



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

December 9, 2019

Brian Doan
SCS Engineers
2405 140th Avenue NE, Suite 107
Bellevue, WA 98005

Re: Analytical Data for Project 04218014.00
Laboratory Reference No. 1911-269

Dear Brian:

Enclosed are the analytical results and associated quality control data for samples submitted on November 26, 2019.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB" followed by a stylized flourish.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: December 9, 2019
Samples Submitted: November 26, 2019
Laboratory Reference: 1911-269
Project: 04218014.00

Case Narrative

Samples were collected on November 26, 2019 and received by the laboratory on November 26, 2019. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: December 9, 2019
 Samples Submitted: November 26, 2019
 Laboratory Reference: 1911-269
 Project: 04218014.00

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1					
Laboratory ID:	11-269-01					
Mineral Spirits	ND	100	NWTPH-Gx	12-3-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	86	59-122				
Client ID:	MW-2					
Laboratory ID:	11-269-02					
Mineral Spirits	ND	100	NWTPH-Gx	12-3-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	81	59-122				
Client ID:	MW-3					
Laboratory ID:	11-269-03					
Mineral Spirits	ND	100	NWTPH-Gx	12-3-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	81	59-122				
Client ID:	DUP-1					
Laboratory ID:	11-269-04					
Mineral Spirits	ND	100	NWTPH-Gx	12-3-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	83	59-122				



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**GASOLINE RANGE ORGANICS
 NWTPH-Gx
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1203W1					
Mineral Spirits	ND	100	NWTPH-Gx	12-3-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>86</i>	<i>59-122</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-269-01							
	ORIG	DUP						
Mineral Spirits	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				<i>86</i>	<i>76</i>	<i>59-122</i>		



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1					
Laboratory ID:	11-269-01					
Diesel Range Organics	0.20	0.16	NWTPH-Dx	12-2-19	12-3-19	
Lube Oil Range Organics	0.29	0.21	NWTPH-Dx	12-2-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	126	50-150				

Client ID:	MW-2					
Laboratory ID:	11-269-02					
Diesel Range Organics	ND	0.21	NWTPH-Dx	12-2-19	12-3-19	
Lube Oil Range Organics	0.28	0.21	NWTPH-Dx	12-2-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	124	50-150				

Client ID:	MW-3					
Laboratory ID:	11-269-03					
Diesel Range Organics	0.48	0.16	NWTPH-Dx	12-2-19	12-3-19	
Lube Oil Range Organics	0.64	0.21	NWTPH-Dx	12-2-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	125	50-150				

Client ID:	DUP-1					
Laboratory ID:	11-269-04					
Diesel Range Organics	0.18	0.16	NWTPH-Dx	12-2-19	12-3-19	
Lube Oil Range Organics	0.29	0.21	NWTPH-Dx	12-2-19	12-3-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	131	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1202W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	12-2-19	12-2-19	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	12-2-19	12-2-19	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	126	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-252-01							
	ORIG	DUP						
Diesel Range Organics	0.717	0.571	NA	NA	NA	NA	23	NA
Lube Oil Range Organics	1.03	0.795	NA	NA	NA	NA	26	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			133	117	50-150			



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TOTAL METALS
EPA 200.8/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-1					
Laboratory ID:	11-269-01					
Arsenic	15	3.3	EPA 200.8	12-4-19	12-4-19	
Barium	28	28	EPA 200.8	12-4-19	12-4-19	
Cadmium	ND	4.4	EPA 200.8	12-4-19	12-4-19	
Chromium	ND	11	EPA 200.8	12-4-19	12-4-19	
Lead	ND	1.1	EPA 200.8	12-4-19	12-4-19	
Mercury	ND	0.50	EPA 7470A	12-4-19	12-4-19	
Selenium	ND	5.6	EPA 200.8	12-4-19	12-4-19	
Silver	ND	11	EPA 200.8	12-4-19	12-4-19	

Client ID:	MW-2					
Laboratory ID:	11-269-02					
Arsenic	ND	3.3	EPA 200.8	12-4-19	12-4-19	
Barium	ND	28	EPA 200.8	12-4-19	12-4-19	
Cadmium	ND	4.4	EPA 200.8	12-4-19	12-4-19	
Chromium	ND	11	EPA 200.8	12-4-19	12-4-19	
Lead	ND	1.1	EPA 200.8	12-4-19	12-4-19	
Mercury	ND	0.50	EPA 7470A	12-4-19	12-4-19	
Selenium	ND	5.6	EPA 200.8	12-4-19	12-4-19	
Silver	ND	11	EPA 200.8	12-4-19	12-4-19	

Client ID:	MW-3					
Laboratory ID:	11-269-03					
Arsenic	31	3.3	EPA 200.8	12-4-19	12-4-19	
Barium	ND	28	EPA 200.8	12-4-19	12-4-19	
Cadmium	ND	4.4	EPA 200.8	12-4-19	12-4-19	
Chromium	ND	11	EPA 200.8	12-4-19	12-4-19	
Lead	ND	1.1	EPA 200.8	12-4-19	12-4-19	
Mercury	ND	0.50	EPA 7470A	12-4-19	12-4-19	
Selenium	ND	5.6	EPA 200.8	12-4-19	12-4-19	
Silver	ND	11	EPA 200.8	12-4-19	12-4-19	



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TOTAL METALS
EPA 200.8/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	DUP-1					
Laboratory ID:	11-269-04					
Arsenic	14	3.3	EPA 200.8	12-4-19	12-4-19	
Barium	ND	28	EPA 200.8	12-4-19	12-4-19	
Cadmium	ND	4.4	EPA 200.8	12-4-19	12-4-19	
Chromium	ND	11	EPA 200.8	12-4-19	12-4-19	
Lead	ND	1.1	EPA 200.8	12-4-19	12-4-19	
Mercury	ND	0.50	EPA 7470A	12-4-19	12-4-19	
Selenium	ND	5.6	EPA 200.8	12-4-19	12-4-19	
Silver	ND	11	EPA 200.8	12-4-19	12-4-19	

Client ID: F-15 Clean out

Laboratory ID:	11-269-05					
Arsenic	7.4	3.3	EPA 200.8	12-4-19	12-4-19	
Barium	ND	28	EPA 200.8	12-4-19	12-4-19	
Cadmium	ND	4.4	EPA 200.8	12-4-19	12-4-19	
Chromium	ND	11	EPA 200.8	12-4-19	12-4-19	
Lead	ND	1.1	EPA 200.8	12-4-19	12-4-19	
Mercury	ND	0.50	EPA 7470A	12-4-19	12-4-19	
Selenium	ND	5.6	EPA 200.8	12-4-19	12-4-19	
Silver	ND	11	EPA 200.8	12-4-19	12-4-19	

Client ID: SE Drain Wall

Laboratory ID:	11-269-06					
Arsenic	4.0	3.3	EPA 200.8	12-4-19	12-4-19	
Barium	ND	28	EPA 200.8	12-4-19	12-4-19	
Cadmium	ND	4.4	EPA 200.8	12-4-19	12-4-19	
Chromium	ND	11	EPA 200.8	12-4-19	12-4-19	
Lead	ND	1.1	EPA 200.8	12-4-19	12-4-19	
Mercury	ND	0.50	EPA 7470A	12-4-19	12-4-19	
Selenium	ND	5.6	EPA 200.8	12-4-19	12-4-19	
Silver	ND	11	EPA 200.8	12-4-19	12-4-19	



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**TOTAL METALS
 EPA 200.8/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1204WM1					
Arsenic	ND	3.3	EPA 200.8	12-4-19	12-4-19	
Barium	ND	28	EPA 200.8	12-4-19	12-4-19	
Cadmium	ND	4.4	EPA 200.8	12-4-19	12-4-19	
Chromium	ND	11	EPA 200.8	12-4-19	12-4-19	
Lead	ND	1.1	EPA 200.8	12-4-19	12-4-19	
Selenium	ND	5.6	EPA 200.8	12-4-19	12-4-19	
Silver	ND	11	EPA 200.8	12-4-19	12-4-19	

Laboratory ID:	MB1204W1					
Mercury	ND	0.50	EPA 7470A	12-4-19	12-4-19	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-151-10							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	ND	ND	NA	NA	NA	NA	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	ND	ND	NA	NA	NA	NA	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	11-269-01							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	11-151-10									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	119	118	111	111	ND	107	106	75-125	1	20
Barium	124	125	111	111	ND	112	113	75-125	1	20
Cadmium	114	112	111	111	ND	103	101	75-125	1	20
Chromium	113	114	111	111	ND	102	103	75-125	1	20
Lead	122	123	111	111	ND	110	111	75-125	1	20
Selenium	123	128	111	111	ND	111	115	75-125	4	20
Silver	114	120	111	111	ND	103	108	75-125	4	20

Laboratory ID:	11-269-01									
Mercury	11.7	12.0	12.5	12.5	ND	94	96	75-125	2	20



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Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Chain of Custody

Company: **SCS Engineers**

Project Number: **64218014.00**

Project Name: **Bellvue South**

Project Manager: **Brian Doan**

Sampled by: **Sam Graber**

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
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1	MW-1	11/26/19	1029	Water
2	MW-2		909	
3	MW-3		1303	
4	Dup-1		1040	
5	F-15 Cleanout		1133	
6	SE Drain Wall		1218	

Number of Containers

Matrix	Number of Containers
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx (Mineral Spirits)	X
NWTPH-Dx (Acid / SG Clean-up)	X
Volatiles 8260C	
Halogenated Volatiles 8260C	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	X
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	
% Moisture	

Laboratory Number: 11-269

Signature	Company	Date	Time
<i>[Signature]</i>	SCS	11/26/19	16:20

Comments/Special Instructions

Please include ETM EDD w/ report deliverable.

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)