



November 7, 2024

Sandy Smith
Cleanup Project Manager
Toxics Cleanup Program – Southwest Regional Office
Washington State Department of Ecology
PO Box 47775
Olympia, Washington 98504-7775

**RE: CONFIRMATIONAL GROUNDWATER MONITORING AND
SAMPLING STATUS REPORT – 2023
FORMER EVERGREEN FUEL FACILITY
661 EAST PINE STREET, SHELTON, WASHINGTON
FARALLON PN: 863-001**

Dear Sandy Smith:

Farallon Consulting, L.L.C. (Farallon) has prepared this letter report to present the results from the December 2023 confirmational groundwater monitoring and sampling event conducted at the former Evergreen Fuel Facility at 661 East Pine Street in Shelton, Washington (herein referred to as the Site) (Figure 1). As detailed in the requirements set forth under Exhibit C, Scope of Work and Schedule, Task 1, Section q-2 and Task 4 of Agreed Order No. DE 3937 (AO) entered into by the Washington State Department of Ecology (Ecology) and Chevron U.S.A. Inc. and C.C. Cole and Sons, Inc., confirmational monitoring and reporting was required to be conducted on a semi-annual basis (January to June and July to December). However, based on the stability of historical groundwater data at monitoring well MW-10, and detailed in the email regarding Evergreen Fuels-Expectation Letter (DSARS 113119) dated June 27, 2022 from Sandy Smith of Ecology to Javan Ruark of Farallon, Ecology agreed to eliminate the semiannual confirmational groundwater monitoring and sampling event but retain the December annual events.

The December 2023 confirmational groundwater monitoring and sampling was conducted to evaluate whether constituents of concern (COCs), which consist of total petroleum hydrocarbons as gasoline-range organics (GRO), as diesel-range organics (DRO), and as oil-range organics (ORO); and benzene, toluene, ethylbenzene, and xylenes (BTEX), have attenuated to concentrations less than Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A cleanup levels identified in the Cleanup Action Plan (CAP). The sampling event was limited to analysis of DRO and ORO with and without silica gel cleanup procedure based on approval from Ecology in 2014 via the comments letter cited below and



the historical analytical data that has indicated that GRO and BTEX have not been detected in groundwater at concentrations exceeding the MTCA cleanup levels since 2007. The confirmational groundwater sampling was conducted in compliance with the AO and its exhibits, including the CAP. Ecology executed informal amendments to the groundwater sampling requirements via letter on two occasions:

- Letter regarding Transmittal of Ecology Comments on Request for No Further Action Determination and Revised Groundwater Monitoring Status Report – May 2013, Evergreen Fuel Facility, 661 East Pine Street, Shelton Washington, Agreed Order No. DE 3937 dated March 10, 2014, Facility/Site ID No. 6773108, Cleanup Site ID No. 4306, dated August 25, 2014 from Scott Rose of Ecology to Peter Jewett of Farallon (Ecology Comments Letter); and
- Email regarding Evergreen Fuels Monitoring dated August 6, 2015 from Jason Landskron of Ecology to Javan Ruark of Farallon (Ecology Email), detailing the required decommissioning of monitoring wells MW-5 and MW-6 based on historical concentrations of COCs not exceeding laboratory practical quantitation limits (PQLs).

This report includes a summary of the Site background information, details of the confirmational groundwater monitoring and sampling, a discussion of the sampling results, and conclusions.

SITE BACKGROUND

The cleanup action was completed pursuant to MTCA under the AO that was entered into by Ecology and potentially liable persons Chevron U.S.A. Inc. and C.C. Cole and Sons, Inc. The cleanup action was completed in accordance with the scope of work documented in Ecology's CAP, which was an exhibit to the AO. Details regarding the cleanup action activities are presented in the *Cleanup Action Summary Report, December 2006 to June 2007, Evergreen Fuel Facility, 661 East Pine Street, Shelton, Washington* dated July 30, 2007 prepared by Farallon. A general description of the cleanup action activities pertinent to the ongoing confirmational groundwater monitoring being conducted is provided below.

Cleanup action activities completed in January 2007 included excavation and disposal at a licensed disposal facility of 7,508 tons of soil containing COCs, which consist of GRO, DRO, ORO, and BTEX, at concentrations exceeding the cleanup levels in the CAP. The excavation areas were backfilled with quarry spalls to above the water table at a depth of approximately 3 feet below ground surface. A total of 4,000 pounds of Advanced Oxygen Release Compound manufactured by Regenesys, Inc. of San Clemente, California was mixed with the



quarry spalls used for backfill beneath the water table prior to placement, to enhance aerobic biodegradation of residual COCs in saturated soil and groundwater. Confirmational groundwater monitoring and sampling was initiated in April 2007 to document the effects of the source removal action and ongoing biodegradation of residual COCs in groundwater. The Site is currently not paved and is used as a parking lot for the SYC.

Confirmational groundwater monitoring and sampling conducted from 2007 to 2013 indicated that source removal and oxygen release compound treatment had resulted in a significant reduction of COCs, with overall decreasing to stable conditions throughout the Site. DRO continued to be detected at concentrations exceeding the MTCA Method A cleanup level in six of eight groundwater samples collected from monitoring well MW-10 between 2007 and 2013.

Farallon submitted the letter regarding Request for No Further Action Determination, Evergreen Fuel Facility, 661 East Pine Street, Shelton, Washington dated March 10, 2014 from Javan Ruark and Peter Jewett to Dominick Reale of Ecology (Request Letter). In its response to the Request Letter and as detailed in the Ecology Comments Letter, Ecology indicated that additional performance soil and confirmational groundwater monitoring and sampling were required to receive a No Further Action determination and closure of the AO requirements for the Site. Ecology indicated in its response to the Request Letter that confirmational groundwater monitoring would be altered, consistent with MTCA, with the goal to achieve compliance for soil. The amended performance soil and confirmational groundwater monitoring and sampling required by Ecology consisted of the following:

- Collecting additional soil samples at locations where residual COCs were left in-place, to determine whether current concentrations were less than MTCA Method A cleanup levels for protection of groundwater. If concentrations of residual COCs still exceeded MTCA Method A cleanup levels, the locations with the highest concentrations of DRO were to be used to develop Site-specific Method B cleanup levels for direct contact and continued protection of groundwater.
- Performing semiannual confirmational groundwater monitoring and sampling at existing Site monitoring wells until MTCA Method A cleanup levels had been achieved and maintained for 1 year at all monitoring wells required to be sampled, as detailed in the AO. Once groundwater analytical results indicated that COCs were less than MTCA Method A cleanup levels for 1 year, four consecutive quarters of confirmational groundwater monitoring and sampling were to be conducted to demonstrate that



MTCA Method A cleanup levels for groundwater had been achieved for the Site. Neither of these requirements have been attained for DRO at monitoring well MW-10.

Ecology subsequently provided additional details regarding confirmational groundwater monitoring and sampling to occur at the Site in August 2015. The details included:

- Confirmational groundwater monitoring and sampling were to be conducted in accordance with the AO, and would include monitoring wells MW-8 through MW-10; and
- Monitoring wells MW-5 and MW-6, which were covered during re-grading activities conducted in the Site parking lot, were to be located and decommissioned in accordance with Chapter 173-160 of the Washington Administrative Code.

Monitoring well decommissioning activities were conducted in December 2017. The results from the confirmational groundwater sampling conducted in 2019 indicated that further confirmational groundwater monitoring and sampling at the Site was necessary pursuant to the AO and subsequent Ecology communications.

On June 26, 2021, Ecology requested that groundwater samples collected from monitoring wells MW-9 and MW-10 be analyzed using the silica gel cleanup procedure. The purposes of the additional analysis were to gather supportive information for Ecology's update of the Northwest Total Petroleum Hydrocarbons-Dx method analysis, and to evaluate whether DRO detected in groundwater was associated with petroleum hydrocarbons or due to polar metabolites resulting from biodegradation and/or naturally occurring organic materials. Details of the Ecology request were provided in the email regarding Evergreen Fuels Shelton dated June 16, 2021, from Charles San Juan of Ecology to Javan Ruark of Farallon.

Confirmational groundwater sampling has continued on a periodic basis to assess stability of the COCs in groundwater and evaluate whether further action may be required to protect human health or the environment.

CONFIRMATIONAL GROUNDWATER MONITORING AND SAMPLING

A confirmational groundwater monitoring and sampling event was conducted on December 13, 2023, at monitoring wells MW-8 through MW-10 (Figure 2). Confirmational groundwater monitoring and sampling included measuring the depth to groundwater and collecting groundwater samples from monitoring wells MW-8 through MW-10 for laboratory analysis. Upon Farallon's arrival at the Site, monitoring wells MW-8 through MW-10 were opened, and



the water level was permitted to equilibrate with atmospheric pressure for a minimum of 15 minutes before groundwater levels in the wells were measured. Groundwater levels were measured to an accuracy of 0.01 foot using an electronic water-level meter. The monitoring well MW-9 water level could not be gauged as the water level meter was obstructed.

Monitoring wells MW-8 through MW-10 were purged and sampled using a peristaltic pump and dedicated polyethylene tubing at a flow rate of 120 milliliters per minute. The tubing intake was placed approximately 2 to 3 feet below the top of the water table in each monitoring well. During purging, water quality was monitored using a YSI water-quality meter equipped with a flow-through cell. The water-quality parameters monitored and recorded consisted of temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Each monitoring well was purged until the temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential parameters stabilized.

Following purging, groundwater samples were collected directly from the pump outlet tubing located upstream of the flow-through cell, and placed directly into laboratory-prepared sample containers. The containers were placed on ice in a cooler and transported under standard chain-of-custody protocols to OnSite Environmental Inc. of Redmond, Washington for laboratory analysis for DRO and ORO by Northwest Method NWTPH-Dx with and without the silica gel cleanup procedure, for GRO by Northwest Method NWTPH-Gx and for BTEX by EPA Method 8260D.

The silica gel cleanup procedure is being used to evaluate the nature of detections of DRO/ORO. Silica gel is used by the laboratory to remove both polar metabolites and naturally occurring biogenic organic compounds. Polar metabolites result from the degradation of petroleum hydrocarbons, primarily from biodegradation processes in the subsurface. Biogenic organic compounds include naturally occurring organic materials typically associated with degradation of plant-based materials and can exist in groundwater as particulate/colloidal matter or as dissolved matter. The silica gel cleanup procedure is indiscriminate in nature and removes both the polar metabolites and biogenic organic compounds, which are non-toxic. Evaluation of whether the extracted materials are polar metabolites versus biogenic organic compounds is being performed as a component of other work being conducted at the Site.

Purge water generated during the confirmational groundwater monitoring and sampling event was placed into a labeled 55-gallon steel drum and stored on the Site.



RESULTS

The results from the field activities and the laboratory analytical results for the confirmational groundwater monitoring and sampling event conducted on December 13, 2023 are presented below. Historical and current groundwater-level measurements and elevations are summarized in Table 1. Groundwater elevation contours for the confirmational groundwater monitoring are shown on Figure 3. Groundwater analytical results are summarized in Table 2 and shown on Figure 4. Chart 1 depicts the trends in concentrations of DRO and groundwater elevations at monitoring well MW-10. Groundwater geochemical parameters are summarized in Table 3. The laboratory analytical report is provided in Attachment A.

The December 13, 2023 groundwater elevation data indicated a southeastern groundwater flow direction toward Oakland Bay, with an average horizontal hydraulic gradient of 0.01 foot per foot. (Figure 3). Groundwater levels were measured following a high tide at 7:32 a.m. with a maximum daytime height of 15.42 feet mean lower low water according to National Ocean Service tidal prediction data accessed on March 14, 2024.¹

Groundwater analytical results for monitoring well MW-10 were as follows:

- DRO and ORO were detected at concentrations exceeding the MTCA Method A cleanup level without the silica gel cleanup procedure (Table 2; Figure 4). Neither DRO nor ORO was detected with the silica gel cleanup procedure at concentrations exceeding laboratory PQLs (Table 2; Figure 4).
- GRO and BTEX were not detected at concentrations exceeding laboratory PQLs.

Groundwater analytical results for monitoring wells MW-8 and MW-9 were as follows:

- Neither DRO nor ORO was detected at a concentration exceeding the MTCA Method A cleanup level, either with or without the silica gel cleanup procedure, during the event (Table 2; Figure 4).
- GRO and BTEX were not detected at concentrations exceeding laboratory PQLs.

¹ Tide Predictions - NOAA Tides & Currents



CONCLUSIONS

Concentrations of GRO and BTEX compounds were less than the laboratory PQLs. These compounds were analyzed in groundwater again due to the detections of these compounds in soil during a performance soil sampling event conducted in October 2022 to evaluate current conditions at the Site. The continued absence of GRO and BTEX compounds in groundwater despite the MTCA exceedances of these compounds in saturated soil indicate that desorption to groundwater is either not occurring or the rate of biodegradation exceeds the rate of desorption. The current groundwater data supports that the net environmental benefits regarding protection of human health and the environment associated with excavation of the low concentrations of GRO and BTEX compounds in soil present at depths of approximately 10 to 15 feet below ground surface proximate to the existing bulkhead are disproportionate to the probable risks to the environment (newly constructed beachfront/sediment/surface water) posed by conducting deep excavation work beneath the existing bulkhead depth in a saturated soil matrix with substantial groundwater reserves present in the existing quarry spall backfill used following completion of the 2007 cleanup activities.

Concentrations of DRO and ORO at monitoring wells MW-8 and MW-9 were less than MTCA Method A cleanup levels, which is consistent with historical trends for concentrations of DRO and ORO detected at these monitoring wells.

DRO and ORO concentrations without the silica gel cleanup procedure at monitoring well MW-10 have been historically higher in the wetter seasonal conditions, correlating with seasonal high groundwater elevation data (Chart 1). This outcome is representative of the historical trends at monitoring well MW-10 and indicated that soil with residual concentrations of DRO/ORO and/or related polar metabolites resulting from ongoing biodegradation, are present in a smear zone and leach from soil to groundwater when groundwater elevations are highest. However, the concentration of DRO at MW-10 in December 2023 was the lowest since 2010 (Table 2). This likely suggests that attenuation of the polar metabolites is occurring.

Groundwater analytical results from the December 2023 confirmational groundwater monitoring and sampling event indicate that DRO/ORO concentrations do not exceed MTCA Method A cleanup levels when using the silica gel cleanup procedure. Polar metabolites appear to be the primary and sole source of the DRO/ORO detections at monitoring well



MW-10 based prior evaluation of naturally occurring organic materials in the soil matrix, which were negligible.

According to the *Guidance for Use of Silica Gel Cleanup in Washington State, Toxics Cleanup Program, Washington State Department of Ecology, Olympia, Washington*, Publication No. 22-09-059 dated September 2022 and revised November 2023 (SGC Guidance), Ecology has recommended using the following cleanup levels for polar metabolites at sites with detectable concentrations of petroleum hydrocarbons:

- Petroleum cleanup level DRO with silica gel cleanup (SGC) = 500 micrograms per liter; and
- Polar organic cleanup level² = 500 micrograms per liter.

As previously discussed, DRO was not detected at monitoring well MW-10 when analyzed using SGC. DRO polar metabolites were detected at a concentration of 840 micrograms per liter at MW-10; however, which exceeded the polar organic cleanup level of 500 micrograms per liter. The results of the performance soil sampling event conducted in October 2022 to evaluate current conditions at the Site indicated that neither DRO nor ORO were present in soil at concentrations exceeding the MTCA cleanup levels established for the Site. Therefore, the polar metabolites may be associated with groundwater in the vicinity of monitoring well MW-10 since this monitoring well is located within the 2007 excavation area.

Further actions, if necessary, would be completed in conjunction with or following a planned shoreline improvement project being conducted by the current site owner. Ecology has indicated that additional remedial actions will need to be consistent with technologies evaluated in the FS and described in the CAP, which include soil excavation and enhanced natural attenuation..

² The polar organic concentration is defined as DRO without SGC less DRO with SGC.



CLOSING

Farallon trusts that this report provides sufficient information for your needs. Please contact either of the undersigned at (425) 295-0800 if you have questions or require additional information.

Sincerely,

Farallon Consulting, L.L.C.

Elsa Ticken, P.E.
Senior Engineer

Jeffrey Kaspar, L.G., L.H.G.
Principal Geologist

Attachments: Figure 1, *Site Vicinity Map*
Figure 2, *Site Plan*
Figure 3, *Groundwater Elevation Contours and Flow Direction, December 13, 2023*
Figure 4, *Groundwater Analytical Data*
Table 1, *Summary of Groundwater Elevation Data*
Table 2, *Summary of Groundwater Analytical Results*
Table 3, *Summary of Groundwater Geochemical Parameters*
Chart 1, *DRO Concentrations in Groundwater versus Groundwater Elevation Data Trends for Monitoring Well MW-10*
Attachment A, *Laboratory Analytical Reports*

cc: Allyson Bazan, Hillis Clark Martin & Peterson P.S.
Jacob Blair, Hillis Clark Martin & Peterson P.S.
William Joyce, Hillis Clark Martin & Peterson P.S.
Dave Mariano, Shelton Yacht Club
Brandon Palmer, Port of Shelton
Nathan Blomgren, Chevron U.S.A. Inc
Cheryl Cameron, Chevron U.S.A. Inc.
Robert Goodman, Rogers Joseph O'Donnell
Jacob Lubarsky, Rogers Joseph O'Donnell

ET/JK:cm



LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon reviewed certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy. Should the information upon which Farallon relied prove to be inaccurate, Farallon may revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

Farallon does not guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions are as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Chevron U.S.A. Inc. and CC Cole and Sons, Inc. No other warranties, representations, or certifications are made.

FIGURES

CONFIRMATIONAL GROUNDWATER MONITORING AND SAMPLING
STATUS REPORT – 2023

Former Evergreen Fuel Facility
661 East Pine Street
Shelton, Washington

Farallon PN: 863-001



REFERENCE: 7.5 MINUTE USGS QUADRANGLE SHELTON, WASHINGTON, DATED 2011



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FIGURE 1
SITE VICINITY MAP
FORMER EVERGREEN FUEL FACILITY
661 EAST PINE STREET
SHELTON, WASHINGTON

FARALLON PN: 863-001

Drawn By: jones

Checked By: JR

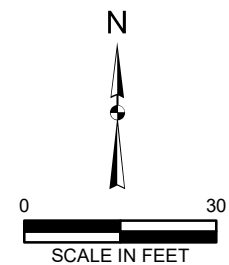
Date: 7/13/2023

Disc Reference:

Document Path: Q:\Projects\863 Former Evergreen Fuel\Mapfiles\GW_Monitoring_2022 Revised\Figure-01_SiteVicinity.mxd



- LEGEND**
- MONITORING WELL (FARALLON 2007)
 - ⊕ DECOMMISSIONED MONITORING WELL (FARALLON 2017)
 - UTILITY POLE
 - ⊙ FIRE HYDRANT
 - BULKHEAD RETAINING WALL
 - APPROXIMATE SITE BOUNDARY



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FIGURE 2

SITE PLAN

FORMER EVERGREEN FUEL FACILITY

661 EAST PINE STREET

SHELTON, WASHINGTON

Drawn By: jjones

Checked By: JR

Date: 7/13/2023

Disc Reference:

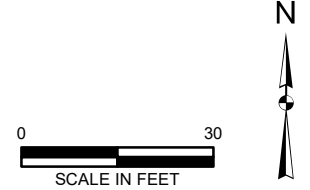
FARALLON PN: 863-001

Document Path: Q:\Projects\863 Former Evergreen Fuel\Mapfiles\GW Monitoring 2022 Revised\Figure-02_SitePlan.mxd



LEGEND
 MONITORING WELL (FARALLON 2007)
 APPROXIMATE SITE BOUNDARY

13.00 --- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
 GROUNDWATER FLOW DIRECTION
 (13.60) GROUNDWATER ELEVATION (12/13/2023)
 NM GROUNDWATER ELEVATION NOT MEASURED

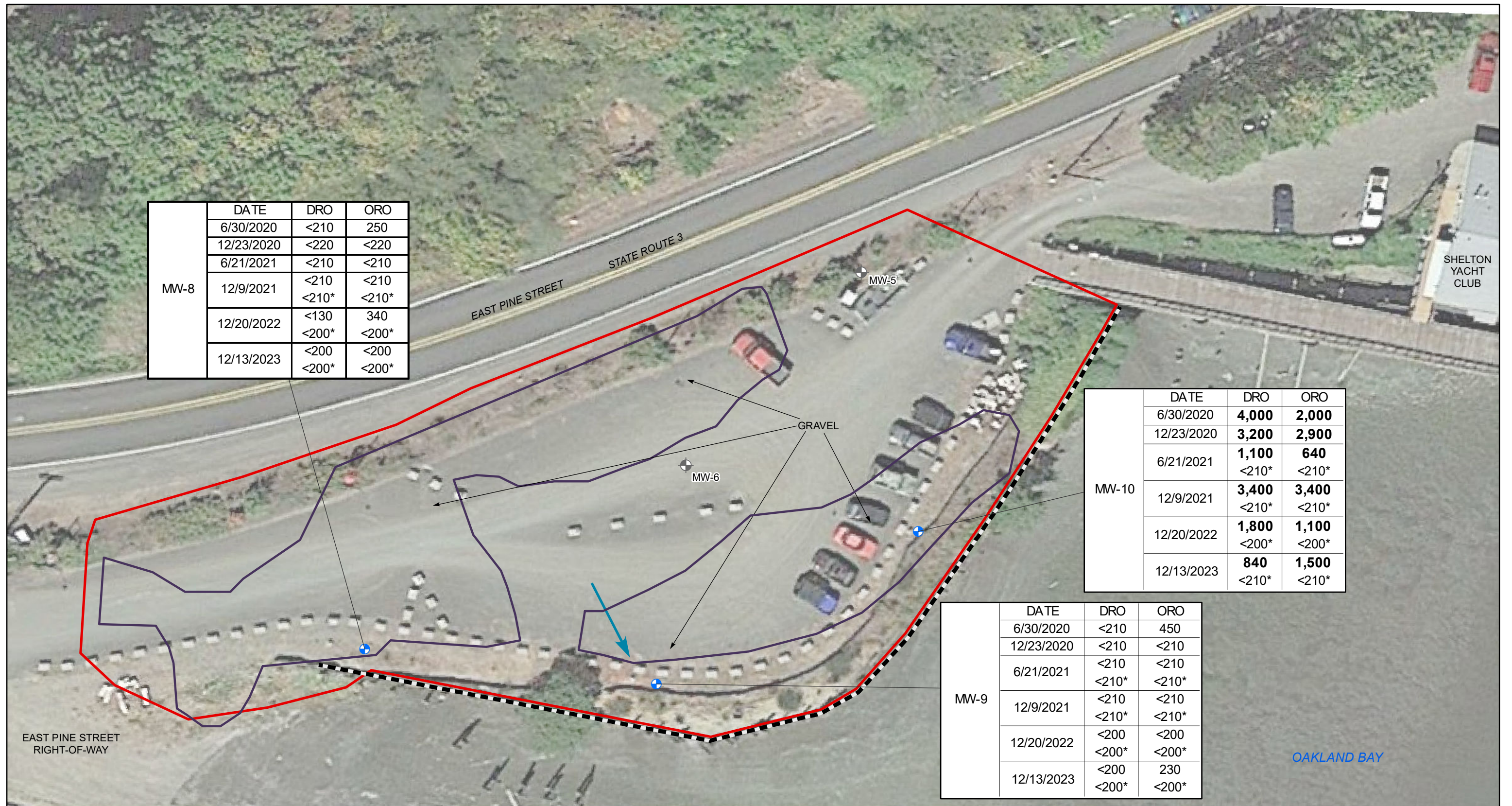


ALL LOCATIONS ARE APPROXIMATE. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

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FIGURE 3
 GROUNDWATER ELEVATION CONTOURS AND FLOW DIRECTION
 DECEMBER 13, 2023
 FORMER EVERGREEN FUEL FACILITY
 661 EAST PINE STREET
 SHELTON, WASHINGTON
 FARALLON PN: 863-001



	DATE	DRO	ORO
MW-8	6/30/2020	<210	250
	12/23/2020	<220	<220
	6/21/2021	<210	<210
	12/9/2021	<210	<210
		<210*	<210*
	12/20/2022	<130	340
		<200*	<200*
12/13/2023	<200	<200	
	<200*	<200*	

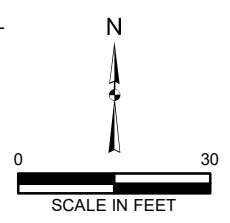
	DATE	DRO	ORO
MW-10	6/30/2020	4,000	2,000
	12/23/2020	3,200	2,900
	6/21/2021	1,100	640
		<210*	<210*
	12/9/2021	3,400	3,400
		<210*	<210*
	12/20/2022	1,800	1,100
	<200*	<200*	
12/13/2023	840	1,500	
	<210*	<210*	

	DATE	DRO	ORO
MW-9	6/30/2020	<210	450
	12/23/2020	<210	<210
	6/21/2021	<210	<210
		<210*	<210*
	12/9/2021	<210	<210
		<210*	<210*
	12/20/2022	<200	<200
	<200*	<200*	
12/13/2023	<200	230	
	<200*	<200*	

- LEGEND**
- MONITORING WELL (FARALLON 2007)
 - DECOMMISSIONED MONITORING WELL (FARALLON 2017)
 - ESTIMATED GROUNDWATER FLOW DIRECTION
 - BULKHEAD RETAINING WALL
 - ESTIMATED LIMITS OF FORMER EXCAVATION AREA
 - APPROXIMATE SITE BOUNDARY

NOTES:
 UNITS ARE IN MICROGRAMS PER LITER (µg/L).
BOLD = DENOTES CONCENTRATIONS IN GROUNDWATER THAT EXCEEDED THE WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION (MTCA) CLEANUP LEVEL
 < = DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED.
 * = SILICA GEL CLEANUP PROCESS APPLIED TO SAMPLE PRIOR TO ANALYSIS.
 DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS.
 ORO = TPH AS OIL-RANGE ORGANICS

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Drawn By: Imurock Checked By: ET Date: 3/15/2024

FIGURE 4

GROUNDWATER ANALYTICAL DATA
 FORMER EVERGREEN FUEL FACILITY
 661 EAST PINE STREET
 SHELTON, WASHINGTON

FARALLON PN: 863-001

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TABLES

CONFIRMATIONAL GROUNDWATER MONITORING AND SAMPLING STATUS REPORT – 2023

**Former Evergreen Fuel Facility
661 East Pine Street
Shelton, Washington**

Farallon PN: 863-001

Table 1
Summary of Groundwater Elevation Data
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Well Identification	Well Screened Interval (feet bgs) ¹	Top of Monument Elevation ²	Top of Casing Elevation ²	Date Measured	to Water (feet) ³	Groundwater Elevation ²
MW-5	5-15	16.94	16.46	4/5/2007	8.13	8.33
				7/11/2007	7.4	9.06
				10/11/2007	6.57	9.89
				1/11/2008	7.19	9.27
				5/13/2008	NM	NA
				10/1/2009	NM	NA
				1/19/2010	NM	NA
				5/1/2013	NM	NA
				2/16/2016	NM	NA
				8/23/2016	NM	NA
				8/10/2017	7.81	8.65
Decommissioned 12/14/2017						
MW-6	3-12	14.93	14.47	4/5/2007	6.24	8.23
				7/11/2007	5.29	9.18
				10/11/2007	4.4	10.07
				1/11/2008	5.1	9.37
				5/13/2008	NM	NA
				10/1/2009	NM	NA
				1/19/2010	NM	NA
				5/1/2013	NM	NA
				2/16/2016	NM	NA
				8/23/2016	NM	NA
				8/10/2017	6.43	8.04
Decommissioned 12/14/2017						
MW-8	3-15	18.85	18.48	4/5/2007	6.1	12.38
				7/11/2007	5.18	13.3
				10/11/2007	4.86	13.62
				1/11/2008	5.08	13.4
				5/13/2008	9.27	9.21
				10/1/2009	6.62	11.86
				1/19/2010	4.60	13.88
				5/1/2013	5.35	13.13
				2/16/2016	4.75	13.73
				8/23/2016	5.84	12.64
				8/10/2017	5.57	12.91
				12/14/2017	5.22	13.26
				6/28/2018	5.42	13.06
				12/27/2018	4.91	13.57
				6/27/2019	5.45	13.03
				12/5/2019	5.25	13.23
				6/30/2020	5.32	13.16
				12/23/2020	4.75	13.73
6/21/2021	5.35	13.13				
12/9/2021	4.82	13.66				
12/13/2021	4.51	13.97				
12/20/2022	5.20	13.28				
12/13/2023	4.88	13.60				

Table 1
Summary of Groundwater Elevation Data
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Well Identification	Well Screened Interval (feet bgs) ¹	Top of Monument Elevation ²	Top of Casing Elevation ²	Date Measured	to Water (feet) ³	Groundwater Elevation²
MW-9	3-15	19.25	18.93	4/5/2007	10.05	8.88
				7/11/2007	9.50	9.43
				10/11/2007	7.50	11.43
				1/11/2008	7.68	11.25
				5/13/2008	5.78	13.15
				10/1/2009	10.21	8.72
				1/19/2010	6.99	11.94
				5/1/2013	8.84	10.09
				2/16/2016	8.3	10.63
				8/23/2016	9.94	8.99
				8/10/2017	9.14	9.79
				12/14/2017	8.62	10.31
				6/28/2018	9.29	9.64
				12/27/2018	7.82	11.11
				6/27/2019	9.49	9.44
				12/5/2019	8.65	10.28
				6/30/2020	8.68	10.25
				12/23/2020	8.50	10.43
6/21/2021	8.50	10.43				
12/13/2021	8.31	10.62				
12/20/2022	8.16	10.77				
12/13/2023	NM	NA				

Table 1
Summary of Groundwater Elevation Data
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Well Identification	Well Screened Interval (feet bgs) ¹	Top of Monument Elevation ²	Top of Casing Elevation ²	Date Measured	to Water (feet) ³	Groundwater Elevation ²
MW-10	2-17	20.26	19.93	4/5/2007	9.14	10.79
				7/11/2007	8.65	11.28
				10/11/2007	7.00	12.93
				1/11/2008	7.73	12.20
				5/13/2008	8.82	11.11
				10/1/2009	10.5	9.43
				1/19/2010	7.13	12.80
				5/1/2013	8.43	11.50
				2/16/2016	7.89	12.04
				8/23/2016	10.51	9.42
				8/10/2017	10.17	9.76
				12/14/2017	9.00	10.93
				6/28/2018	10.32	9.61
				12/27/2018	8.27	11.66
				6/27/2019	10.40	9.53
				12/5/2019	9.64	10.29
				6/30/2020	9.81	10.12
				12/23/2020	8.48	11.45
6/21/2021	9.42	10.51				
12/9/2021	8.55	11.38				
12/13/2021	8.35	11.58				
12/20/2022	8.90	11.03				
12/13/2023	8.57	11.36				

NOTES:

¹Screened interval in feet below ground surface (bgs).

NA = not available

²Elevations relative to vertical survey datum that is based on a mean lower low water of 44.11 feet and referenced from a Washington State Department of Transportation brass set in a monument with a published elevation of 47.58 feet North American Vertical Datum.

NM = not measured

³Depth to water measured in feet below the top of the well casing.

Table 2
Summary of Groundwater Analytical Results
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Sample Identification	Sample Location	Sample Date	Analytical Results (micrograms per liter)							
			GRO ¹	DRO ²	ORO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³	
MW5-040507	MW-5	4/5/2007	<100	<270	<430	<1.0	<1.0	<1.0	<1.0	
MW5-071107		7/11/2007	<100	<250	<400	<1.0	<1.0	<1.0	<1.0	
MW5-101107		10/11/2007	<100	<250	<400	<1.0	<1.0	<1.0	<1.0	
MW5-011108		1/11/2008	<100	<250	<400	<1.0	<1.0	<1.0	<1.0	
NS		5/13/2008	--	--	--	--	--	--	--	
NS		10/1/2009	--	--	--	--	--	--	--	
NS		1/19/2010	--	--	--	--	--	--	--	
NS		5/1/2013	--	--	--	--	--	--	--	
NS		2/16/2016	--	--	--	--	--	--	--	
NS		8/23/2016	--	--	--	--	--	--	--	
NS		8/10/2017	--	--	--	--	--	--	--	
NS		12/14/2017	Well Decommissioned 12/14/2017							
MW6-040507		MW-6	4/5/2007	<100	<260	<410	<1.0	<1.0	<1.0	<1.0
MW6-071107	7/11/2007		<100	<250	<400	<1.0	<1.0	<1.0	<1.0	
MW6-101107	10/11/2007		<400	<250	<400	<4.0	<4.0	<4.0	<4.0	
MW6-011108	1/11/2008		<100	<250	<410	<1.0	<1.0	<1.0	<1.0	
NS	5/13/2008		--	--	--	--	--	--	--	
NS	10/1/2009		--	--	--	--	--	--	--	
NS	1/19/2010		--	--	--	--	--	--	--	
NS	5/1/2013		--	--	--	--	--	--	--	
NS	2/16/2016		--	--	--	--	--	--	--	
NS	8/23/2016		--	--	--	--	--	--	--	
NS	8/10/2017		--	--	--	--	--	--	--	
NS	12/14/2017		Well Decommissioned 12/14/2017							
MW8-040507	MW-8		4/5/2007	190 ⁴	<250	<410	1.4	<1.0	<1.0	4.0
MW8-071107		7/11/2007	<100	<250	<400	2.6	<1.0	<1.0	<1.0	
MW8-101107		10/11/2007	<100	<250	<400	5.7	<1.0	<1.0	<1.0	
MW8-011108		1/11/2008	<100	<270	<440	<1.0	<1.0	<1.0	<1.0	
MW8-051308		5/13/2008	<100	<270	<430	2.7	<1.0	<1.0	<1.0	
MW8-100109		10/1/2009	--	<250	<400	1.4	--	--	--	
MW8-011910		1/19/2010	--	<260	<410	<1.0	--	--	--	
MW-8-050113		5/1/2013	<100	<250	<410	<1.0	<1.0	<1.0	<2.0	
MW-8-021616		2/16/2016	--	<260	<410	--	--	--	--	
MW-8-082316		8/23/2016	--	280	<410	--	--	--	--	
MW-8-081017		8/10/2017	--	<260	<410	--	--	--	--	
MW-8-121417		12/14/2017	--	<270	<440	--	--	--	--	
MW-8-062818		6/28/2018	--	<260	<410	--	--	--	--	
MW-8-122718		12/27/2018	--	<260	<410	--	--	--	--	
MW-8-062719		6/27/2019	--	<260	<410	--	--	--	--	
MW-8-120519		12/5/2019	--	<230	<240	--	--	--	--	
MW-8-063020		6/30/2020	--	<210	250	--	--	--	--	
MW-8-122320		12/23/2020	--	<220	<220	--	--	--	--	
MW-8-062121		6/21/2021	--	< 210	< 210	--	--	--	--	
MW-8-120921		12/9/2021	--	< 210 < 210 ⁵	< 210 < 210 ⁵	--	--	--	--	
MW-08-122022		12/20/2022	--	<130 <200 ⁵	340 <200 ⁵	--	--	--	--	
MW-8-121323		12/13/2023	< 100	<200 <200 ⁵	<200 <200 ⁵	<0.20	<1.0	<0.20	<0.60	
MTCA Method A Cleanup Levels⁶			800/1,000⁷	500	500	5	1,000	700	1,000	

Table 2
Summary of Groundwater Analytical Results
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Sample Identification	Sample Location	Sample Date	Analytical Results (micrograms per liter)						
			GRO ¹	DRO ²	ORO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
MW9-040507	MW-9	4/5/2007	<100	<260	<410	<1.0	<1.0	<1.0	<1.0
MW9-071107		7/11/2007	<100	<250	<400	<1.0	<1.0	<1.0	<1.0
MW9-101107		10/11/2007	<100	<250	<410	<1.0	<1.0	<1.0	<1.0
MW9-011108		1/11/2008	<100	<260	<410	<1.0	<1.0	<1.0	<1.0
MW-9-050113		5/1/2013	<100	310	<400	<1.0	<1.0	<1.0	<2.0
MW-9-021616		2/16/2016	--	<260	<410	--	--	--	--
MW-9-082316		8/23/2016	--	1,200	<550 U1	--	--	--	--
MW-9-081017		8/10/2017	--	420	<410	--	--	--	--
MW-9-121417		12/14/2017	--	<300	<480	--	--	--	--
MW-9-062818		6/28/2018	--	<260	<410	--	--	--	--
MW-9-122718		12/27/2018	--	280	<420	--	--	--	--
MW-9-062719		6/27/2019	--	<260	<410	--	--	--	--
MW-9-120519		12/5/2019	--	<200	<240	--	--	--	--
MW-9-063020		6/30/2020	--	<210	450	--	--	--	--
MW-9-122320		12/23/2020	--	<210	<210	--	--	--	--
MW-9-062121		6/21/2021	--	< 210	< 210	--	--	--	--
				< 210 ⁵	< 210 ⁵	--	--	--	--
MW-9-120921		12/9/2021	--	< 210	< 210	--	--	--	--
				< 210 ⁵	< 210 ⁵	--	--	--	--
MW-09-122022		12/20/2022	--	<200	<200	--	--	--	--
			<200 ⁵	<200 ⁵	--	--	--	--	
MW-9-121323	12/13/2023	< 100	<200	230	<0.20	<1.0	<0.20	<0.60	
			<200 ⁵	<200 ⁵	--	--	--	--	
MW10-040507	MW-10	4/5/2007	<400	1,000	<420	<4.0	<4.0	<4.0	<4.0
MW10-071107		7/11/2007	<100	580	<400	<1.0	<1.0	<1.0	<1.0
MW10-101107		10/11/2007	<400	590	<400	<4.0	<4.0	<4.0	<4.0
MW10-011108		1/11/2008	<100	<250	<410	<1.0	<1.0	<1.0	<1.0
MW10-051308		5/13/2008	220	620	<430	<1.0	<1.0	<1.0	<1.0
MW10-100109		10/1/2009	--	750	<410	<1.0	--	--	--
MW10-011910		1/19/2010	--	<260	<410	<1.0	--	--	--
MW-10-050113		5/1/2013	<100	1,700	<410	<1.0	<1.0	<1.0	<2.0
MW-10-021616		2/16/2016	--	3,500	<410	--	--	--	--
MW-10-021616		8/23/2016	--	1,900	<640 U1	--	--	--	--
MW-10-081017		8/10/2017	--	3,000	<580 U1	--	--	--	--
MW-10-121417		12/14/2017	--	4,600	<3,400 U1	--	--	--	--
MW-10-062818		6/28/2018	--	1,900	<520 U1	--	--	--	--
MW-10-122718		12/27/2018	--	2,100	<1,400 U1	--	--	--	--
MW-10-062719		6/27/2019	--	1,600	580 N	--	--	--	--
MW-10-120519		12/5/2019	--	6,300	3,100 N	--	--	--	--
MW-10-063020		6/30/2020	--	4,000	2,000	--	--	--	--
MW-10-122320		12/23/2020	--	3,200	2,900	--	--	--	--
MW-10-062121		6/21/2021	--	1,100	640	--	--	--	--
				< 210 ⁵	< 210 ⁵	--	--	--	--
MW-10-120921	12/9/2021	--	3,400	3,400	--	--	--	--	
			< 210 ⁵	< 210 ⁵	--	--	--	--	
MW-10-122022	12/20/2022	--	1,800	1,100	--	--	--	--	
			<200 ⁵	<200 ⁵	--	--	--	--	
MW-10-121323	12/13/2023	< 100	840	1,500	<0.20	<1.0	<0.20	<0.60	
			<210 ⁵	<210 ⁵	--	--	--	--	
MTCA Method A Cleanup Levels⁶			800	500	500	5	1,000	700	1,000

NOTES:

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

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

-- denotes sample not analyzed

¹Analyzed by Northwest Method NWTPH-Gx.

²Analyzed by Northwest Method NWTPH-Dx.

³Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B/8260D.

⁴Laboratory analytical report indicated gasoline results are being influenced by the presence of diesel.

⁵Analyzed by Northwest Method NWTPH-Dx with silica-gel cleanup procedure.

⁶Cleanup levels for the Site presented in the Draft Cleanup Action Plan dated July 18, 2006 that were based on the Washington State Model Toxics Control Act Cleanup Regulation (MTCA)

DRO = total petroleum hydrocarbons as diesel-range organics

GRO = total petroleum hydrocarbons as gasoline-range organics

N = hydrocarbons in the diesel range are impacting the oil result

ORO = total petroleum hydrocarbons as oil-range organics

U1 = the practical quantitation limit is elevated due to interferences present in the sample

Table 3
Summary of Groundwater Geochemical Parameters
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Well Identification	Sample Date	Geochemical Results				
		Temperature (°C)	Specific Conductance (mS/cm)	pH (pH units)	Dissolved Oxygen (mg/l)	Oxidation-Reduction Potential (mV)
MW-5	4/5/2007	12.4	0.131	6.12	0.65	471.1
	7/11/2007	19.65	0.147	4.77	1.03	413.2
	10/11/2007	14.96	0.143	6.74	0.91	-10.4
	1/11/2008	11.97	0.177	6.30	0.47	99.9
	5/13/2008	NS	NS	NS	NS	NS
	10/1/2009	NS	NS	NS	NS	NS
	1/19/2010	NS	NS	NS	NS	NS
	2/16/2016	NS	NS	NS	NS	NS
	8/23/2016	NS	NS	NS	NS	NS
	8/10/2017	NS	NS	NS	NS	NS
	12/14/2017	Well Decommissioned 12/14/2017				
MW-6	4/5/2007	11.3	0.393	6.00	0.49	428.2
	7/11/2007	19.25	0.421	4.33	0.94	381.8
	10/11/2007	13.75	0.322	6.77	0.78	-82.8
	1/11/2008	9.6	0.32	6.70	0.74	-35.5
	5/13/2008	NS	NS	NS	NS	NS
	10/1/2009	NS	NS	NS	NS	NS
	1/19/2010	NS	NS	NS	NS	NS
	2/16/2016	NS	NS	NS	NS	NS
	8/23/2016	NS	NS	NS	NS	NS
	8/10/2017	NS	NS	NS	NS	NS
	12/14/2017	Well Decommissioned 12/14/2017				
MW-8	4/5/2007	11.43	0.270	6.70	1.29	443.6
	7/11/2007	21.54	0.386	4.12	0.93	511.9
	10/11/2007	14.59	0.323	7.17	1.62	68.2
	1/11/2008	8.38	0.252	7.37	2.48	-30.4
	5/13/2008	12.1	0.346	7.05	0.98	-44.4
	10/1/2009	17.53	0.468	7.21	4.22	-76
	1/19/2010	9.66	0.12	6.97	6.7	49.7
	5/1/2013	14.83	0.204	6.22	2.06	-7
	2/16/2016	10.62	0.092	6.64	4.37	147
	8/23/2016	21.60	0.235	6.72	0.61	-26
	8/10/2017	21.4	0.180	6.71	0.43	-31.5
	12/14/2017	11.0	0.190	6.64	0.71	9.1
	6/28/2018	17.7	0.224	6.46	1.03	-1.9
	12/27/2018	9.6	0.12	7.2	4.75	120.7
	6/27/2019	15.1	0.266	6.39	1.23	48.1
	12/5/2019	11.7	0.271	6.44	3.26	-255.3
	6/30/2020	18.5	0.198	13.37*	0.26	-176.5
	12/23/2020	8.9	0.082	6.96	6.18	179.6
	6/21/2021	20.6	0.244	6.29	1.10	-54.8
	12/9/2021	10.0	0.191	6.55	1.15	123.6
12/20/2022	8.7	0.212	6.65	3.93	295.6	
12/13/2023	8.8	0.143	6.63	2.91	204.1	

Table 3
Summary of Groundwater Geochemical Parameters
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Well Identification	Sample Date	Geochemical Results				
		Temperature (°C)	Specific Conductance (mS/cm)	pH (pH units)	Dissolved Oxygen (mg/l)	Oxidation-Reduction Potential (mV)
MW-9	4/5/2007	12.44	0.361	6.12	3.57	478.6
	7/11/2007	21.25	0.56	4.64	3.41	420
	10/11/2007	15.11	0.326	6.57	6.4	79.8
	1/11/2008	8.66	0.129	7.25	1.92	69.5
	5/13/2008	NS	NS	NS	NS	NS
	10/1/2009	NS	NS	NS	NS	NS
	1/19/2010	NS	NS	NS	NS	NS
	5/1/2013	16.20	0.135	6.25	0.89	-25
	2/16/2016	10.61	0.150	6.59	2.23	85
	8/23/2016	21.80	0.860	6.78	0.54	-40
	8/10/2017	19.4	0.248	6.61	0.41	-44.9
	12/14/2017	11.8	0.194	6.74	0.51	-47.3
	6/28/2018	16.2	0.331	6.63	1.14	-10.4
	12/27/2018	10.4	0.188	6.91	4.09	132.9
	6/27/2019	15.0	0.359	6.52	1.71	65.2
	12/5/2019	11.9	0.346	6.62	3.61	-218.7
	6/30/2020	16.0	0.315	12.35*	0.32	-182.2
	12/23/2020	9.9	0.119	6.99	4.94	178.7
	6/21/2021	19.7	0.281	6.68	2.90	-30.6
12/9/2021	11.3	0.198	6.94	5.01	182.5	
12/20/2022	9.8	0.299	7.06	6.34	315.2	
12/13/2023	10.3	0.249	6.82	6.98	232.2	

Table 3
Summary of Groundwater Geochemical Parameters
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

Well Identification	Sample Date	Geochemical Results				
		Temperature (°C)	Specific Conductance (mS/cm)	pH (pH units)	Dissolved Oxygen (mg/l)	Oxidation-Reduction Potential (mV)
MW-10	4/5/2007	11.84	0.252	5.87	0.96	480.3
	7/11/2007	20.54	0.316	5.77	0.73	175
	10/11/2007	15.07	0.309	6.56	0.48	-12.7
	1/11/2008	9.4	0.141	6.66	6.13	109.8
	5/13/2008	12.21	0.209	6.72	1.28	-57.8
	10/1/2009	17.16	0.379	6.80	0.07	-91.8
	1/19/2010	10.65	0.108	6.72	1.95	23.2
	5/1/2013	13.99	0.133	5.99	1.00	-16
	2/16/2016	11.33	0.274	6.24	0.88	44
	8/23/2016	18.31	0.343	6.69	0.79	-70
	8/10/2017	18.0	0.201	6.70	0.28	-96.5
	12/14/2017	12.1	0.269	6.26	0.29	-108.9
	6/28/2018	15.5	0.277	6.70	0.9	-77.5
	12/27/2018	11.6	0.427	6.17	2.32	167.6
	6/27/2019	14.0	0.339	6.51	1.49	-15.2
	12/5/2019	13.3	0.536	6.20	2.67	-234.2
	6/30/2020	16.0	0.282	12.22*	0.24	-174.0
	12/23/2020	10.7	0.223	6.11	0.97	121.1
6/21/2021	20.7	0.273	6.22	1.03	-56.6	
12/9/2021	12.2	0.329	5.93	0.33	77.8	
12/20/2022	10.1	0.279	6.34	1.17	191.3	
12/13/2023	10.9	0.177	5.78	1.94	239.4	

NOTES:

°C = degrees Celsius

* = instrument error

mg/l = milligrams per liter

mS/cm = milliSiemens per centimeter

mV = millivolts

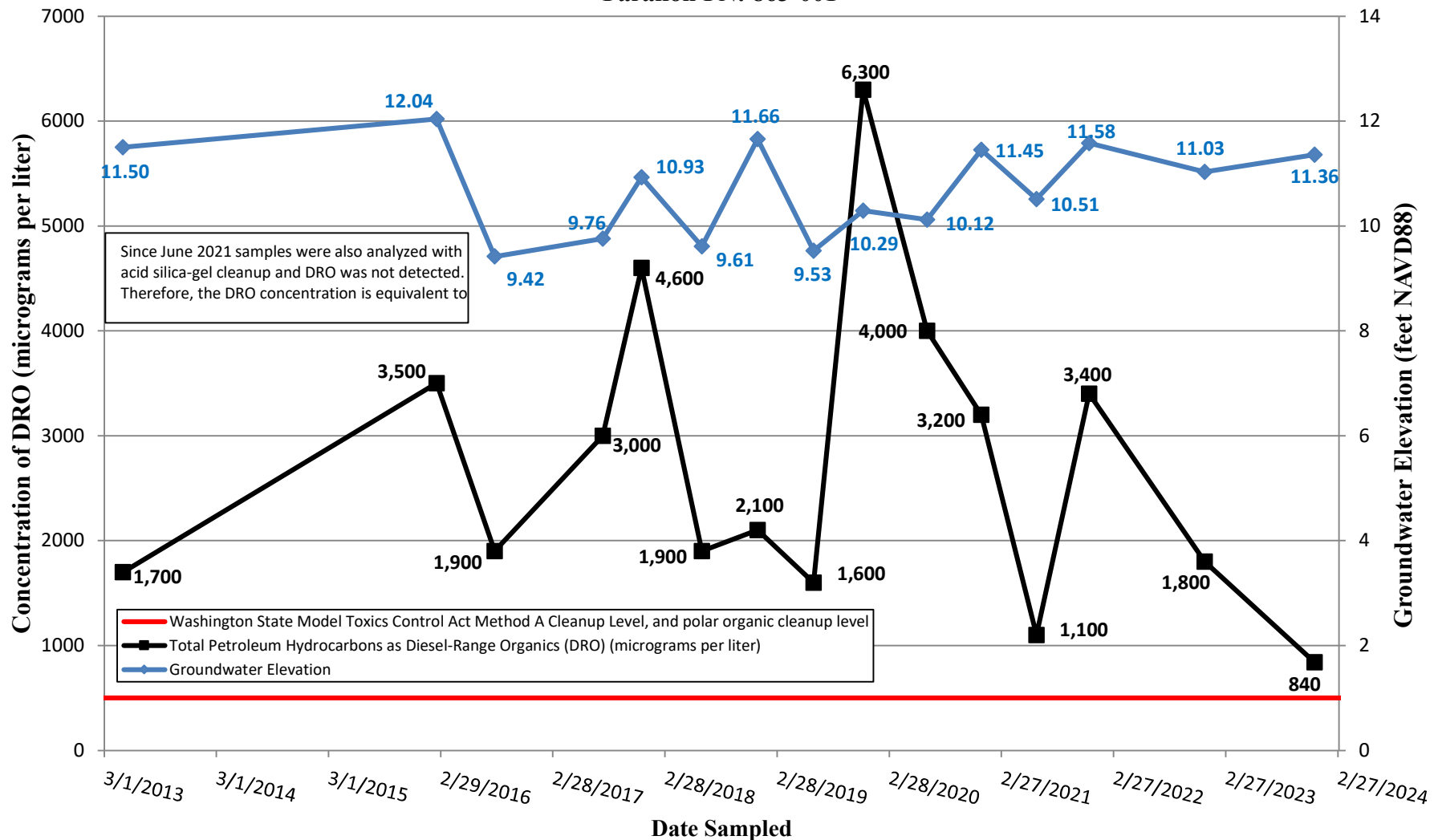
NS = not sampled

CHART

CONFIRMATIONAL GROUNDWATER MONITORING AND SAMPLING
STATUS REPORT – 2023
Former Evergreen Fuel Facility
661 East Pine Street
Shelton, Washington

Farallon PN: 863-001

Chart 1
DRO Concentrations in Groundwater versus Groundwater Elevation Data Trends for Monitoring Well
MW-10
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001



**ATTACHMENT A
LABORATORY ANALYTICAL REPORTS**

CONFIRMATIONAL GROUNDWATER MONITORING AND SAMPLING
STATUS REPORT – 2023
Former Evergreen Fuel Facility
661 East Pine Street
Shelton, Washington

Farallon PN: 863-001



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

December 21, 2023

Stuart Brown
Farallon Consulting
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 863-001
Laboratory Reference No. 2312-187

Dear Stuart:

Enclosed are the analytical results and associated quality control data for samples submitted on December 13, 2023.

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", with a long horizontal flourish extending to the right.

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 21, 2023
Samples Submitted: December 13, 2023
Laboratory Reference: 2312-187
Project: 863-001

Case Narrative

Samples were collected on December 13, 2023 and received by the laboratory on December 13, 2023. 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. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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 21, 2023
 Samples Submitted: December 13, 2023
 Laboratory Reference: 2312-187
 Project: 863-001

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-8-121323					
Laboratory ID:	12-187-01					
Gasoline	ND	100	NWTPH-Gx	12-14-23	12-14-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	80	65-122				
Client ID:	MW-9-121323					
Laboratory ID:	12-187-02					
Gasoline	ND	100	NWTPH-Gx	12-14-23	12-14-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	79	65-122				
Client ID:	MW-10-121323					
Laboratory ID:	12-187-03					
Gasoline	ND	100	NWTPH-Gx	12-14-23	12-14-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	80	65-122				



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 Samples Submitted: December 13, 2023
 Laboratory Reference: 2312-187
 Project: 863-001

**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:	MB1214W2					
Gasoline	ND	100	NWTPH-Gx	12-14-23	12-14-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>80</i>	<i>65-122</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	12-170-02							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				79	79	65-122		



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VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-8-121323						
Laboratory ID: 12-187-01						
Benzene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
Toluene	ND	1.0	EPA 8260D	12-18-23	12-18-23	
Ethylbenzene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
m,p-Xylene	ND	0.40	EPA 8260D	12-18-23	12-18-23	
o-Xylene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>115</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				
Client ID: MW-9-121323						
Laboratory ID: 12-187-02						
Benzene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
Toluene	ND	1.0	EPA 8260D	12-18-23	12-18-23	
Ethylbenzene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
m,p-Xylene	ND	0.40	EPA 8260D	12-18-23	12-18-23	
o-Xylene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				
Client ID: MW-10-121323						
Laboratory ID: 12-187-03						
Benzene	ND	0.20	EPA 8260D	12-20-23	12-20-23	
Toluene	ND	1.0	EPA 8260D	12-20-23	12-20-23	
Ethylbenzene	ND	0.20	EPA 8260D	12-20-23	12-20-23	
m,p-Xylene	ND	0.40	EPA 8260D	12-20-23	12-20-23	
o-Xylene	ND	0.20	EPA 8260D	12-20-23	12-20-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				



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 Project: 863-001

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1218W1					
Benzene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
Toluene	ND	1.0	EPA 8260D	12-18-23	12-18-23	
Ethylbenzene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
m,p-Xylene	ND	0.40	EPA 8260D	12-18-23	12-18-23	
o-Xylene	ND	0.20	EPA 8260D	12-18-23	12-18-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				
Laboratory ID:	MB1220W1					
Benzene	ND	0.20	EPA 8260D	12-20-23	12-20-23	
Toluene	ND	1.0	EPA 8260D	12-20-23	12-20-23	
Ethylbenzene	ND	0.20	EPA 8260D	12-20-23	12-20-23	
m,p-Xylene	ND	0.40	EPA 8260D	12-20-23	12-20-23	
o-Xylene	ND	0.20	EPA 8260D	12-20-23	12-20-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



Date of Report: December 21, 2023
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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limits	Limit		
SPIKE BLANKS										
Laboratory ID:	SB1218W1									
	SB	SBD	SB	SBD	SB	SBD				
Benzene	9.10	9.95	10.0	10.0	91	100	80-121	9	16	
Toluene	9.44	9.81	10.0	10.0	94	98	80-120	4	18	
Ethylbenzene	9.67	10.1	10.0	10.0	97	101	80-125	4	18	
m,p-Xylene	20.0	20.7	20.0	20.0	100	104	80-127	3	18	
o-Xylene	9.65	10.0	10.0	10.0	97	100	80-126	4	18	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					100	106	75-127			
<i>Toluene-d8</i>					100	100	80-127			
<i>4-Bromofluorobenzene</i>					103	104	78-125			
Laboratory ID:	SB1220W1									
	SB	SBD	SB	SBD	SB	SBD				
Benzene	9.61	10.1	10.0	10.0	96	101	80-121	5	16	
Toluene	9.79	10.3	10.0	10.0	98	103	80-120	5	18	
Ethylbenzene	9.53	10.2	10.0	10.0	95	102	80-125	7	18	
m,p-Xylene	19.5	20.7	20.0	20.0	98	104	80-127	6	18	
o-Xylene	9.77	10.3	10.0	10.0	98	103	80-126	5	18	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					100	105	75-127			
<i>Toluene-d8</i>					100	99	80-127			
<i>4-Bromofluorobenzene</i>					98	100	78-125			



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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-8-121323					
Laboratory ID:	12-187-01					
Diesel Range Organics	ND	0.20	NWTPH-Dx	12-14-23	12-14-23	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	12-14-23	12-14-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	74	50-150				

Client ID:	MW-8-121323					
Laboratory ID:	12-187-01					
Diesel Range Organics	ND	0.20	NWTPH-Dx	12-14-23	12-14-23	X2
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	12-14-23	12-14-23	X2
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				

Client ID:	MW-9-121323					
Laboratory ID:	12-187-02					
Diesel Range Organics	ND	0.20	NWTPH-Dx	12-14-23	12-15-23	
Lube Oil Range Organics	0.23	0.20	NWTPH-Dx	12-14-23	12-15-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

Client ID:	MW-9-121323					
Laboratory ID:	12-187-02					
Diesel Range Organics	ND	0.20	NWTPH-Dx	12-14-23	12-15-23	X2
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	12-14-23	12-15-23	X2
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Client ID:	MW-10-121323					
Laboratory ID:	12-187-03					
Diesel Range Organics	0.84	0.21	NWTPH-Dx	12-14-23	12-15-23	
Lube Oil Range Organics	1.5	0.21	NWTPH-Dx	12-14-23	12-15-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	61	50-150				

Client ID:	MW-10-121323					
Laboratory ID:	12-187-03					
Diesel Range Organics	ND	0.21	NWTPH-Dx	12-14-23	12-14-23	X2
Lube Oil Range Organics	ND	0.21	NWTPH-Dx	12-14-23	12-14-23	X2
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	71	50-150				



Date of Report: December 21, 2023
 Samples Submitted: December 13, 2023
 Laboratory Reference: 2312-187
 Project: 863-001

**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:	MB1214W1					
Diesel Range Organics	ND	0.15	NWTPH-Dx	12-14-23	12-14-23	
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	12-14-23	12-14-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				
Laboratory ID:	MB1214W1					
Diesel Range Organics	ND	0.15	NWTPH-Dx	12-14-23	12-14-23	X2
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	12-14-23	12-14-23	X2
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	107	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	12-170-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	40	
Lube Oil Range	ND	ND	NA	NA	NA	NA	40	
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				70	69	50-150		
Laboratory ID:	12-170-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	40	X2
Lube Oil Range	ND	ND	NA	NA	NA	NA	40	X2
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				78	74	50-150		





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.
 - X2 - Sample extract treated with a 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.
 - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Chain of Custody

Turnaround Request
(In working days)



(Check One)

- Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)

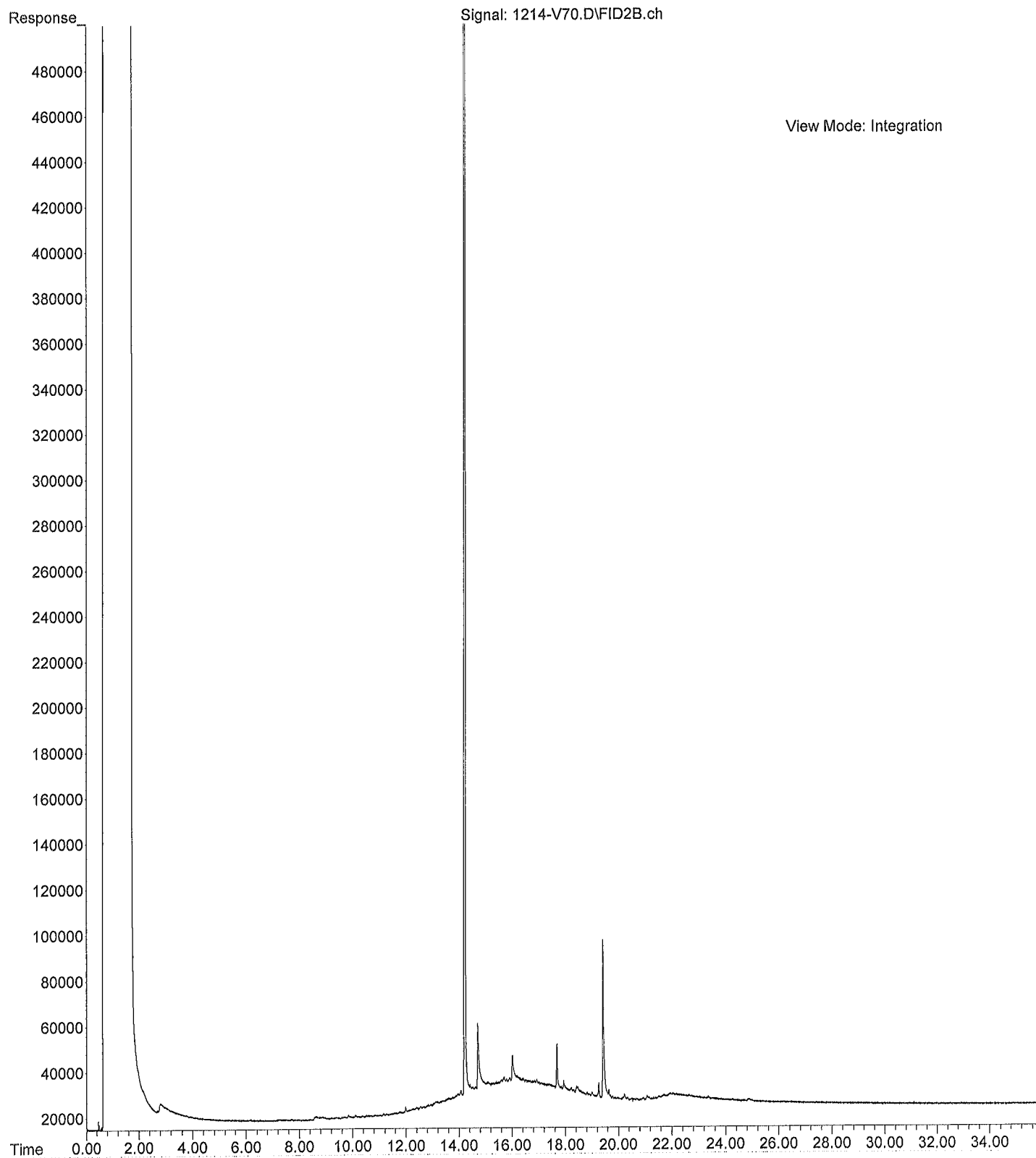
(other)

Laboratory Number: **12-187**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Analytical Parameters																						
						NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/>	NWTPH-Gx	NWTPH-Dx (SG Clean-up) <input checked="" type="checkbox"/>	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture					
1	MW-8-121323	12/13/23	1000	H2O	7	X	X	X																				
2	MW-9-121323	12/13/23	1045	L	L	X	X	X																				
3	MW-10-121323	12/13/23	1145	L	L	X	X	X																				

Company: Farallon Consulting		Signature: 	
Project Number: 863-001	Project Name: Former Evergreen Fuel Facility	Company: FEV	Signature: 
Project Manager: Steve Brown	Sampled by: Michael Ysagurre	Date: 12/13/23	Time: 1505
Comments/Special Instructions: NWTPH-Dx use silica gel cleanup procedure without & with			
Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>		Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>	
Reviewed/Date		Reviewed/Date	

File : C:\msdchem\2\data\V231214.SEC\1214-V70.D
Operator : LW
Acquired : 15 Dec 2023 1:38 using AcqMethod V230830F.M
Instrument : Vigo
Sample Name: 12-187-02 REX
Misc Info : RearSamp
Vial Number: 70



File : C:\msdchem\2\data\V231214.SEC\1214-V69.D
Operator : LW
Acquired : 15 Dec 2023 00:58 using AcqMethod V230830F.M
Instrument : Vigo
Sample Name: 12-187-03 REX
Misc Info : RearSamp
Vial Number: 69

