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# TECHNICAL MEMORANDUM

**TO:** Grant Yang – Washington State Department of Ecology

cc: Brett Richer – Georgetown Crossroads, LLC

**FROM:** Pete Kingston, L.G., Principal Geologist

**DATE:** May 23, 2022

RE: SUMMARY OF JANUARY AND APRIL 2022 COMPLIANCE

GROUNDWATER MONITORING EVENTS

6050 EAST MARGINAL WAY SOUTH

SEATTLE, WASHINGTON FARALLON PN: 1071-010 VCP PROJECT NO.: NW3050



Farallon Consulting, L.L.C. (Farallon) has prepared this Technical Memorandum on behalf of Georgetown Crossroads, LLC to provide the Washington State Department of Ecology (Ecology) with documentation of the January and April 2022 compliance groundwater monitoring events for the property at 6050 East Marginal Way South in Seattle, Washington (herein referred to as the Property) (Figure 1).

The "Site," as defined under the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), is confined within the boundaries of the Property where petroleum hydrocarbons have come to be located at concentrations exceeding applicable MTCA cleanup levels. Vinyl chloride in groundwater has migrated onto the Property from up-gradient off-Property contaminant sources. The Site is enrolled in the Ecology Voluntary Cleanup Program and has been assigned Project No. NW3050.

Redevelopment of the Property began in June 2017 for construction of a three-floor industrial warehouse with a total of approximately 590,000 square feet of space; and associated ramps, driveways, loading and unloading areas, and parking. A cleanup action was completed in conjunction with Property redevelopment in accordance with a Cleanup Action Plan<sup>1</sup> and an

<sup>&</sup>lt;sup>1</sup> Remedial Investigation, Focused Feasibility Study, and Cleanup Action Plan, 6050 East Marginal Way South Property, Seattle, Washington dated February 11, 2016 prepared by Farallon.



Environmental Media Management Plan.<sup>2</sup> The permanent cleanup action was documented in a Cleanup Action Report.<sup>3</sup> Ecology reviewed the Cleanup Action Report and provided a 2018 Opinion Letter<sup>4</sup> indicating that the Site likely would be granted a No Further Action determination if compliance groundwater monitoring wells were installed at the Site and four quarters of groundwater compliance monitoring demonstrated that groundwater impacts at the Site had been remediated to concentrations less than applicable MTCA cleanup levels. In addition, Ecology requested the installation of an additional compliance groundwater monitoring well to evaluate the potential migration of vinyl chloride from off-Property contaminant sources located up-gradient of the Site.

Between December 2018 and November 2020, seven compliance groundwater monitoring events were conducted at the Site. Groundwater monitoring events included measuring depth to groundwater and collecting groundwater samples from the compliance monitoring well network consisting of monitoring wells MW-15 through MW-22. Compliance groundwater monitoring was documented in an April 2021 Technical Memorandum.<sup>5</sup>

Ecology reviewed the April 2021 Technical Memorandum and provided the 2021 Opinion Letter,<sup>6</sup> which included comments and requests for additional information concerning the Property. Farallon provided responses to Ecology's 2021 Opinion Letter in an October 2021 Technical Memorandum.<sup>7</sup>

In a series of emails between Grant Yang of Ecology and Pete Kingston of Farallon on January 11, 2022, Ecology concurred with the October 2021 Technical Memorandum that vinyl chloride in groundwater has migrated onto the Property from up-gradient off-Property contaminant sources and that the groundwater to surface water pathway is incomplete for the Site. However, Ecology requested additional groundwater monitoring to support a No Further Action determination. Farallon provided Ecology with a scope of work for additional compliance groundwater

<sup>&</sup>lt;sup>2</sup>Environmental Media Management Plan, 6050 East Marginal Way South Property, Seattle, Washington dated February 11, 2016 prepared by Farallon.

<sup>&</sup>lt;sup>3</sup> Cleanup Action Closure Report, 6050 East Marginal Way South, Seattle, Washington dated July 25, 2018 prepared by Farallon.

<sup>&</sup>lt;sup>4</sup> Letter Regarding Opinion on Proposed Cleanup of the Following Site: Site Name: Consolidated Freightways Seattle, Site Address: 6050 E. Marginal Way, Seattle, WA 98108, Facility/Site No.: 54757868, VCP Project No.: NW3050 dated October 9, 2018 from Grant Yang of Ecology to Janet Frentzel of Georgetown Crossroads, LLC.

<sup>&</sup>lt;sup>5</sup> Technical Memorandum Regarding the Summary of Compliance Monitoring Well Installation and Groundwater Compliance Monitoring Results, 6050 East Marginal Way South, Seattle, Washington dated April 6, 2021 from Pete Kingston and Scott Allin of Farallon to Grant Yang of Ecology.

<sup>&</sup>lt;sup>6</sup> Letter Regarding Opinion Pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site: Site Name: Consolidated Freightways Seattle; Site Address: 6050 E. Marginal Way, Seattle, WA 98108; Facility/Site No.: 54757868; Cleanup Site ID No.: 6262; VCP Project No.: NW3050 dated July 15, 2021 from Grant Yang of Ecology to Brett Richer of Georgetown Crossroads, LLC.

<sup>&</sup>lt;sup>7</sup> Technical Memorandum Regarding Response to Ecology Opinion Letter dated July 15, 2021, 6050 East Marginal Way South, Seattle, Washington dated October 7, 2021 from Pete Kingston and Scott Allin of Farallon to Grant Yang of Ecology.

<sup>&</sup>lt;sup>8</sup> Email Thread Regarding Issue Remained at Conventional Freightways Seattle and Response to Ecology Comments - VCP NW3050 dated January 11, 2022 from Grant Yang of Ecology to Pete Kingston of Farallon.



monitoring, which included collection of groundwater samples from all compliance groundwater monitoring wells in January 2022, and from a subset of monitoring wells in April 2022. Ecology approved the proposed scope of work via email on January 11, 2022.

# 2022 GROUNDWATER MONITORING EVENTS

The compliance groundwater monitoring events were conducted in January and April 2022 in accordance with the scope of work approved by Ecology. The January 2022 groundwater monitoring event included measuring depth to groundwater and collecting groundwater samples from monitoring wells MW-15 through MW-22. The April 2022 groundwater monitoring event included measuring depth to groundwater from monitoring wells MW-15 through MW-22 and collecting groundwater samples from monitoring wells MW-19 through MW-21.

Purging and sampling were conducted in accordance with U.S. Environmental Protection Agency low-flow sampling procedures. Following purging, groundwater samples were collected directly from the pump outlet tubing upstream of the flow-through cell and placed into laboratory prepared sample containers. The sample containers were placed in an iced cooler and transported under standard chain-of-custody protocols to Apex Laboratories, LLC of Tigard, Oregon for laboratory analysis for total petroleum hydrocarbons as diesel-range organics and as oil-range organics (DRO and ORO, respectively) by Northwest Method NWTPH-Dx.

# **RESULTS**

Tables 1 and 2 provide updated groundwater elevations and analytical results. Figures 2 and 3 show updated contours and analytical results. Laboratory analytical reports are included in Attachment A.

During the compliance groundwater monitoring events, shallow groundwater was encountered at depths ranging from approximately 5 to 9.5 feet below ground surface. Synoptic depth-to-groundwater measurements from the monitoring wells on the Property and corresponding calculated groundwater elevations are provided in Table 1. Based on groundwater contours developed using the synoptic measurements, the interpreted groundwater flow direction of the shallow groundwater-bearing zone is toward the southwest (Figure 2).

Figure 3 and Table 2 include the sum of DRO and ORO analyzed using Ecology Method NWTPH-Dx (herein referred to collectively as NWTPH-Dx). NWTPH-Dx concentrations were less than the applicable MTCA Method A cleanup level in groundwater samples collected from all monitoring wells during compliance groundwater monitoring events conducted in January and April 2022. The complete analytical laboratory reports are provided in Attachment A.

The results from the January and April 2022 compliance groundwater monitoring events confirm that groundwater meets the cleanup standards for the Site.



# **CLOSING**

Farallon, on behalf of Georgetown Crossroads, LLC, requests that Ecology issue a No Further Action determination for the Site.

If you have questions or require additional information, please contact Pete Kingston at (425) 394-4146. Thank you in advance for your assistance with this project.

Attachments: Figure 1, Site Vicinity Map

Figure 2, Groundwater Flow Direction, April 11, 2022 Figure 3, Groundwater Analytical Results for NWTPH-Dx

Table 1, Groundwater Elevations

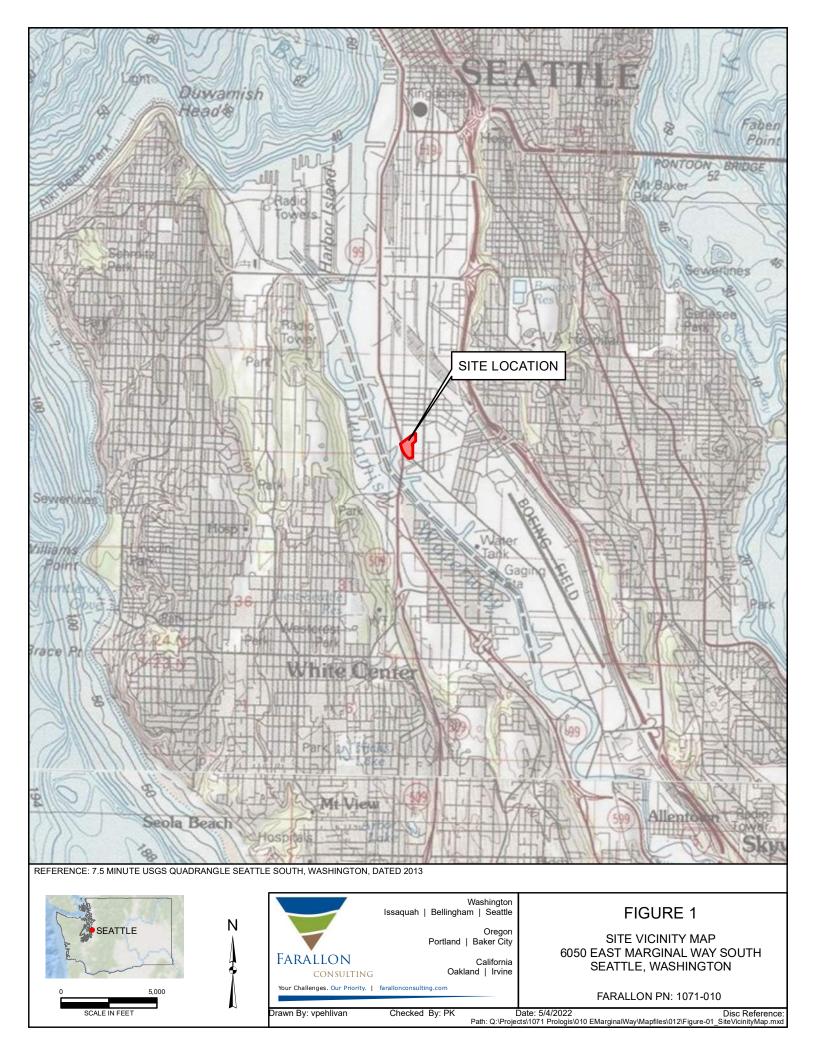
Table 2, Groundwater Analytical Results for NWTPH-Dx

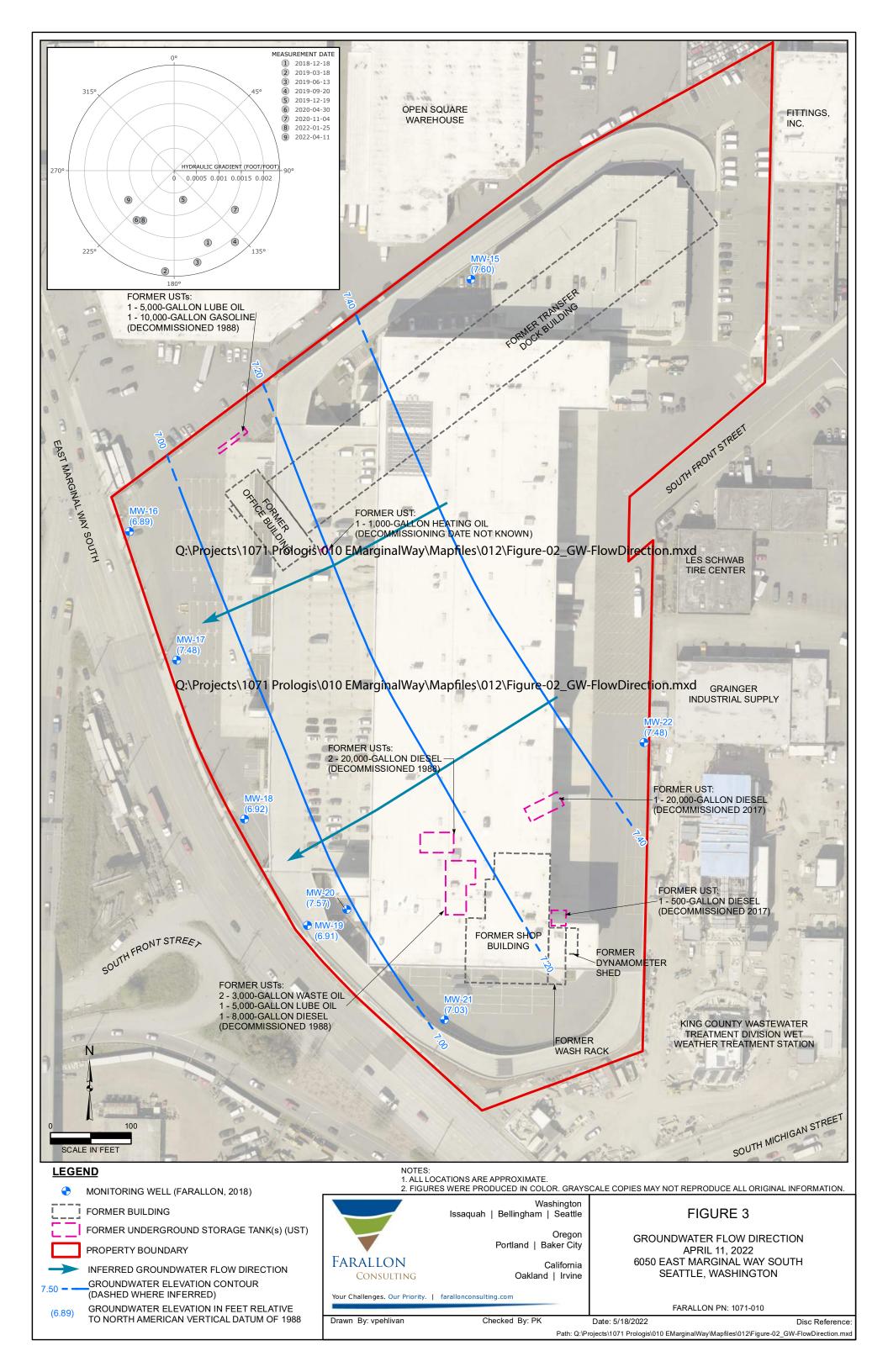
Attachment A, Laboratory Analytical Reports

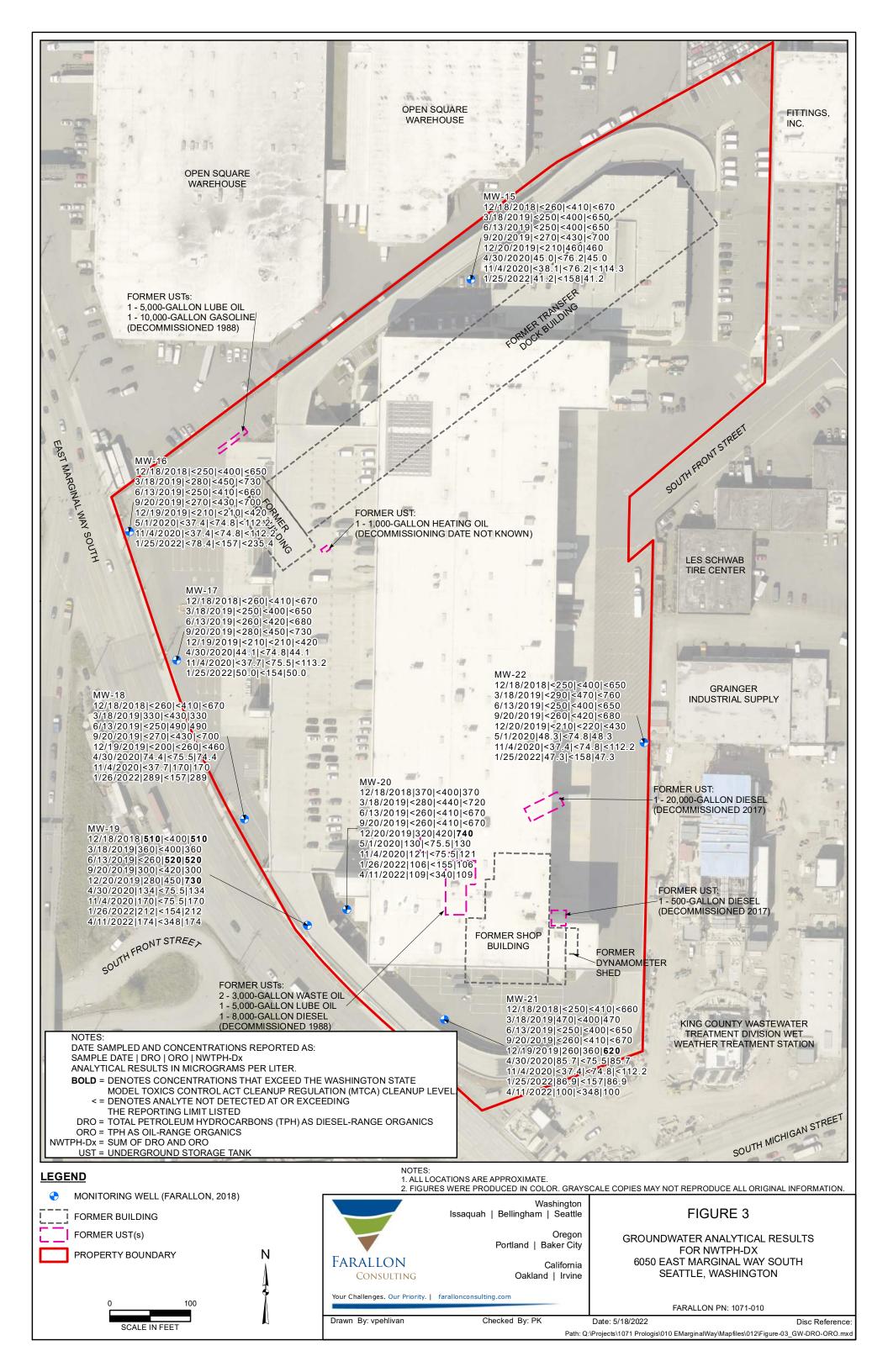
PK:eh

# **FIGURES**

SUMMARY OF JANUARY AND APRIL 2022 COMPLIANCE GROUNDWATER MONITORING EVENTS 6050 East Marginal Way South Seattle, Washington







# **TABLES**

SUMMARY OF JANUARY AND APRIL 2022 COMPLIANCE GROUNDWATER MONITORING EVENTS 6050 East Marginal Way South Seattle, Washington

# Table 1 Groundwater Elevations 6050 East Marginal Way South Seattle, Washington

Location	Top of Casing Elevation (feet NAVD88) <sup>1</sup>	Monitoring Date	Depth to Water (feet) <sup>2</sup>	Water Level Elevation (feet NAVD88) <sup>1</sup>
	,	12/18/2018	9.39	6.78
		3/18/2019	9.58	6.59
		6/13/2019	10.92	5.25
		9/20/2019	10.92	5.25
MW-15	16.17	12/19/2019	9.53	6.64
		4/30/2020	9.34	6.83
		11/4/2020	9.30	6.87
		1/25/2022	8.28	7.89
		4/11/2022	8.57	7.60
		12/18/2018	8.66	6.78
		3/18/2019	9.38	6.06
		6/13/2019	11.23	4.21
		9/20/2019	10.32	5.12
MW-16	15.44	12/19/2019	8.55	6.89
		4/30/2020	9.15	6.29
		11/4/2020	8.47	6.97
		1/25/2022	7.87	7.57
		4/11/2022	8.55	6.89
		12/18/2018	8.76	6.64
		3/18/2019	9.85	5.55
		6/13/2019	10.49	4.91
		9/20/2019	10.69	4.71
MW-17	15.40	12/19/2019	8.81	6.59
		4/30/2020	9.15	6.25
		11/4/2020	6.82	8.58
		1/25/2022	7.01	8.39
		4/11/2022	7.92	7.48
		12/18/2018	9.84	6.22
		3/18/2019	10.42	5.64
		6/13/2019	11.88	4.18
		9/20/2019	11.67	4.39
MW-18	16.06	12/19/2019	9.65	6.41
		4/30/2020	10.13	5.93
		11/4/2020	9.45	6.61
		1/25/2022	8.88	7.18
		4/11/2022	9.14	6.92

# Table 1 Groundwater Elevations 6050 East Marginal Way South Seattle, Washington

Farallon PN: 1071-010

	Top of Casing Elevation		Depth to Water	Water Level Elevation
Location	(feet NAVD88) <sup>1</sup>	Monitoring Date	(feet) <sup>2</sup>	(feet NAVD88) <sup>1</sup>
	,	12/18/2018	8.31	5.99
		3/18/2019	8.95	5.35
		6/13/2019	10.53	3.77
		9/20/2019	8.80	5.50
MW-19	14.30	12/19/2019	8.08	6.22
		4/30/2020	8.51	5.79
		11/4/2020	7.89	6.41
		1/25/2022	7.30	7.00
		4/11/2022	7.39	6.91
		12/18/2018	7.04	5.89
		3/18/2019	8.64	4.29
		6/13/2019	9.21	3.72
		9/20/2019	8.80	4.13
MW-20	12.93	12/19/2019	6.68	6.25
		4/30/2020	7.09	5.84
		11/4/2020	6.51	6.42
		1/25/2022	5.85	7.08
		4/11/2022	5.36	7.57
		12/18/2018	11.15	5.07
		3/18/2019	11.77	4.45
		6/13/2019	13.22	3.00
		9/20/2019	13.35	2.87
MW-21	16.22	12/19/2019	10.00	6.22
		4/30/2020	10.30	5.92
		11/4/2020	9.79	6.43
		1/25/2022	9.11	7.11
		4/11/2022	9.19	7.03
		12/18/2018	8.47	6.26
		3/18/2019	8.84	5.89
		6/13/2019	10.78	3.95
		9/20/2019	10.58	4.15
MW-22	14.73	12/19/2019	8.13	6.60
		4/30/2020	8.12	6.61
		11/4/2020	8.04	6.69
		1/25/2022	7.00	7.73
		4/11/2022	7.25	7.48

Notes:

NAVD88 = North American Vertical Datum of 1988

<sup>&</sup>lt;sup>1</sup> In feet above mean sea level.

<sup>&</sup>lt;sup>2</sup> In feet below top of well casing.

# Table 2 Groundwater Analytical Results for NWTPH-Dx 6050 East Marginal Way South Seattle, Washington

			Analytical 1	Results (microgran	ns per liter) <sup>1</sup>
Sample Location	Sample Date	Sample Identification	DRO	ORO	NWTPH-Dx <sup>2</sup>
	12/18/2018	MW-15-121818	< 260	< 410	< 670
	3/18/2019	MW-15-031819	< 250	< 400	< 650
	6/13/2019	MW-15-061319	< 250	< 400	< 650
MW-15	9/20/2019	MW-15-092019	< 270	< 430	< 700
IVI VV -1 3	12/20/2019	MW-15-122019	< 210	460	460
	4/30/2020	MW-15-042020	45.0 J	< 76.2	45.0 J
	11/4/2020	MW-15-110420	< 38.1	< 76.2	< 114.3
	1/25/2022	MW-15-012522	41.2 J	< 158	41.2 J
	12/18/2018	MW-16-121818	< 250	< 400	< 650
	3/18/2019	MW-16-031819	< 280	< 450	< 730
	6/13/2019	MW-16-061319	< 250	< 410	< 660
MW-16	9/20/2019	MW-16-092019	< 270	< 430	< 700
IVI W - 1 0	12/19/2019	MW-16-121919	< 210	< 210	< 420
	5/1/2020	MW-16-052020	< 37.4	< 74.8	< 112.2
	11/4/2020	MW-16-110420	< 37.4	< 74.8	< 112.2
	1/25/2022	MW-16-012522	< 78.4	< 157	< 235.4
	12/18/2018	MW-17-121818	< 260	< 410	< 670
	3/18/2019	MW-17-031819	< 250	< 400	< 650
	6/13/2019	MW-17-061319	< 260	< 420	< 680
MW-17	9/20/2019	MW-17-092019	< 280	< 450	< 730
IVI VV -1 /	12/19/2019	MW-17-121919	< 210	< 210	< 420
	4/30/2020	MW-17-042020	44.1 J	< 74.8	44.1 J
	11/4/2020	MW-17-110420	< 37.7	< 75.5	< 113.2
	1/25/2022	MW-17-012522	50.0 J	< 154	50.0 J
MTCA Method A C	Cleanup Level for	Groundwater <sup>3</sup>	500	500	500

# Table 2 Groundwater Analytical Results for NWTPH-Dx 6050 East Marginal Way South Seattle, Washington

			Analytical	Results (microgran	ns per liter) <sup>1</sup>
Sample Location	Sample Date	Sample Identification	DRO	ORO	NWTPH-Dx <sup>2</sup>
	12/18/2018	MW-18-121818	< 260	< 410	< 670
	3/18/2019	MW-18-031819	330	< 430	330
	6/13/2019	MW-18-061319	< 250	490	490
MW-18	9/20/2019	MW-18-092019	< 270	< 430	< 700
IVI VV -1 8	12/19/2019	MW-18-121919	< 200	< 260	< 460
	4/30/2020	MW-18-042020	74.4 J	< 75.5	74.4 J
	11/4/2020	MW-18-110420	< 37.7	170	170
	1/26/2022	MW-18-012622	289	< 157	289
	12/18/2018	MW-19-121818	510	< 400	510
	3/18/2019	MW-19-031819	360	< 400	360
	6/13/2019	MW-19-061319	< 260	520	520
	9/20/2019	MW-19-092019	300	< 420	300
MW-19	12/20/2019	MW-19-122019	280	450	730
	4/30/2020	MW-19-042020	134	< 75.5	134
	11/4/2020	MW19-110420	170	< 75.5	170
	1/26/2022	MW-19-012622	212	< 154	212
	4/11/2022	MW-19-041122	174	< 348	174
	12/18/2018	MW-20-121818	370	< 400	370
	3/18/2019	MW-20-031819	< 280	< 440	< 720
	6/13/2019	MW-20-061319	< 260	< 410	< 670
	9/20/2019	MW-20-092019	< 260	< 410	< 670
MW-20	12/20/2019	MW-20-122019	320	420	740
	5/1/2020	MW-20-052020	130	< 75.5	130
	11/4/2020	MW20-110420	121	< 75.5	121
	1/26/2022	MW-20-012622	106	< 155	106
	4/11/2022	MW-20-041122	109 J	< 340	109 J
MTCA Method A C	Cleanup Level for	Groundwater <sup>3</sup>	500	500	500

# Table 2 Groundwater Analytical Results for NWTPH-Dx

# 6050 East Marginal Way South Seattle, Washington

Farallon PN: 1071-010

			Analytical 1	Results (microgra	ms per liter) <sup>1</sup>
Sample Location	Sample Date	Sample Identification	DRO	ORO	NWTPH-Dx <sup>2</sup>
	12/18/2018	MW-21-121818	< 250	< 410	< 660
	3/18/2019	MW-21-031819	470	< 400	470
	6/13/2019	MW-21-061319	< 250	< 400	< 650
	9/20/2019	MW-21-092019	< 260	< 410	< 670
MW-21	12/19/2019	MW-21-121919	260	360	620
	4/30/2020	MW-21-042020	85.7	< 75.5	85.7
	11/4/2020	MW21-110420	< 37.4	< 74.8	< 112.2
	1/25/2022	MW-21-012522	86.9	< 157	86.9
	4/11/2022	MW-21-041122	100 J	< 348	100 J
	12/18/2018	MW-22-121818	< 250	< 400	< 650
	3/18/2019	MW-22-031819	< 290	< 470	< 760
	6/13/2019	MW-22-061319	< 250	< 400	< 650
MW-22	9/20/2019	MW-22-092019	< 260	< 420	< 680
IVI VV -22	12/20/2019	MW-22-122019	< 210	< 220	< 430
	5/1/2020	MW-22-052020	48.3 J	< 74.8	48.3 J
	11/4/2020	MW22-110420	< 37.4	< 74.8	< 112.2
	1/25/2022	MW-22-012522	47.3 J	< 158	47.3 J
MTCA Method A (	Cleanup Level for	Groundwater <sup>3</sup>	500	500	500

#### NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

< denotes analyte not detected at or exceeding the reporting limit listed.

J = result is an estimate

ORO = TPH as oil-range organics

<sup>&</sup>lt;sup>1</sup>Analyzed by Northwest Method NWTPH-Dx.

<sup>&</sup>lt;sup>2</sup>Sum of DRO and ORO.

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

<sup>&</sup>lt;sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as amended 2013.

# ATTACHMENT A LABORATORY ANALYTICAL REPORTS

SUMMARY OF JANUARY AND APRIL 2022 COMPLIANCE GROUNDWATER MONITORING EVENTS 6050 East Marginal Way South Seattle, Washington



Apex Laboratories, LLC

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

Wednesday, February 2, 2022
Pete Kingston
Farallon-Seattle
1809 7th Ave Suite 1111
Seattle, WA 98101

RE: A2A0951 - Georgetown Crossroads - 1071-010

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 A2A0951, which was received by the laboratory on 1/27/2022 at 8:00:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <a href="mailto:pnerenberg@apex-labs.com">pnerenberg@apex-labs.com</a>, or by phone at 503-718-2323.

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

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 3.3 degC

Cooler #2

1.9 degC

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

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





Apex Laboratories

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.

Philip Nerenberg, Lab Director

Philip Nevenberg



# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

# ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-15-012522	A2A0951-01	Water	01/25/22 10:59	01/27/22 08:00
MW-16-012522	A2A0951-02	Water	01/25/22 11:48	01/27/22 08:00
MW-17-012522	A2A0951-03	Water	01/25/22 13:04	01/27/22 08:00
MW-21-012522	A2A0951-04	Water	01/25/22 14:09	01/27/22 08:00
MW-22-012522	A2A0951-05	Water	01/25/22 15:07	01/27/22 08:00
MW-18-012622	A2A0951-06	Water	01/26/22 09:20	01/27/22 08:00
MW-19-012622	A2A0951-07	Water	01/26/22 10:19	01/27/22 08:00
MW-20-012622	A2A0951-08	Water	01/26/22 11:09	01/27/22 08:00

Apex Laboratories

Philip Nevenberg

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

<u>Farallon-Seattle</u> Project: <u>Georgetown Crossroads</u>

 1809 7th Ave Suite 1111
 Project Number:
 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager:
 Pete Kingston
 A2A0951 - 02 02 22 1027

# ANALYTICAL SAMPLE RESULTS

	Die	sel and/or O	il Hydrocar	bons by NWTP	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-15-012522 (A2A0951-01)				Matrix: Wat			22A1042	
Diesel	41.2	39.6	79.2	ug/L	1	01/31/22 07:40	NWTPH-Dx LL	J
Oil	41.2 ND	79.2	158	ug/L ug/L	1	01/31/22 07:40	NWTPH-Dx LL	J
Surrogate: o-Terphenyl (Surr)			very: 90 %	Limits: 50-150 9		01/31/22 07:40	NWTPH-Dx LL	
MW-16-012522 (A2A0951-02)				Matrix: Wat	er	Batch:	22A1042	
Diesel	ND	39.2	78.4	ug/L	1	01/31/22 08:01	NWTPH-Dx LL	
Oil	ND	78.4	157	ug/L	1	01/31/22 08:01	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Reco	very: 96%	Limits: 50-150 9	% I	01/31/22 08:01	NWTPH-Dx LL	
MW-17-012522 (A2A0951-03)	-			Matrix: Wat	er	Batch:	22A1042	
Diesel	50.0	38.5	76.9	ug/L	1	01/31/22 08:21	NWTPH-Dx LL	J
Oil	ND	76.9	154	ug/L	1	01/31/22 08:21	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Reco	very: 89 %	Limits: 50-150 %	% 1	01/31/22 08:21	NWTPH-Dx LL	
MW-21-012522 (A2A0951-04)				Matrix: Wat	er	Batch:	22A1042	
Diesel	86.9	39.2	78.4	ug/L	1	01/31/22 08:41	NWTPH-Dx LL	F-11
Oil	ND	78.4	157	ug/L	1	01/31/22 08:41	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Reco	very: 93 %	Limits: 50-150 %	% 1	01/31/22 08:41	NWTPH-Dx LL	
MW-22-012522 (A2A0951-05)				Matrix: Wat	er	Batch:	22A1042	
Diesel	47.3	39.6	79.2	ug/L	1	01/31/22 09:02	NWTPH-Dx LL	J
Oil	ND	79.2	158	ug/L	1	01/31/22 09:02	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Reco	very: 98 %	Limits: 50-150 9	% 1	01/31/22 09:02	NWTPH-Dx LL	
MW-18-012622 (A2A0951-06)				Matrix: Wat	er	Batch:	22A1042	
Diesel	289	39.2	78.4	ug/L	1	01/31/22 09:22	NWTPH-Dx LL	F-11
Oil	ND	78.4	157	ug/L	1	01/31/22 09:22	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Reco	very: 94 %	Limits: 50-150 %	% 1	01/31/22 09:22	NWTPH-Dx LL	
MW-19-012622 (A2A0951-07)				Matrix: Wat	er	Batch:	22A1042	· · ·
Diesel	212	38.5	76.9	ug/L	1	01/31/22 09:42	NWTPH-Dx LL	F-11
Oil	ND	76.9	154	ug/L	1	01/31/22 09:42	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Reco	very: 95 %	Limits: 50-150 9	% 1	01/31/22 09:42	NWTPH-Dx LL	<u> </u>

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.

Philip Nerenberg, Lab Director

Philip Nevenberg



# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

# ANALYTICAL SAMPLE RESULTS

	Die	esel and/or O	il Hydrocar	bons by NWTPI	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-20-012622 (A2A0951-08)				Matrix: Wate	er	Batch:	22A1042	
Diesel	106	38.8	77.7	ug/L	1	01/31/22 10:03	NWTPH-Dx LL	F-11
Oil	ND	77.7	155	ug/L	1	01/31/22 10:03	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Reco	very: 98 %	Limits: 50-150 %	5 1	01/31/22 10:03	NWTPH-Dx LL	

Apex Laboratories

Philip Menberg

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>Farallon-Seattle</u> Project: <u>Georgetown Crossroads</u>

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

# QUALITY CONTROL (QC) SAMPLE RESULTS

		D	iesel and/d	r Oil Hyd	Irocarbon	s by NWT	PH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22A1042 - EPA 3510C (	Fuels/Acid	l Ext.)					Wa	ter				
Blank (22A1042-BLK1)			Prepared	1: 01/28/22	12:23 Anal	lyzed: 01/31/	/22 07:40					
NWTPH-Dx LL												
Diesel	ND	36.4	72.7	ug/L	1							
Oil	ND	72.7	145	ug/L	1							
Surr: o-Terphenyl (Surr)		Reco	overy: 92 %	Limits: 50	0-150 %	Dilu	ution: 1x					
LCS (22A1042-BS1)			Prepared	l: 01/28/22	12:23 Anal	yzed: 01/31/	/22 08:01					
NWTPH-Dx LL												
Diesel	445	40.0	80.0	ug/L	1	500		89	36-132%			
Surr: o-Terphenyl (Surr)		Reco	overy: 92 %	Limits: 50	0-150 %	Dilu	ution: 1x					
LCS Dup (22A1042-BSD1)			Prepared	1: 01/28/22	12:23 Anal	lyzed: 01/31/	/22 08:21					Q-19
NWTPH-Dx LL												
Diesel	433	40.0	80.0	ug/L	1	500		87	36-132%	3	30%	
Surr: o-Terphenyl (Surr)		Reco	overy: 94 %	Limits: 50	0-150 %	Dilu	tion: 1x					

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

# SAMPLE PREPARATION INFORMATION

		Diesel and	d/or Oil Hydrocarbor	ns by NWTPH-Dx			
Prep: EPA 3510C (Fu	uels/Acid Ext.)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22A1042							
A2A0951-01	Water	NWTPH-Dx LL	01/25/22 10:59	01/28/22 13:00	1010mL/2mL	1000mL/2mL	0.99
A2A0951-02	Water	NWTPH-Dx LL	01/25/22 11:48	01/28/22 13:00	1020mL/2mL	1000mL/2mL	0.98
A2A0951-03	Water	NWTPH-Dx LL	01/25/22 13:04	01/28/22 13:00	1040mL/2mL	1000mL/2mL	0.96
A2A0951-04	Water	NWTPH-Dx LL	01/25/22 14:09	01/28/22 13:00	1020mL/2mL	1000mL/2mL	0.98
A2A0951-05	Water	NWTPH-Dx LL	01/25/22 15:07	01/28/22 13:00	1010mL/2mL	1000mL/2mL	0.99
A2A0951-06	Water	NWTPH-Dx LL	01/26/22 09:20	01/28/22 13:00	1020mL/2mL	1000mL/2mL	0.98
A2A0951-07	Water	NWTPH-Dx LL	01/26/22 10:19	01/28/22 13:00	1040mL/2mL	1000mL/2mL	0.96
A2A0951-08	Water	NWTPH-Dx LL	01/26/22 11:09	01/28/22 13:00	1030mL/2mL	1000mL/2mL	0.97

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Philip Menberg

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Philip Nerenberg, Lab Director

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

# **QUALIFIER DEFINITIONS**

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

# **Apex Laboratories**

- F-11 The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-19 Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.

Apex Laboratories

Philip Nevenberg

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Philip Nerenberg, Lab Director

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# Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

#### 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) may not be 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.

Anex	Labora	atories

Philip Nevenberg

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Philip Nerenberg, Lab Director

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# Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number:
 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager:
 Pete Kingston
 A2A0951 - 02 02 22 1027

# **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

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Philip Nerenberg, Lab Director

Philip Nevenberg

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# Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

#### 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 <u>exception</u> 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

Philip Nevenberg

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Philip Nerenberg, Lab Director

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

company: Farallon		Project A	Project Mgr. Pete Kingston	2 P	100	À		4	roject )	ame:	3	3	100	to	Project Name: Emerald (2004-119.1		-	iort #	Project #: 1071	1			
Address: 1809 7th Ave 5 wite 1111, Seattle WA Phone: 26 200 2346 Email: Phingston @Favallon conjusting poot	J. Stiv	計	Peatle	MA	7 🐔	K.	28.0	0	報	Email	, Å	1984	8	Fare	llono	25.	35	#		2			1
Sampled by: Courtiney van Stolk	Stoll		İ	1									₹	(ALY	ANALYSIS REQUEST	UEST							
Site Location:								-			٦,	H	<u> </u>			ď			_		_	-	-
OR WACA			-	SH				501			siA Un			(1	NI K Se Pb se Cd	Zn	-	4	_				-
AK ID						Χŧ				sHVe				EI) slai	Ba, B Cu, I t, Mo,	LL, V,	(8) sh	7790					
SAMPLEID	DATE	TIME	XIXIV	MMLbH-1	I-HATWN	-HATWN	31E 0978	8260 Halo	3760 VOC	WIS 0478	-ims2 0718	1081 Pestic	SCRA Mei	riority Me	, Sb, As, b, Cr, Co, g, Mg, Mi h, Ag, Na,	AE, Na,	CLP Meta				***********	oldme2 b	
MW-15-012522	1-25 1059		30	Ce	1×		$\vdash$	+	-		-	-	-	ď	H C V	Se T	L		+	1	+	он	-
MW-16-012522	-	1148	_		×		-	-	_		+	-	$\perp$			T	+-	1	-		+		+
MW-17-012522		1304			×		$\vdash$	-	-		$\vdash$	-	-			1	+	1	-	+	+	1	+
MW-21-012522		6041			×		-	-			+	-	$\perp$				+	1	+	+	+		-
MW-22-012522	A	1507			×		$\vdash$	-	_		$\vdash$	+	-			1	+	#	+	+	+	$\perp$	-
MW-18-012633	1-26 0920	936			×			-			$\vdash$	-					-	1	-	+	+	$\perp$	_
MW-19-013622		6101			×		-				-					T	+		L	$\dagger$	+		+
MW-20-012622	-0	18	0	0	×			-				-	_				+		F	+	+		-
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<b>P</b>			/	+	1		$\vdash$	1	1	1		-	L			T	+	1	F	+	+		
Standard Turn Around Time (TAT) = 10 Business Days	Around Tin	e (TAT)	= 10 Busir	ress Day			1		П	SPEC	SPECIAL INSTRUCTIONS:	STRU	NOLL	isi.		1	1		-	1	-	_	4
TAT Downers of TAT	1 Day	7	2 Day		3 Day					Sav	Samples in 2	2	5	4	coolers	N							
(anna) nasanhaw 1771	5 Day	3	Standard		Other:		1	1															
	SAMPLES ARE HELD FOR 30 DAYS	FOR 30	DAYS						T														
	Date:	- 8	RECEIVED BY: Signature:	) BY:		"	Date: 01/26	6	و	RELING	RELINQUISHED BY:	IED BY			Date	1	<b>8</b>	RECEIVED BY:	ı,				- 1
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Philip Nerenberg, Lab Director

Philip Menberg

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-Seattle Project: Georgetown Crossroads

 1809 7th Ave Suite 1111
 Project Number: 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager: Pete Kingston
 A2A0951 - 02 02 22 1027

Client: August	Hon Favallon Element WO#: A2ACGS/
Project/Project #:	Emerald Gateway /1071-010
<b>Delivery Info</b> :	
	1/27/22 @ 800 By: My
Delivered by: Apex	Client ESS FedEx UPS Swift Senvoy SDS Other EVERGE
Cooler Inspection	Date/time inspected: 12/22@ StD By: My
Chain of Custody inclu	
Signed/dated by client	
Signed/dated by Apex	? Yes No
	Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler #7
Temperature (°C)	3.3 1.9
Received on ice? (Y/N	) <u>4 4</u>
Temp. blanks? (Y/N)	<u> </u>
Ice type: (Gel/Real/Otl	ner) <u>leal =&gt;</u>
Condition:	Good 7
	Date/time inspected: 1/27/22@16-25 By: 2/AM es \( \sum \) No Comments:
Bottle labels/COCs agr	ree? Yes / No _ Comments:
COC/container discrep	ancies form initiated? Yes No \(\frac{\fir\fir\f{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\
	ceived appropriate for analysis? Yes \( \section \) No Comments:
	ible headspace? Yes No NA
Comments	
*** ** .	cked: Yes No NA pH appropriate? Yes No NA
Water samples: pH che Comments:	
Comments:	Witness: Cooler Inspected by:

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Neimberg



# Apex Laboratories, LLC

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

Thursday, April 21, 2022
Pete Kingston
Farallon-Seattle
1809 7th Ave Suite 1111
Seattle, WA 98101

RE: A2D0542 - Seattle 3 - 1071-010

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 A2D0542, which was received by the laboratory on 4/13/2022 at 7:50:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <a href="mailto:pnerenberg@apex-labs.com">pnerenberg@apex-labs.com</a>, or by phone at 503-718-2323.

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

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1

4.0 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

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Philip Nerenberg, Lab Director

Philip Nevenberg

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-SeattleProject:Seattle 31809 7th Ave Suite 1111Project Number:1071-010Seattle, WA 98101Project Manager:Pete Kingston

Report ID: A2D0542 - 04 21 22 1807

# ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-19-041122	A2D0542-01	Water	04/11/22 10:05	04/13/22 07:50
MW-20-041122	A2D0542-02	Water	04/11/22 10:40	04/13/22 07:50
MW-21-041122	A2D0542-03	Water	04/11/22 12:00	04/13/22 07:50

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Philip Neimberg

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-SeattleProject:Seattle 31809 7th Ave Suite 1111Project Number:1071-010Seattle, WA 98101Project Manager:Pete Kingston

Report ID: A2D0542 - 04 21 22 1807

# ANALYTICAL SAMPLE RESULTS

	Die	esel and/or O	il Hydrocar	bons by NWTPI	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-19-041122 (A2D0542-01)				Matrix: Wate	er	Batch:	22D0650	
Diesel	174	87.0	174	ug/L	1	04/19/22 02:41	NWTPH-Dx LL	
Oil	ND	174	348	ug/L	1	04/19/22 02:41	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Recov	ery: 110 %	Limits: 50-150 %	5 1	04/19/22 02:41	NWTPH-Dx LL	
MW-20-041122 (A2D0542-02)				Matrix: Wate	er	Batch:	22D0650	
Diesel	109	85.1	170	ug/L	1	04/19/22 03:03	NWTPH-Dx LL	J
Oil	ND	170	340	ug/L	1	04/19/22 03:03	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Recov	ery: 102 %	Limits: 50-150 %	5 1	04/19/22 03:03	NWTPH-Dx LL	
MW-21-041122 (A2D0542-03)				Matrix: Wate	er	Batch:	22D0650	
Diesel	100	87.0	174	ug/L	1	04/19/22 03:26	NWTPH-Dx LL	J
Oil	ND	174	348	ug/L	1	04/19/22 03:26	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		Recov	ery: 109 %	Limits: 50-150 %	<i>1</i>	04/19/22 03:26	NWTPH-Dx LL	

Apex Laboratories

Philip Nevenberg

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-SeattleProject:Seattle 31809 7th Ave Suite 1111Project Number:1071-010Seattle, WA 98101Project Manager:Pete Kingston

Report ID: A2D0542 - 04 21 22 1807

# QUALITY CONTROL (QC) SAMPLE RESULTS

		D	iesel and/d	or Oil Hyd	Irocarbon	s by NWT	PH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22D0650 - EPA 3510C (	Fuels/Acid	l Ext.)					Wa	ter				
Blank (22D0650-BLK1)			Prepared	1: 04/18/22	11:01 Anal	yzed: 04/18/	22 21:50					
NWTPH-Dx LL												
Diesel	ND	36.4	72.7	ug/L	1							
Oil	ND	72.7	145	ug/L	1							
Surr: o-Terphenyl (Surr)		Recov	very: 109 %	Limits: 50	0-150 %	Dilu	tion: 1x					
LCS (22D0650-BS1)			Prepared	d: 04/18/22	11:01 Anal	yzed: 04/18/	22 22:12					
NWTPH-Dx LL												
Diesel	518	40.0	80.0	ug/L	1	500		104	36-132%			
Surr: o-Terphenyl (Surr)		Reco	very: 114%	Limits: 50	0-150 %	Dilu	tion: 1x					
LCS Dup (22D0650-BSD1)			Prepared	1: 04/18/22	11:01 Anal	yzed: 04/18/	22 22:35					<b>Q</b> -1
NWTPH-Dx LL												
Diesel	503	40.0	80.0	ug/L	1	500		101	36-132%	3	30%	
Surr: o-Terphenyl (Surr)		Recon	very: 110 %	Limits: 50	0-150 %	Dilu	tion: 1x					

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

 Farallon-Seattle
 Project:
 Seattle 3

 1809 7th Ave Suite 1111
 Project Number:
 1071-010
 Report ID:

 Seattle, WA 98101
 Project Manager:
 Pete Kingston
 A2D0542 - 04 21 22 1807

# SAMPLE PREPARATION INFORMATION

		Diesel and	d/or Oil Hydrocarbor	ns by NWTPH-Dx			
Prep: EPA 3510C (F	uels/Acid Ext.)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22D0650							
A2D0542-01	Water	NWTPH-Dx LL	04/11/22 10:05	04/18/22 12:30	460mL/2mL	1000 mL/2 mL	2.17
A2D0542-02	Water	NWTPH-Dx LL	04/11/22 10:40	04/18/22 12:30	470mL/2mL	1000mL/2mL	2.13
A2D0542-03	Water	NWTPH-Dx LL	04/11/22 12:00	04/18/22 12:30	460mL/2mL	1000 mL/2 mL	2.17

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# **QUALIFIER DEFINITIONS**

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

# **Apex Laboratories**

- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-19 Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.

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# Apex Laboratories, LLC

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Farallon-SeattleProject:Seattle 31809 7th Ave Suite 1111Project Number:1071-010Report ID:Seattle, WA 98101Project Manager:Pete KingstonA2D0542 - 04 21 22 1807

#### 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) may not be included in this report. Please request a Full QC report if this data is required.

#### **Miscellaneous Notes:**

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

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

#### Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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Philip Nerenberg, Lab Director

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# REPORTING NOTES AND CONVENTIONS (Cont.):

#### Blanks (Cont.):

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

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

## **Preparation Notes:**

#### Mixed Matrix Samples:

#### Water Samples:

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

#### Soil and Sediment Samples:

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

# **Sampling and Preservation Notes:**

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

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

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

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

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# Apex Laboratories, LLC

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 A2D0542 - 04 21 22 1807

#### 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 <u>exception</u> 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.

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Philip Nerenberg, Lab Director

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Seattle, WA 98101

# ANALYTICAL REPORT

# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-SeattleProject:Seattle 31809 7th Ave Suite 1111Project Number:1071-010

Project Number: 1071-010 Report ID:
Project Manager: Pete Kingston A2D0542 - 04 21 22 1807

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Site Location: OR (WA) CA AK ID	/B ID #	V.I.E	ME	DE CONTAINERS	мльн-нсір	xa-H9TV	VTPH-G <sub>K</sub>	X3.18 09	60 RBDM VOCs	90 AOC* Enii Eist 90 Halo AOC*	SHV4 WIS 04	70 Semi-Vols Full List	87 BCB8	12 Pest	RA Metals (8)	ority Metals (13)	5b, As, Ba, Be, Cd, Ca, Co, Cu, Fe, Pb, Hg, Mg, Mo, Ni, K, Se, Ag, Na, Ti,	AL DISS, TCLP	(8) alataM ¶J				avi
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Philip Nevenberg

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# **Apex Laboratories, LLC**

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Farallon-SeattleProject:Seattle 31809 7th Ave Suite 1111Project Number:1071-010Seattle, WA 98101Project Manager:Pete Kingston

Report ID: A2D0542 - 04 21 22 1807

	Element WO#: A2_DOS472
Project/Project #:	Sattle 3
Delivery Info:	
Date/time received: 4/13/	/22 @ 75D By: MD
Delivered by: ApexC	Client ESS FedEx UPS Swift Senvoy SDS Other Evergre
Cooler Inspection Da	ste/time inspected: 4/13/22@ 750 By: MS
Chain of Custody included	4? Ves V No Custody seals? Ves No X
Signed/dated by client?	Yes No No
Signed/dated by Apex?	Yes No
	Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler #7
Temperature (°C)	40
Received on ice? (Y/N)	4
Temp. blanks? (Y/N)	4
Ice type: (Gel/Real/Other)	Deal
Condition:	Good
Out of temperature sample Sample Inspection: Dat	es form initiated? Yes/No te/time inspected: 4 4 22 @ 1407 By: HAS
	✓ No Comments:
All samples intact? Yes > Bottle labels/COCs agree?	∠ No Comments:
All samples intact? Yes > Bottle labels/COCs agree?	× No Comments:
All samples intact? Yes > Bottle labels/COCs agree? COC/container discrepance	∠ No Comments:
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All samples intact? Yes   Bottle labels/COCs agree?  COC/container discrepance Containers/volumes receiv  Do VOA vials have visible Comments  Water samples: pH checke	No Comments:

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