 %*	*1*	*10/20/20 23:34*	*EPA 8260D*	
MW-16-1020 (A0J0658-04)				**Matrix: Water**		**Batch: 0100645**		
Benzene	**0.290**	---	0.200	ug/L	1	10/21/20 01:49	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/21/20 01:49	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/21/20 01:49	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	10/21/20 01:49	EPA 8260D	

Apex Laboratories

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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-16-1020 (A0J0658-04)				**Matrix: Water**		**Batch: 0100645**		
Naphthalene	ND	---	2.00	ug/L	1	10/21/20 01:49	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	10/21/20 01:49	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*10/21/20 01:49*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*10/21/20 01:49*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*94 %*	*80-120 %*	*1*	*10/21/20 01:49*	*EPA 8260D*	
MW-17A-1020 (A0J0658-05)				**Matrix: Water**		**Batch: 0100645**		
Benzene	ND	---	0.200	ug/L	1	10/21/20 00:01	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/21/20 00:01	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/21/20 00:01	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	10/21/20 00:01	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	10/21/20 00:01	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	10/21/20 00:01	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*10/21/20 00:01*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/21/20 00:01*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*94 %*	*80-120 %*	*1*	*10/21/20 00:01*	*EPA 8260D*	
MW-18-1020 (A0J0658-06)				**Matrix: Water**		**Batch: 0100645**		
Benzene	ND	---	0.200	ug/L	1	10/21/20 00:28	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/21/20 00:28	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/21/20 00:28	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	10/21/20 00:28	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	10/21/20 00:28	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	10/21/20 00:28	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*10/21/20 00:28*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/21/20 00:28*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*10/21/20 00:28*	*EPA 8260D*	
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**		**Batch: 0100645**		
Benzene	ND	---	0.200	ug/L	1	10/21/20 00:55	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/21/20 00:55	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/21/20 00:55	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	10/21/20 00:55	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	10/21/20 00:55	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	10/21/20 00:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*10/21/20 00:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/21/20 00:55*	*EPA 8260D*	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**		**Batch: 0100645**		
Surrogate: 4-Bromofluorobenzene (Surr)		*Recovery: 96 %*		*Limits: 80-120 %*	*1*	*10/21/20 00:55*	*EPA 8260D*	
MW-37-1020 (A0J0658-08)				**Matrix: Water**		**Batch: 0100645**		
Benzene	**0.820**	---	0.200	ug/L	1	10/21/20 02:17	EPA 8260D	
Toluene	**2.69**	---	1.00	ug/L	1	10/21/20 02:17	EPA 8260D	
Ethylbenzene	**9.96**	---	0.500	ug/L	1	10/21/20 02:17	EPA 8260D	
Xylenes, total	**13.7**	---	1.50	ug/L	1	10/21/20 02:17	EPA 8260D	
Naphthalene	**5.67**	---	2.00	ug/L	1	10/21/20 02:17	EPA 8260D	
n-Hexane	ND	---	2.00	ug/L	1	10/21/20 02:17	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*		*Limits: 80-120 %*	*1*	*10/21/20 02:17*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*10/21/20 02:17*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*91 %*	*80-120 %*	*1*	*10/21/20 02:17*	*EPA 8260D*	
Trip Blank (A0J0658-10)				**Matrix: Water**		**Batch: 0100645**		
Benzene	ND	---	0.200	ug/L	1	10/20/20 16:32	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	10/20/20 16:32	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	10/20/20 16:32	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	10/20/20 16:32	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	10/20/20 16:32	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*	*1*	*10/20/20 16:32*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/20/20 16:32*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*10/20/20 16:32*	*EPA 8260D*	

Apex Laboratories

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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-7-1020 (A0J0658-01)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0200	0.0200	ug/L	1	10/29/20 04:49	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 70-130 %*	*1*	*10/29/20 04:49*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*82 %*	*70-130 %*	*1*	*10/29/20 04:49*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*96 %*	*70-130 %*	*1*	*10/29/20 04:49*	*EPA 8260D SIM*	
MW-12-1020 (A0J0658-02)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	10/29/20 05:16	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 70-130 %*	*1*	*10/29/20 05:16*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*98 %*	*70-130 %*	*1*	*10/29/20 05:16*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*95 %*	*70-130 %*	*1*	*10/29/20 05:16*	*EPA 8260D SIM*	
MW-13-1020 (A0J0658-03)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0200	0.0200	ug/L	1	10/29/20 05:43	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 70-130 %*	*1*	*10/29/20 05:43*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*98 %*	*70-130 %*	*1*	*10/29/20 05:43*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*95 %*	*70-130 %*	*1*	*10/29/20 05:43*	*EPA 8260D SIM*	
MW-16-1020 (A0J0658-04)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	10/29/20 06:10	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 70-130 %*	*1*	*10/29/20 06:10*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*100 %*	*70-130 %*	*1*	*10/29/20 06:10*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*96 %*	*70-130 %*	*1*	*10/29/20 06:10*	*EPA 8260D SIM*	
MW-17A-1020 (A0J0658-05)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	10/29/20 06:37	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 70-130 %*	*1*	*10/29/20 06:37*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*98 %*	*70-130 %*	*1*	*10/29/20 06:37*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*97 %*	*70-130 %*	*1*	*10/29/20 06:37*	*EPA 8260D SIM*	
MW-18-1020 (A0J0658-06)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	10/29/20 07:04	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 70-130 %*	*1*	*10/29/20 07:04*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*98 %*	*70-130 %*	*1*	*10/29/20 07:04*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*97 %*	*70-130 %*	*1*	*10/29/20 07:04*	*EPA 8260D SIM*	
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**		**Batch: 0100991**		

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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-1020 (A0J0658-07)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	10/29/20 07:31	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits: 70-130 %*	*1*	*10/29/20 07:31*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*101 %*	*70-130 %*	*1*	*10/29/20 07:31*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*100 %*	*70-130 %*	*1*	*10/29/20 07:31*	*EPA 8260D SIM*	
MW-37-1020 (A0J0658-08)				**Matrix: Water**		**Batch: 0100991**		
1,2-Dibromoethane (EDB)	ND	0.0200	0.0200	ug/L	1	10/29/20 07:58	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 70-130 %*	*1*	*10/29/20 07:58*	*EPA 8260D SIM*	
Toluene-d8 (Surr)			*81 %*	*70-130 %*	*1*	*10/29/20 07:58*	*EPA 8260D SIM*	
4-Bromofluorobenzene (Surr)			*95 %*	*70-130 %*	*1*	*10/29/20 07:58*	*EPA 8260D SIM*	

Apex Laboratories

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-1020 (A0J0658-02)				**Matrix: Water**				
Batch: 0101047								
Iron	ND	---	50.0	ug/L	1	11/02/20 15:48	EPA 6020A	
Manganese	**1300**	---	1.00	ug/L	1	11/02/20 15:48	EPA 6020A	
MW-16-1020 (A0J0658-04)				**Matrix: Water**				
Batch: 0101047								
Iron	**119**	---	50.0	ug/L	1	11/02/20 15:53	EPA 6020A	
Manganese	**2250**	---	1.00	ug/L	1	11/02/20 15:53	EPA 6020A	
MW-18-1020 (A0J0658-06)				**Matrix: Water**				
Batch: 0101047								
Iron	ND	---	50.0	ug/L	1	11/02/20 15:57	EPA 6020A	
Manganese	**171**	---	1.00	ug/L	1	11/02/20 15:57	EPA 6020A	
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**				
Batch: 0101047								
Iron	ND	---	50.0	ug/L	1	11/02/20 16:01	EPA 6020A	
Manganese	**3.56**	---	1.00	ug/L	1	11/02/20 16:01	EPA 6020A	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-1020 (A0J0658-02)				**Matrix: Water**				
Batch: 0101002								
Iron	ND	---	50.0	ug/L	1	11/02/20 17:32	EPA 6020A (Diss)	
MW-16-1020 (A0J0658-04)				**Matrix: Water**				
Batch: 0101002								
Iron	**61.2**	---	50.0	ug/L	1	11/02/20 17:37	EPA 6020A (Diss)	
MW-18-1020 (A0J0658-06)				**Matrix: Water**				
Batch: 0101002								
Iron	ND	---	50.0	ug/L	1	11/02/20 17:42	EPA 6020A (Diss)	
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**				
Batch: 0101002								
Iron	ND	---	50.0	ug/L	1	11/02/20 17:46	EPA 6020A (Diss)	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-1020 (A0J0658-02)				**Matrix: Water**				
Batch: 0100671								
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	10/20/20 15:26	EPA 300.0	
Sulfate	**6.34**	---	1.00	mg/L	1	10/20/20 15:26	EPA 300.0	
MW-16-1020 (A0J0658-04)				**Matrix: Water**				
Batch: 0100671								
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	10/20/20 15:48	EPA 300.0	
Sulfate	**5.43**	---	1.00	mg/L	1	10/20/20 15:48	EPA 300.0	
MW-18-1020 (A0J0658-06)				**Matrix: Water**				
Batch: 0100671								
Nitrate-Nitrogen	**0.329**	---	0.250	mg/L	1	10/20/20 16:09	EPA 300.0	
Sulfate	**21.3**	---	1.00	mg/L	1	10/20/20 16:09	EPA 300.0	
Port-MW-B-1020 (A0J0658-07RE1)				**Matrix: Water**				
Batch: 0100671								
Nitrate-Nitrogen	**6.35**	---	0.250	mg/L	1	10/20/20 16:52	EPA 300.0	
Sulfate	**14.5**	---	1.00	mg/L	1	10/20/20 16:52	EPA 300.0	

Apex Laboratories

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-1020 (A0J0658-02)				**Matrix: Water**		**Batch: 0100920**		
Total Organic Carbon	**4.43**	---	1.00	mg/L	1	10/27/20 14:17	SM 5310 C	
MW-16-1020 (A0J0658-04)				**Matrix: Water**		**Batch: 0100920**		
Total Organic Carbon	ND	---	1.00	mg/L	1	10/27/20 15:51	SM 5310 C	
MW-18-1020 (A0J0658-06)				**Matrix: Water**		**Batch: 0100920**		
Total Organic Carbon	**2.71**	---	1.00	mg/L	1	10/27/20 16:23	SM 5310 C	
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**		**Batch: 0100920**		
Total Organic Carbon	ND	---	1.00	mg/L	1	10/27/20 16:54	SM 5310 C	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-12-1020 (A0J0658-02)				**Matrix: Water**				
Batch: 0100771								
Total Alkalinity	**65.6**	---	20.0	mg CaCO3/L	1	10/22/20 14:00	SM 2320 B	
MW-16-1020 (A0J0658-04)				**Matrix: Water**				
Batch: 0100771								
Total Alkalinity	**39.7**	---	20.0	mg CaCO3/L	1	10/22/20 14:07	SM 2320 B	
MW-18-1020 (A0J0658-06)				**Matrix: Water**				
Batch: 0100771								
Total Alkalinity	**164**	---	20.0	mg CaCO3/L	1	10/22/20 14:13	SM 2320 B	
Port-MW-B-1020 (A0J0658-07)				**Matrix: Water**				
Batch: 0100771								
Total Alkalinity	**20.4**	---	20.0	mg CaCO3/L	1	10/22/20 14:23	SM 2320 B	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: Sea-Tac Development Site	
22118 20th Ave SE	Project Number: 128.02207.00002	Report ID:
Bothell, WA 98021	Project Manager: Mike Staton	A0J0658 - 11 16 20 1710

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 0100645 - EPA 5030B												**Water**
Blank (0100645-BLK1)		Prepared: 10/20/20 14:00		Analyzed: 10/20/20 15:32								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*105 %*		*50-150 %*			*"*					
LCS (0100645-BS2)		Prepared: 10/20/20 14:00		Analyzed: 10/20/20 15:02								
NWTPH-Gx (MS)												
Gasoline Range Organics	557	---	100	ug/L	1	500	---	111	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*101 %*		*50-150 %*			*"*					
Duplicate (0100645-DUP2)		Prepared: 10/20/20 15:19		Analyzed: 10/21/20 03:11								**T-02**
QC Source Sample: MW-7-1020 (A0J0658-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	**1270**	---	1000	ug/L	10	---	1280	---	---	0.6	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*105 %*		*50-150 %*			*"*					
Batch 0100788 - EPA 5030B												**Water**
Blank (0100788-BLK1)		Prepared: 10/23/20 08:00		Analyzed: 10/23/20 09:41								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 97 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*103 %*		*50-150 %*			*"*					
LCS (0100788-BS2)		Prepared: 10/23/20 08:00		Analyzed: 10/23/20 09:13								
NWTPH-Gx (MS)												
Gasoline Range Organics	498	---	100	ug/L	1	500	---	100	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*100 %*		*50-150 %*			*"*					
Duplicate (0100788-DUP1)		Prepared: 10/23/20 09:33		Analyzed: 10/23/20 11:10								

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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 0100788 - EPA 5030B												**Water**
Duplicate (0100788-DUP1)		Prepared: 10/23/20 09:33		Analyzed: 10/23/20 11:10								
QC Source Sample: MW-12-1020 (A0J0658-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	**125**	---	100	ug/L	1	---	125	---	---	0.3	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 98 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*99 %*		*50-150 %*			*"*					

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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 0100645 - EPA 5030B												**Water**
Blank (0100645-BLK1)		Prepared: 10/20/20 14:00		Analyzed: 10/20/20 15:32								
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)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
LCS (0100645-BS1)		Prepared: 10/20/20 14:00		Analyzed: 10/20/20 14:31								
EPA 8260D												
Benzene	19.9	---	0.200	ug/L	1	20.0	---	100	80 - 120%	---	---	
Toluene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
Ethylbenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80 - 120%	---	---	
Xylenes, total	62.8	---	1.50	ug/L	1	60.0	---	105	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*90 %*		*80-120 %*			*"*				
Duplicate (0100645-DUP2)		Prepared: 10/20/20 15:19		Analyzed: 10/21/20 03:11								**T-02**
QC Source Sample: MW-7-1020 (A0J0658-01)												
EPA 8260D												
Benzene	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	**6.90**	---	5.00	ug/L	10	---	7.20	---	---	4	30%	
Xylenes, total	ND	---	15.0	ug/L	10	---	8.30	---	---	***	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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 0100645 - EPA 5030B												**Water**
Blank (0100645-BLK1)		Prepared: 10/20/20 14:00		Analyzed: 10/20/20 15:32								
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	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Hexane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
LCS (0100645-BS1)		Prepared: 10/20/20 14:00		Analyzed: 10/20/20 14:31								
EPA 8260D												
Benzene	19.9	---	0.200	ug/L	1	20.0	---	100	80 - 120%	---	---	
Toluene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
Ethylbenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80 - 120%	---	---	
Xylenes, total	62.8	---	1.50	ug/L	1	60.0	---	105	80 - 120%	---	---	
Naphthalene	19.9	---	2.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
n-Hexane	22.0	---	2.00	ug/L	1	20.0	---	110	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*90 %*		*80-120 %*			*"*				
Duplicate (0100645-DUP2)		Prepared: 10/20/20 15:19		Analyzed: 10/21/20 03:11								**T-02**
QC Source Sample: MW-7-1020 (A0J0658-01)												
EPA 8260D												
Benzene	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	**6.90**	---	5.00	ug/L	10	---	7.20	---	---	4	30%	
Xylenes, total	ND	---	15.0	ug/L	10	---	8.30	---	---	***	30%	
Naphthalene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
n-Hexane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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 0100645 - EPA 5030B												**Water**
Duplicate (0100645-DUP2)	Prepared: 10/20/20 15:19 Analyzed: 10/21/20 03:11											**T-02**
QC Source Sample: MW-7-1020 (A0J0658-01)												
Surr: 4-Bromofluorobenzene (Surr)	*Recovery: 93 %*		*Limits: 80-120 %*		*Dilution: 1x*							

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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 0100788 - EPA 5030B												**Water**
Blank (0100788-BLK1)		Prepared: 10/23/20 08:00		Analyzed: 10/23/20 09:41								
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	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	4.00	ug/L	1	---	---	---	---	---	---	
n-Hexane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	4.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*102 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*105 %*		*80-120 %*			*"*					
LCS (0100788-BS1)		Prepared: 10/23/20 08:00		Analyzed: 10/23/20 08:43								
EPA 8260D												
Benzene	19.6	---	0.200	ug/L	1	20.0	---	98	80 - 120%	---	---	
Toluene	18.4	---	1.00	ug/L	1	20.0	---	92	80 - 120%	---	---	
Ethylbenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80 - 120%	---	---	
Xylenes, total	66.5	---	1.50	ug/L	1	60.0	---	111	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	21.6	---	1.00	ug/L	1	20.0	---	108	80 - 120%	---	---	
Naphthalene	17.3	---	4.00	ug/L	1	20.0	---	86	80 - 120%	---	---	
n-Hexane	22.0	---	2.00	ug/L	1	20.0	---	110	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	19.2	---	0.500	ug/L	1	20.0	---	96	80 - 120%	---	---	
1,2-Dichloroethane (EDC)	19.8	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Isopropylbenzene	20.4	---	4.00	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,2,4-Trimethylbenzene	19.9	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
1,3,5-Trimethylbenzene	21.3	---	1.00	ug/L	1	20.0	---	107	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*100 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*			*"*					

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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 0100788 - EPA 5030B							**Water**					
Duplicate (0100788-DUP1)		Prepared: 10/23/20 09:33 Analyzed: 10/23/20 11:10										
QC Source Sample: MW-12-1020 (A0J0658-02)												
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	0.150	---	---	***	30%	
Toluene	ND	---	1.00	ug/L	1	---	0.550	---	---	***	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	**6.33**	---	1.50	ug/L	1	---	6.16	---	---	3	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	**4.02**	---	4.00	ug/L	1	---	3.95	---	---	2	30%	
n-Hexane	**2.39**	---	2.00	ug/L	1	---	2.05	---	---	15	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	4.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	**5.04**	---	1.00	ug/L	1	---	4.86	---	---	4	30%	
1,3,5-Trimethylbenzene	**2.15**	---	1.00	ug/L	1	---	2.15	---	---	0	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*102 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*102 %*		*80-120 %*			*"*					

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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 0100991 - EPA 5030B												**Water**
Blank (0100991-BLK1)		Prepared: 10/28/20 16:20 Analyzed: 10/29/20 00:18										
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
LCS (0100991-BS1)		Prepared: 10/28/20 16:20 Analyzed: 10/28/20 23:24										
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	0.196	0.0100	0.0200	ug/L	1	0.200	---	98	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Matrix Spike (0100991-MS1)		Prepared: 10/28/20 16:20 Analyzed: 10/29/20 08:25										
QC Source Sample: MW-37-1020 (A0J0658-08)												
EPA 8260D SIM												
1,2-Dibromoethane (EDB)	0.259	0.0100	0.0200	ug/L	1	0.200	ND	120	77 - 121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 113 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*80 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0101047 - EPA 3015A							**Water**					
Blank (0101047-BLK1)		Prepared: 10/30/20 08:54		Analyzed: 11/02/20 15:40								
EPA 6020A												
Iron	ND	---	50.0	ug/L	1	---	---	---	---	---	---	
Manganese	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
LCS (0101047-BS1)		Prepared: 10/30/20 08:54		Analyzed: 11/02/20 15:44								
EPA 6020A												
Iron	2820	---	50.0	ug/L	1	2780	---	101	80 - 120%	---	---	
Manganese	55.8	---	1.00	ug/L	1	55.6	---	101	80 - 120%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0101002 - Matrix Matched Direct Inject												**Water**
Blank (0101002-BLK1)		Prepared: 10/29/20 08:41		Analyzed: 11/02/20 16:37								
EPA 6020A (Diss)												
Iron	ND	---	50.0	ug/L	1	---	---	---	---	---	---	
LCS (0101002-BS1)		Prepared: 10/29/20 08:41		Analyzed: 11/02/20 16:42								
EPA 6020A (Diss)												
Iron	3000	---	50.0	ug/L	1	2780	---	108	80 - 120%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Anions by Ion Chromatography

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100671 - Method Prep: Aq							**Water**					
Blank (0100671-BLK1)		Prepared: 10/20/20 13:20		Analyzed: 10/20/20 14:43								
EPA 300.0												
Nitrate-Nitrogen	ND	---	0.250	mg/L	1	---	---	---	---	---	---	
Sulfate	ND	---	1.00	mg/L	1	---	---	---	---	---	---	
LCS (0100671-BS1)		Prepared: 10/20/20 13:20		Analyzed: 10/20/20 15:04								
EPA 300.0												
Nitrate-Nitrogen	2.05	---	0.250	mg/L	1	2.00	---	102	90 - 110%	---	---	
Sulfate	8.31	---	1.00	mg/L	1	8.00	---	104	90 - 110%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100920 - Method Prep: Aq							**Water**					
Blank (0100920-BLK1)		Prepared: 10/27/20 09:20		Analyzed: 10/27/20 13:13								
SM 5310 C												
Total Organic Carbon	ND	---	1.00	mg/L	1	---	---	---	---	---	---	
LCS (0100920-BS1)		Prepared: 10/27/20 09:20		Analyzed: 10/27/20 13:44								
SM 5310 C												
Total Organic Carbon	10.8	---	1.00	mg/L	1	10.0	---	108	90 - 114%	---	---	
Duplicate (0100920-DUP1)		Prepared: 10/27/20 09:20		Analyzed: 10/27/20 14:49								
QC Source Sample: MW-12-1020 (A0J0658-02)												
SM 5310 C												
Total Organic Carbon	**4.54**	---	1.00	mg/L	1	---	4.43	---	---	2	10%	
Matrix Spike (0100920-MS1)		Prepared: 10/27/20 09:20		Analyzed: 10/27/20 15:20								
QC Source Sample: MW-12-1020 (A0J0658-02)												
SM 5310 C												
Total Organic Carbon	14.9	---	1.01	mg/L	1	10.0	4.43	105	90 - 114%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100771 - Method Prep: Aq							Water					
Blank (0100771-BLK1)		Prepared: 10/22/20 11:57 Analyzed: 10/22/20 13:46										
SM 2320 B												
Total Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Bicarbonate Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Carbonate Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
Hydroxide Alkalinity	ND	---	20.0	mg CaCO3/L	1	---	---	---	---	---	---	
LCS (0100771-BS1)		Prepared: 10/22/20 11:57 Analyzed: 10/22/20 13:51										
SM 2320 B												
Total Alkalinity	106	---	20.0	mg CaCO3/L	1	100	---	106	90 - 110%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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: 0100645							
A0J0658-03	Water	NWTPH-Gx (MS)	10/19/20 15:34	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-04	Water	NWTPH-Gx (MS)	10/19/20 13:32	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-05	Water	NWTPH-Gx (MS)	10/19/20 14:23	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-06	Water	NWTPH-Gx (MS)	10/19/20 12:40	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-07	Water	NWTPH-Gx (MS)	10/19/20 10:49	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-08	Water	NWTPH-Gx (MS)	10/19/20 14:58	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-09	Water	NWTPH-Gx (MS)	10/19/20 14:10	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-10	Water	NWTPH-Gx (MS)	10/19/20 00:00	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
Batch: 0100788							
A0J0658-01RE1	Water	NWTPH-Gx (MS)	10/19/20 14:58	10/23/20 09:33	5mL/5mL	5mL/5mL	1.00
A0J0658-02	Water	NWTPH-Gx (MS)	10/19/20 11:55	10/23/20 09:33	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: 0100645							
A0J0658-09	Water	EPA 8260D	10/19/20 14:10	10/20/20 15:19	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: 0100645							
A0J0658-03	Water	EPA 8260D	10/19/20 15:34	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-04	Water	EPA 8260D	10/19/20 13:32	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-05	Water	EPA 8260D	10/19/20 14:23	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-06	Water	EPA 8260D	10/19/20 12:40	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-07	Water	EPA 8260D	10/19/20 10:49	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-08	Water	EPA 8260D	10/19/20 14:58	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
A0J0658-10	Water	EPA 8260D	10/19/20 00:00	10/20/20 15:19	5mL/5mL	5mL/5mL	1.00
Batch: 0100788							
A0J0658-01RE1	Water	EPA 8260D	10/19/20 14:58	10/23/20 09:33	5mL/5mL	5mL/5mL	1.00
A0J0658-02	Water	EPA 8260D	10/19/20 11:55	10/23/20 09:33	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

SAMPLE PREPARATION INFORMATION

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: 0100991							
A0J0658-01	Water	EPA 8260D SIM	10/19/20 14:58	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00
A0J0658-02	Water	EPA 8260D SIM	10/19/20 11:55	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00
A0J0658-03	Water	EPA 8260D SIM	10/19/20 15:34	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00
A0J0658-04	Water	EPA 8260D SIM	10/19/20 13:32	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00
A0J0658-05	Water	EPA 8260D SIM	10/19/20 14:23	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00
A0J0658-06	Water	EPA 8260D SIM	10/19/20 12:40	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00
A0J0658-07	Water	EPA 8260D SIM	10/19/20 10:49	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00
A0J0658-08	Water	EPA 8260D SIM	10/19/20 14:58	10/28/20 16:20	5mL/5mL	5mL/5mL	1.00

Total Metals by EPA 6020A (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0101047							
A0J0658-02	Water	EPA 6020A	10/19/20 11:55	10/30/20 08:54	45mL/50mL	45mL/50mL	1.00
A0J0658-04	Water	EPA 6020A	10/19/20 13:32	10/30/20 08:54	45mL/50mL	45mL/50mL	1.00
A0J0658-06	Water	EPA 6020A	10/19/20 12:40	10/30/20 08:54	45mL/50mL	45mL/50mL	1.00
A0J0658-07	Water	EPA 6020A	10/19/20 10:49	10/30/20 08:54	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020A (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0101002							
A0J0658-02	Water	EPA 6020A (Diss)	10/19/20 11:55	10/29/20 08:41	45mL/50mL	45mL/50mL	1.00
A0J0658-04	Water	EPA 6020A (Diss)	10/19/20 13:32	10/29/20 08:41	45mL/50mL	45mL/50mL	1.00
A0J0658-06	Water	EPA 6020A (Diss)	10/19/20 12:40	10/29/20 08:41	45mL/50mL	45mL/50mL	1.00
A0J0658-07	Water	EPA 6020A (Diss)	10/19/20 10:49	10/29/20 08:41	45mL/50mL	45mL/50mL	1.00

Anions by Ion Chromatography

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0100671							
A0J0658-02	Water	EPA 300.0	10/19/20 11:55	10/20/20 13:20	5mL/5mL	5mL/5mL	1.00
A0J0658-04	Water	EPA 300.0	10/19/20 13:32	10/20/20 13:20	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

SAMPLE PREPARATION INFORMATION

Anions by Ion Chromatography

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A0J0658-06	Water	EPA 300.0	10/19/20 12:40	10/20/20 13:20	5mL/5mL	5mL/5mL	1.00
A0J0658-07RE1	Water	EPA 300.0	10/19/20 10:49	10/20/20 13:20	5mL/5mL	5mL/5mL	1.00

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0100920							
A0J0658-02	Water	SM 5310 C	10/19/20 11:55	10/27/20 09:20	40mL/40mL	40mL/40mL	1.00
A0J0658-04	Water	SM 5310 C	10/19/20 13:32	10/27/20 09:20	40mL/40mL	40mL/40mL	1.00
A0J0658-06	Water	SM 5310 C	10/19/20 12:40	10/27/20 09:20	40mL/40mL	40mL/40mL	1.00
A0J0658-07	Water	SM 5310 C	10/19/20 10:49	10/27/20 09:20	40mL/40mL	40mL/40mL	1.00

Conventional Chemistry Parameters

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0100771							
A0J0658-02	Water	SM 2320 B	10/19/20 11:55	10/22/20 11:57	60mL/60mL	60mL/60mL	NA
A0J0658-04	Water	SM 2320 B	10/19/20 13:32	10/22/20 11:57	60mL/60mL	60mL/60mL	NA
A0J0658-06	Water	SM 2320 B	10/19/20 12:40	10/22/20 11:57	60mL/60mL	60mL/60mL	NA
A0J0658-07	Water	SM 2320 B	10/19/20 10:49	10/22/20 11:57	60mL/60mL	60mL/60mL	NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

QUALIFIER DEFINITIONS

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

Apex Laboratories

T-02 This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

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

All reported analytes are included in Apex Laboratories' current ORELAP scope.

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

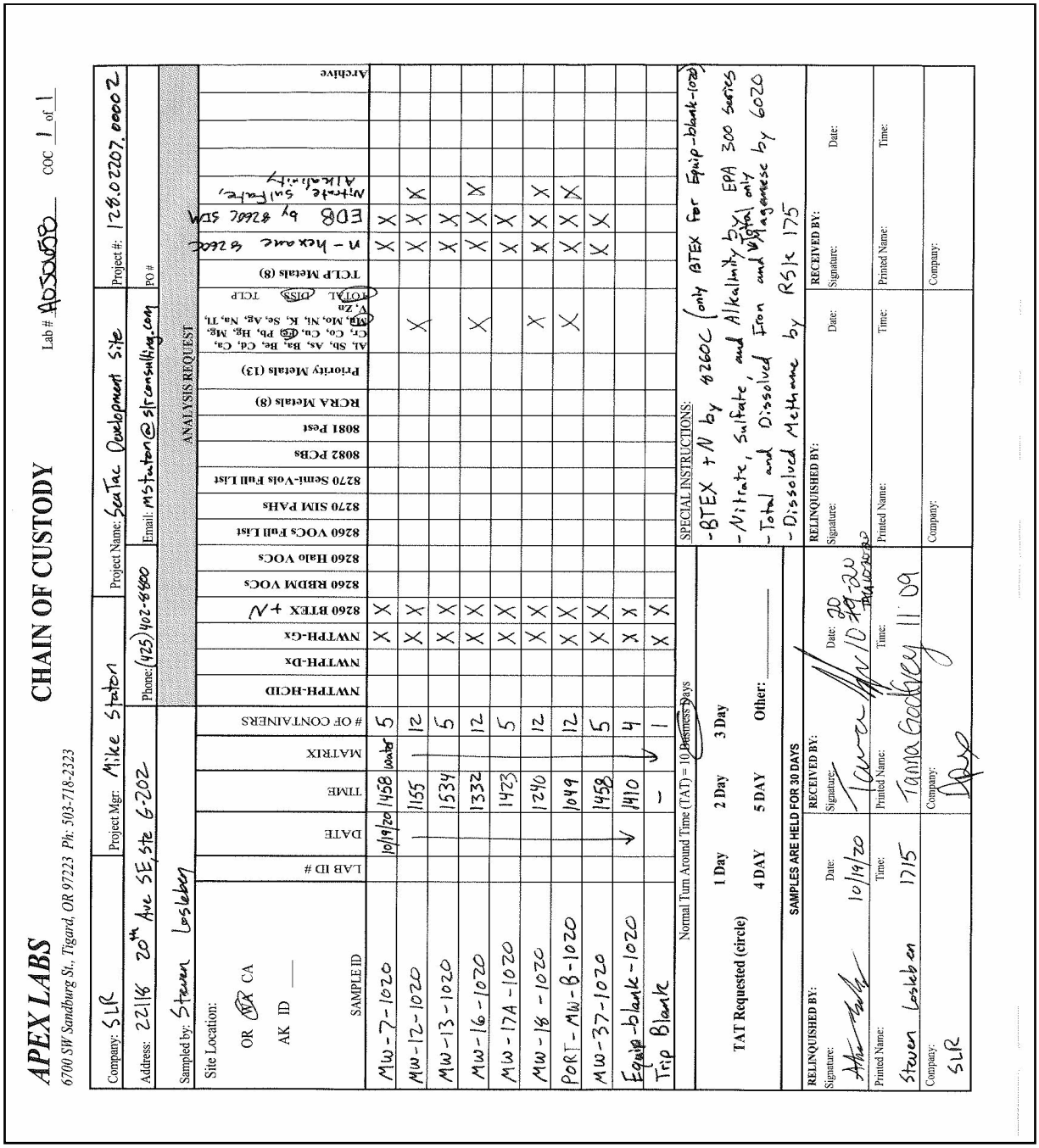
Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**



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

CHAIN OF CUSTODY

Lab # A0J0658 COC 1 of 1

Company: SLR | Project Mgr: Mike Staton | Project Name: SeaTac Development Site | Project #: 128.02207.00002
Address: 22118 20th Ave SE, Ste 200 | Phone: (425) 402-8800 | Email: mstaton@slrconsulting.com | PO #
Sampled by: Steven Losleben

Site Location: OR (WA) CA AK ID ____

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX + N	8260 RBDM VOCs	8260 Halo VOCs	8260 Full List VOCs	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn (TOTAL / DISS / TCLP)	TCLP Metals (8)	n - Hexane 8260C	EDB by 8260C SIM	Nitrate, Sulfate, Alkalinity	Archive
MW-7-1020		10/9/20	1458	water	5			X	X											X	X	X	
MW-12-1020			1155		12			X	X									X		X	X	X	
MW-13-1020			1534		5			X	X											X	X		
MW-16-1020			1332		12			X	X									X		X	X	X	
MW-17A-1020			1423		5			X	X											X	X		
MW-18-1020			1240		12			X	X									X		X	X	X	
PORT-MW-B-1020			1049		12			X	X									X		X	X	X	
MW-37-1020			1458		5			X	X											X	X		
Equip-blank-1020		↓	1410	↓	4			X	X														
Trip Blank			-		1			X	X														

Normal Turn Around Time (TAT) = 10 Business Days

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

SPECIAL INSTRUCTIONS:
-BTEX + N by 8260C (only BTEX for Equip-blank-1020)
-Nitrate, Sulfate and Alkalinity by EPA 300 series
-Total and Dissolved Iron and Manganese by 6020
-Dissolved Methane by RSK 175

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:	10/19/20		Signature:	10-20-20	
Printed Name:		1715	Printed Name:		11:09
Company: SLR			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

AMENDED REPORT

SLR Corporation-Bothell	Project: **Sea-Tac Development Site**	
22118 20th Ave SE	Project Number: **128.02207.00002**	**Report ID:**
Bothell, WA 98021	Project Manager: **Mike Staton**	**A0J0658 - 11 16 20 1710**

APEX LABS COOLER RECEIPT FORM

Client: SLR Element WO#: A0J0658

Project/Project #: Seatac development site / 128.02207.00002

Delivery Info:

Date/time received: 10-20-20 @ 11:09 By: TAM

Delivered by: Apex___ Client___ ESS___ FedEx X UPS___ Swift___ Senvoy___ SDS___ Other___

Cooler Inspection Date/time inspected: 10-20-20 @ 11:09 By: TAM

Chain of Custody included? Yes Y No ___ Custody seals? Yes___ No N/A

Signed/dated by client? Yes Y No ___

Signed/dated by Apex? Yes Y No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	5.1						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N TAM 10-20-20						
Ice type: (Gel/Real/Other)	~~Gel~~ Real						
Condition:	good						

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: 10-20-20 @ 11:41 By: TAM

All samples intact? Yes Y No ___ Comments:

Bottle labels/COCs agree? Yes ___ No X Comments: COC states 1 Trip Blank Received 2, TB# 2A48, T on MW-37-1020 reads 15:10

COC/container discrepancies form initiated? Yes Y No ___

Containers/volumes received appropriate for analysis? Yes Y No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments

Water samples: pH checked: Yes Y No___ NA___ pH appropriate? Yes Y No___ NA___

Comments:

Additional information: Tracking # 3980 0590 7822

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

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-41641-1
Client Project/Site: A0J0658

For:
Apex Laboratories LLC
6700 SW Sandburg St.
Tigard, Oregon 97223

Attn: Ms. Lisa Domenighini

Authorized for release by:
10/27/2020 8:59:47 AM

Lori Thompson, Project Manager I
(714)895-5494
Lori.Thompson@eurofinset.com

Table of Contents

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-41641-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-41641-1

Comments
No additional comments.

Receipt
The samples were received on 10/21/2020 9:45 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0º C.

Air Toxics
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Apex Laboratories LLC
Project/Site: A0J0658

Job ID: 570-41641-1

Client Sample ID: MW-12-1020 — Lab Sample ID: 570-41641-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Methane	0.14	J	1.0	0.078	ug/L	1		RSK-175	Total/NA

Client Sample ID: MW-16-1020 — Lab Sample ID: 570-41641-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Methane	0.23	J	1.0	0.078	ug/L	1		RSK-175	Total/NA

Client Sample ID: MW-18-1020 — Lab Sample ID: 570-41641-3

No Detections.

Client Sample ID: Port-MW-B-1020 — Lab Sample ID: 570-41641-4

No Detections.

This Detection Summary does not include radiochemical test results.

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: MW-12-1020
Date Collected: 10/19/20 11:55
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	**0.14**	**J**	1.0	0.078	ug/L			10/21/20 18:19	1

Client Sample ID: MW-16-1020
Date Collected: 10/19/20 13:32
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	**0.23**	**J**	1.0	0.078	ug/L			10/21/20 18:47	1

Client Sample ID: MW-18-1020
Date Collected: 10/19/20 12:40
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	ND		1.0	0.078	ug/L			10/21/20 19:13	1

Client Sample ID: Port-MW-B-1020
Date Collected: 10/19/20 10:49
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	ND		1.0	0.078	ug/L			10/21/20 19:39	1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 570-103334/4
Matrix: Water
Analysis Batch: 103334

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Methane	ND		1.0	0.078	ug/L			10/21/20 11:41	1

Lab Sample ID: LCS 570-103334/2
Matrix: Water
Analysis Batch: 103334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dissolved Methane			13.8	12.33		ug/L		89	80 - 120		

Lab Sample ID: LCSD 570-103334/3
Matrix: Water
Analysis Batch: 103334

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Methane			13.8	11.16		ug/L		81	80 - 120	10	20

Lab Sample ID: 550-151259-A-4 DU
Matrix: Water
Analysis Batch: 103334

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Dissolved Methane	100			100.5		ug/L				0.3	20

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A0J0658

Job ID: 570-41641-1

GC VOA

Analysis Batch: 103334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-41641-1	MW-12-1020	Total/NA	Water	RSK-175	
570-41641-2	MW-16-1020	Total/NA	Water	RSK-175	
570-41641-3	MW-18-1020	Total/NA	Water	RSK-175	
570-41641-4	Port-MW-B-1020	Total/NA	Water	RSK-175	
MB 570-103334/4	Method Blank	Total/NA	Water	RSK-175	
LCS 570-103334/2	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 570-103334/3	Lab Control Sample Dup	Total/NA	Water	RSK-175	
550-151259-A-4 DU	Duplicate	Total/NA	Water	RSK-175	

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A0J0658

Job ID: 570-41641-1

Client Sample ID: MW-12-1020
Date Collected: 10/19/20 11:55
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	103334	10/21/20 18:19	WMI4	ECL 2
	Instrument ID: GC52									

Client Sample ID: MW-16-1020
Date Collected: 10/19/20 13:32
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	103334	10/21/20 18:47	WMI4	ECL 2
	Instrument ID: GC52									

Client Sample ID: MW-18-1020
Date Collected: 10/19/20 12:40
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	103334	10/21/20 19:13	WMI4	ECL 2
	Instrument ID: GC52									

Client Sample ID: Port-MW-B-1020
Date Collected: 10/19/20 10:49
Date Received: 10/21/20 09:45

Lab Sample ID: 570-41641-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	2 mL	2 mL	103334	10/21/20 19:39	WMI4	ECL 2
	Instrument ID: GC52									

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Apex Laboratories LLC
Project/Site: A0J0658

Job ID: 570-41641-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

Method Summary

Client: Apex Laboratories LLC
Project/Site: A0J0658

Job ID: 570-41641-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	ECL 2

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Apex Laboratories LLC
Project/Site: A0J0658

Job ID: 570-41641-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-41641-1	MW-12-1020	Water	10/19/20 11:55	10/21/20 09:45	
570-41641-2	MW-16-1020	Water	10/19/20 13:32	10/21/20 09:45	
570-41641-3	MW-18-1020	Water	10/19/20 12:40	10/21/20 09:45	
570-41641-4	Port-MW-B-1020	Water	10/19/20 10:49	10/21/20 09:45	

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 A0J0658

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

3.8/3.0

41641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 A0J0658

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

3.8/3.0

41641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 **A0J0658**

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
		10/21/2020	0945

SCR 3.8/3.0

411641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
[illegible]	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)		[illegible]	10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 **A0J0658**

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
		10/21/2020	0945

3.8/3.0

411641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 **A0J0658**

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
		10/21/2020	0945

3.8/3.0

411041

SUBCONTRACT ORDER

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 **A0J0658**

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

SCA 3.8/3.0

411641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 A0J0658

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

3.8/3.0

41641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 **A0J0658**

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
		10/21/2020	0945

SCR 3.8/3.0

411641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 A0J0658

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied: (F)40 mL VOA - HCL (G)40 mL VOA - HCL (H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

3.8/3.0

41641

SUBCONTRACT ORDER 8

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41641

SUBCONTRACT ORDER

Apex Laboratories

10/20/20 **A0J0658**

570-41641 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501

Sample Name: MW-12-1020 **Water** **Sampled: 10/19/20 11:55** (A0J0658-02)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 11:55	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

Sample Name: MW-16-1020 **Water** **Sampled: 10/19/20 13:32** (A0J0658-04)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 13:32	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

Sample Name: MW-18-1020 **Water** **Sampled: 10/19/20 12:40** (A0J0658-06)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 12:40	Only report Methane--Client field filtered and would like Dissolved Methane reported
Containers Supplied:			
(F)40 mL VOA - HCL			
(G)40 mL VOA - HCL			
(H)40 mL VOA - HCL			

STANDARD TAT

Tracking#: 7718 5351 0653

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
		10/21/2020	0945

SCR 3.8/3.0

411641

SUBCONTRACT ORDER

Apex Laboratories

AB 10/20/20 **A0J0658**

T on conts read 1510

Sample Name: Port-MW-B-1020 **Water** **Sampled: 10/19/20 10:49** (A0J0658-07)

Analysis	Due	Expires	Comments
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	11/02/20 17:00	11/02/20 10:49	Only report Methane--Client field filtered and would like Dissolved Methane reported

Containers Supplied:
(F)40 mL VOA - HCL
(G)40 mL VOA - HCL
(H)40 mL VOA - HCL

STANDARD TAT

Released By	Date	Received By	Date
	10/20/20	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			10/21/2020 0945

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

568J2/27E/B766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

WZ APVA

92841
CA-US SNA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

568J2/27E/B766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

WZ APVA

92841
CA-US SNA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

568J2/27E8766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

92841
CA-US SNA

WZ APVA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

56BJ2/427E/B766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

92841
CA-US SNA

WZ APVA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

568J2/27E8766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

92841
CA-US SNA

WZ APVA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

56BJ2/427E/B766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

92841
CA-US SNA

WZ APVA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

568J2/27E/B766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

WZ APVA

92841
CA-US SNA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

56BJ2/427E/B766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

92841
CA-US SNA

WZ APVA

570-41641 Waybill

Firefox

41041

https://www.fedex.com/shipping/html/en/PrintIFrame.html

ORIGIN ID:BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 20OCT20
ACTWGT: 17.00 LB
CAD: 4716258/INET4280

BILL SENDER

TO DANIELLE GONSMAN
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

568J2/27E/B766

FedEx Express

WED - 21 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7718 5351 0653

WZ APVA

92841
CA-US SNA

570-41641 Waybill

Firefox

Login Sample Receipt Checklist

Client: Apex Laboratories LLC

Job Number: 570-41641-1

Login Number: 41641
List Number: 1
Creator: Ramos, Maribel

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	