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DRAFT—Issued for Regulatory Review

June 22, 2018

Mr. Nicholas Acklam
VCP/II-SHA/LUST Unit Supervisor
Toxics Cleanup Program – Southwest Regional Office
Washington State Department of Ecology
PO Box 47775
Olympia, Washington 98504-7775

BY EMAIL AND MAIL

RE: COMPLIANCE GROUNDWATER MONITORING AND SAMPLING STATUS REPORT – 2017
FORMER EVERGREEN FUEL FACILITY
661 EAST PINE STREET
SHELTON, WASHINGTON
FARALLON PN: 863-001

Dear Mr. Acklam:

Farallon Consulting, L.L.C. (Farallon) has prepared this letter to present the results of the August and December 2017 compliance groundwater monitoring and sampling events and monitoring well decommissioning conducted at the former Evergreen Fuel Facility at 661 East Pine Street in Shelton, Washington (herein referred to as the Site) (Figure 1). The compliance groundwater monitoring and sampling was conducted to evaluate whether constituents of concern (COCs) had attenuated to concentrations less than their respective Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A cleanup levels to comply with the requirements set forth in the following:

- *Draft Cleanup Action Plan, Evergreen Fuel Facility, 661 East Pine Street, Shelton, Washington* dated July 18, 2006, prepared by Farallon (Draft Cleanup Action Plan);
- Agreed Order No. DE 3937 dated November 29, 2006, entered into by the Washington State Department of Ecology (Ecology) and Chevron U.S.A. Inc. and C.C. Cole and Sons, Inc. (AO);

- 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* dated August 25, 2014, from Mr. Scott Rose of Ecology to Mr. Peter Jewett of Farallon (Ecology Comments Letter); and
- Email regarding Evergreen Fuels Monitoring dated August 6, 2015, from Mr. Jason Landskron of Ecology to Mr. 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 the laboratory practical quantitation limits (PQLs).

This letter includes a summary of the Site background information, details of the monitoring well decommissioning and compliance groundwater monitoring and sampling, a discussion of the sampling results, and conclusions.

SITE BACKGROUND

A cleanup action was completed 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 the Draft Cleanup Action Plan, which was reviewed and approved by Ecology. Details regarding the cleanup 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 compliance groundwater monitoring being conducted follows.

Cleanup action activities completed in January 2007 included excavation and removal of 7,508 tons of soil containing COCs, which included total petroleum hydrocarbons as diesel-range organics (DRO), as gasoline-range organics, and as oil-range organics (ORO); and benzene, toluene, ethylbenzene, and xylenes (BTEX), at concentrations exceeding applicable regulatory

cleanup levels. The excavation areas were backfilled with quarry spalls to above the water table at approximately 3 feet below ground surface. A total of 4,000 pounds of Advanced Oxygen Release Compound manufactured by Regenesis 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. Following completion of the excavation portion of the cleanup action, an Environmental Covenant was placed on the Site prohibiting use of groundwater as a potable water source at the Site, and identifying areas where contaminated soil could not practicably be removed due to the presence of the bulkhead retaining wall, State Route 3, and utilities along State Route 3 (Figure 2). Compliance groundwater monitoring and sampling was initiated to document the effects of the source removal action and ongoing biodegradation of the residual COCs in groundwater. The Site currently is unpaved and used as a parking lot for the Port of Shelton Marina.

Compliance groundwater monitoring and sampling conducted from 2007 to 2013 indicate that source removal and oxygen release compound treatment has resulted in a reduction of COCs, with overall decreasing to stable conditions throughout the Site. However, DRO was detected at concentrations exceeding the MTCA Method A cleanup level in six of eight groundwater samples collected from monitoring well MW-10 during the 2007 to 2013 time period.

Farallon submitted a letter regarding Request for No Further Action Determination, Evergreen Fuel Facility, 661 East Pine Street, Shelton, Washington, from Messrs. Ruark and Jewett to Mr. Dominick Reale of Ecology on March 10, 2014 (Request Letter). In response to the Request Letter and as detailed in the Ecology Comments Letter, Ecology indicated that additional performance soil and compliance groundwater monitoring and sampling were required to receive a No Further Action determination for the Site. The additional performance soil and compliance groundwater monitoring and sampling required by Ecology included the following:

- Collecting additional soil samples at locations where residual COCs were left in-place to determine whether current concentrations are less than their respective MTCA Method A cleanup levels for protection of groundwater. If concentrations of residual COCs still

exceed MTCA Method A cleanup levels, the locations with the highest concentrations of DRO will be used to develop Site-specific Method B cleanup levels for direct contact and protection of groundwater.

- Performing semiannual groundwater monitoring and sampling at existing Site monitoring wells until MTCA Method A cleanup levels have been achieved and maintained for 1 year at all monitoring wells required to be sampled, as detailed in the AO. Once the groundwater analytical results indicate that COCs are less than MTCA Method A cleanup levels for 1 year, four consecutive quarters of groundwater monitoring and sampling will be conducted to demonstrate that MTCA Method A cleanup levels for groundwater have been achieved for the Site. Neither of these guidelines have been attained for DRO in monitoring well MW-10.

Ecology subsequently provided additional details regarding the compliance groundwater monitoring and sampling to occur at the Site. The details were provided in the Ecology Email and included the following:

- Compliance groundwater monitoring and sampling will be conducted in accordance the AO and will include monitoring wells MW-8 through MW-10; and
- Monitoring wells MW-5 and MW-6, which were covered during regrading activities for the parking lot at the Site, are to be located and decommissioned in accordance with Chapter 173-160 of the Washington Administrative Code (WAC 173-160).

The required compliance groundwater monitoring and sampling is described in the sections that follow. The required soil sampling work will not be required by Ecology as a component of the ongoing compliance groundwater monitoring and sampling until groundwater quality meets MTCA Method A cleanup levels for all COCs at the Site and confirmation of achieving the cleanup standards in the media of concern is necessary to support a closure request. Monitoring well decommissioning activities were conducted in December 2017 and are described herein.

MONITORING WELL DECOMMISSIONING

Farallon retained the services of Applied Professional Services, Inc. of North Bend, Washington to conduct a ground penetrating radar survey to locate monitoring wells MW-5 and MW-6 as part of the August 10, 2017 compliance groundwater monitoring and sampling event (Figure 2). After locating monitoring wells MW-5 and MW-6, the monitoring well monuments were opened to inspect the integrity of the monitoring well casings, caps, and monuments. The monitoring well casings, caps, and monuments appeared to be in good condition, with no observed structural damage. The monitoring well caps were removed, and the water level was permitted to equilibrate with atmospheric pressure for a minimum of 15 minutes before groundwater levels were measured to an accuracy of 0.01 foot using a water level meter. Groundwater levels and total well depth were measured to verify the integrity of the monitoring well casings and determine whether fine-grained sediment had accumulated at the base of the monitoring wells. Minimum accumulation of fine-grained sediment was observed in monitoring wells MW-5 and MW-6. Subsequently, monitoring wells MW-5 and MW-6 were decommissioned in accordance with WAC 173-160, *Minimum Standards for Construction and Maintenance of Wells* by a Washington State Licensed Driller from Cascade Environmental on December 14, 2017. The monitoring well casing was backfilled with bentonite chips from the total depth of the installation of the monitoring wells to the surface grade in accordance with WAC 173-160-381. The flush-mounted monitoring well monuments were filled with a concrete seal from the base of the flush-mounted monitoring well monument to the surface grade. The Resource Protection Well Report documenting the monitoring well decommissioning is provided in Attachment A.

COMPLIANCE GROUNDWATER MONITORING AND SAMPLING

Compliance groundwater monitoring and sampling events were conducted on August 10 and December 14, 2017 at monitoring wells MW-8 through MW-10 (Figure 2). The compliance groundwater monitoring included measuring the depth to groundwater at all accessible monitoring wells, and collecting groundwater samples for laboratory analysis from monitoring wells MW-8 through MW-10. 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 a water level meter.

Monitoring wells MW-8 through MW-10 were purged and sampled using a peristaltic pump and dedicated polyethylene tubing at flow rates ranging from 150 to 200 milliliters per minute. The tubing intake was placed at 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 included temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Each monitoring well was purged until water quality parameters temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential 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. Analysis for GRO and BTEX was not performed based on the following:

- Previous analytical data demonstrating that concentrations of GRO and/or BTEX were less than MTCA Method A cleanup levels in samples collected from the Site for four consecutive quarters; and
- Ecology did not request further analysis for GRO or BTEX in the Ecology Comments Letter.

Purge water generated during the compliance groundwater monitoring and sampling was placed into a labeled 55-gallon steel drum and stored on the Site. The purge water will be profiled and disposed of following the 2018 compliance groundwater monitoring and sampling events.

RESULTS

The results from the field activities and the laboratory analytical results for the compliance groundwater monitoring and sampling events conducted on August 10 and December 14, 2017 are presented below. The groundwater-level measurements and elevations are summarized in Table 1. Groundwater elevation contours for the August 10 and December 14, 2017 compliance groundwater monitoring events are shown on Figures 3 and 4, respectively. Groundwater analytical results are summarized in Table 2 and shown on Figure 5. Figures 6 and 7 depict the trends in concentrations of DRO and groundwater elevations at monitoring wells MW-9 and MW-10, respectively. The groundwater geochemical parameters are summarized in Table 3. The laboratory analytical reports are provided in Attachment B.

The August 10 and December 14, 2017 groundwater elevation data indicate a southeastern groundwater flow direction toward Oakland Bay (Figures 3 and 4). During the August 10, 2017 compliance groundwater monitoring event, groundwater levels were measured during a high tide cycle, which had a maximum height of 12.33 feet at 8:13 a.m. according to National Ocean Service tidal prediction data (https://tidesandcurrents.noaa.gov/noaatidepredictions.html?id=9446628&units=standard&bdate=20170810&edate=20170810&timezone=LST/LDT&clock=12hour&datum=MLLW&interval=hilo&action=dailychart) as accessed on February 26, 2018. During the December 14, 2018 compliance groundwater monitoring event, groundwater levels were measured during a low tide cycle, which had a minimum height of 5.57 feet at 10:15 a.m. according to the National Ocean Service tidal prediction data (https://tidesandcurrents.noaa.gov/noaatidepredictions.html?id=9446628&units=standard&bdate=20171214&edate=20171214&timezone=LST/LDT&clock=12hour&datum=MLLW&interval=hilo&action=dailychart) as accessed on February 26, 2018.

Groundwater analytical results for monitoring well MW-10 included the following:

- DRO was detected at concentrations exceeding the MTCA Method A cleanup level during the August 10 and December 14, 2017 compliance groundwater monitoring and sampling events (Table 2; Figure 5); and
- ORO was not detected at concentrations exceeding laboratory PQLs during the August 10 and December 14, 2017 compliance groundwater monitoring and sampling events.

Groundwater analytical results for monitoring well MW-9 included the following:

- ORO was detected at a concentration slightly exceeding the laboratory PQL, but is less than the MTCA Method A cleanup level for the August 10, 2017 compliance groundwater monitoring and sampling event (Table 2; Figure 5). ORO was not detected at concentrations exceeding laboratory PQLs during the December 14, 2017 sampling event; and
- DRO was not detected at concentrations exceeding laboratory PQLs in either sample collected during the August 10 and December 14, 2017 compliance groundwater monitoring and sampling events (Table 2; Figure 5).

Groundwater analytical results for monitoring well MW-8 included the following:

- DRO and ORO were not detected at concentrations exceeding laboratory PQLs during the August 10 and December 14, 2017 compliance groundwater monitoring and sampling events (Table 2; Figure 5).

CONCLUSIONS

DRO concentrations at monitoring well MW-9 were less than the MTCA Method A cleanup level, which is consistent with the historical DRO concentration trend at monitoring well MW-9 prior to the August 2016 compliance sampling event. The spike of DRO during the August 2016 compliance sampling event (Figure 6) appears to be an anomalous occurrence. There appears to be no direct correlation between groundwater elevation and DRO concentrations (Figure 6).

Continued monitoring will be conducted to evaluate the stability of DRO in groundwater in this area of the Site.

The highest detected concentrations of DRO at monitoring well MW-10 were observed during the February 2016 and December 2017 compliance groundwater monitoring and sampling events, which correlates with the seasonal high groundwater elevation data (Figure 7). The DRO concentration trend at monitoring well MW-10 indicates that concentrations of DRO historically have correlated with groundwater elevation data beginning in May 2013 (Figure 7), which is consistent with historical groundwater monitoring data indicating that shallow groundwater is not tidally influenced. Residual soil contamination proximate to monitoring well MW-10 that was left in-place following the cleanup activities may be desorbing from the soil matrix at times when groundwater is in direct contact with affected soil. The residual soil contamination likely is up- or cross-gradient of monitoring well MW-10. The prior remedial investigation work leading up to the cleanup action has indicated that DRO and associated compounds comprising the petroleum release(s) in the shallow groundwater do not pose a threat to human or marine receptors. The fluctuations in DRO concentrations observed do not require further action to protect human health and the environment. Continued monitoring will be required to evaluate the stability of DRO in groundwater in this area of the Site due to the increasing DRO concentration trends. Continued increasing DRO concentration trends may require further investigation if the condition persists.

The results from the compliance groundwater sampling conducted from 2007 to 2017 demonstrate that soil contamination left in-place is continuing to result in an exceedance of the MTCA Method A cleanup level for DRO in groundwater at monitoring well MW-10, and that further compliance groundwater monitoring and sampling is warranted at the Site to comply with the AO and evaluate whether further action is required to meet the cleanup action objectives.

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.

Javan Ruark, L.G. Associate Geologist	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, August 10, 2017*
Figure 4, *Groundwater Elevation Contours and Flow Direction, December 14, 2017*
Figure 5, *Groundwater Analytical Data*
Figure 6, *DRO Concentrations versus Groundwater Elevation Data Trends for Monitoring Well MW-9*
Figure 7, *DRO Concentrations versus Groundwater Elevation Data Trends for Monitoring Well MW-10*
Table 1, *Summary of Groundwater Elevation Data*
Table 2, *Summary of Groundwater Analytical Results*
Table 3, *Summary of Groundwater Geochemical Parameters*
Attachment A, Resource Protection Well Report
Attachment B, Laboratory Analytical Results

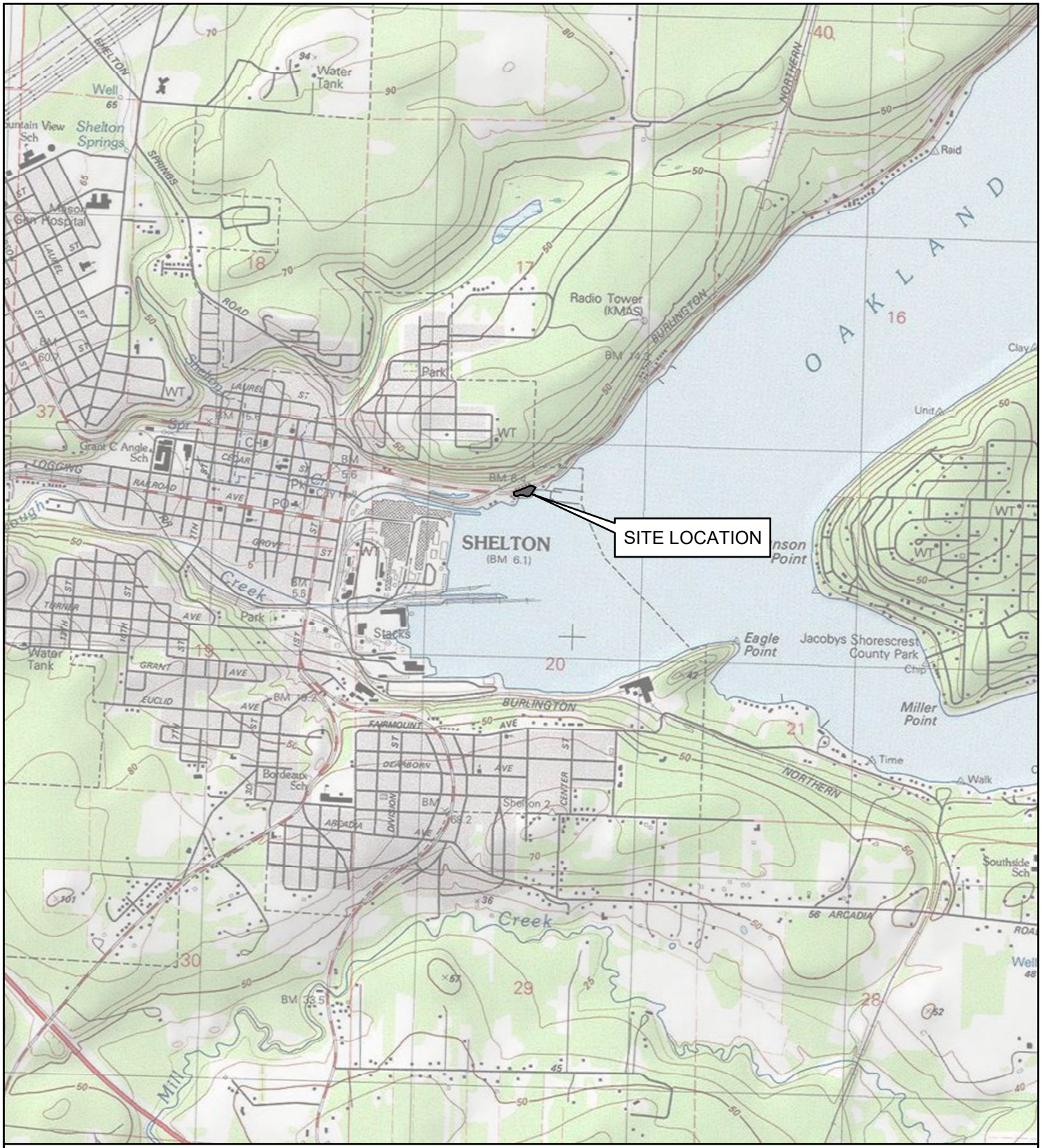
cc: Ian Sutton, Joyce Ziker Parkinson, PLLC (by email)
Brandon Palmer, Port of Shelton (by email)
Dan Carrier, Chevron U.S.A. Inc (by email)

JR/JK:cm

FIGURES

COMPLIANCE GROUNDWATER MONITORING AND SAMPLING
STATUS REPORT – 2017
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: sgaynier | Checked By: JR | Date: 6/6/2018 | Disc Reference:

Document Path: Q:\Projects\863 Former Evergreen Fuel\Figure 1.mxd

LEGEND

- UTILITY POLE
- FIRE HYRDANT
- MONITORING WELL (FARALLON 2005 AND 2007)
- DECOMMISSIONED MONITORING WELL (FARALLON 2017)
- BULKHEAD RETAINING WALL
- APPROXIMATE SITE BOUNDARY

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FIGURE 2

SITE PLAN
FORMER EVERGREEN FUEL FACILITY
661 EAST PINE STREET
SHELTON, WASHINGTON

FARALLON PN: 863-001

Drawn By: sgaynier | Checked By: JR | Date: 3/30/2018 | Disc Reference:

Document Path: Q:\Projects\863 Former Evergreen Fuel\Figure 2 SitePlan.mxd

EAST PINE STREET

STATE ROUTE 3

WOOD DOCK

SHELTON YACHT CLUB

UNPAVED

MW-5 [8.65]

MW-6 [8.04]

MW-8 (12.91)

MW-9 9.79

MW-10 (9.76)

12.0

11.0

10.0

EAST PINE STREET RIGHT-OF-WAY

OAKLAND BAY

LEGEND

- UTILITY POLE
- FIRE HYRDANT
- MONITORING WELL (FARALLON 2005 AND 2007)
- APPROXIMATE SITE BOUNDARY
- BULKHEAD RETAINING WALL
- FORMER EXCAVATION AREA
- RESIDUAL SOIL CONTAMINATION AREA
- (12.0) GROUNDWATER ELEVATION (08/10/2017)
- [8.65] GROUNDWATER ELEVATION NOT USED FOR CONTOURING
- 12.0 APPROXIMATE GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

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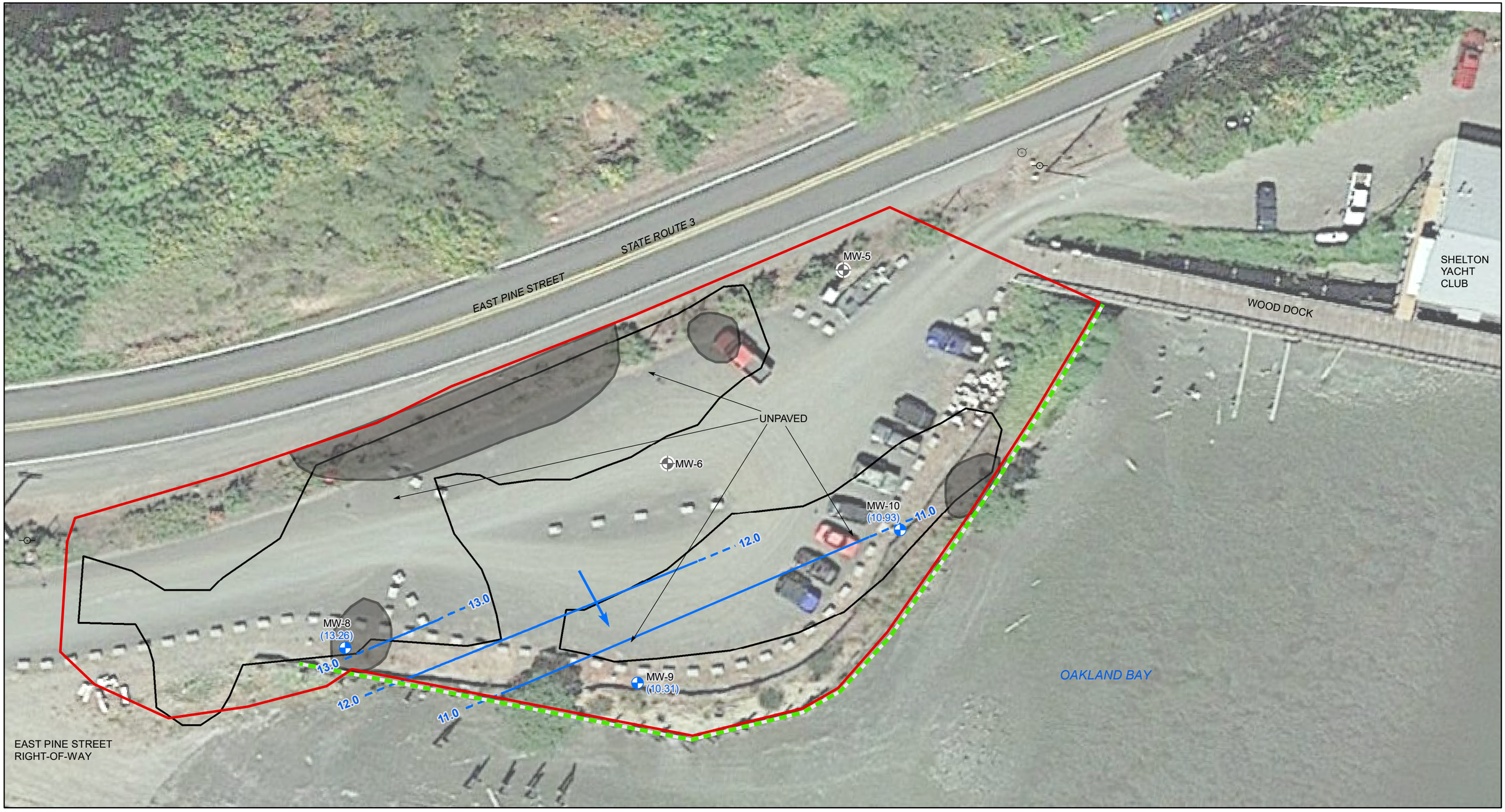
FIGURE 3

GROUNDWATER ELEVATION CONTOURS AND FLOW DIRECTION
AUGUST 10, 2017
FORMER EVERGREEN FUEL FACILITY
661 EAST PINE STREET
SHELTON, WASHINGTON
FARALLON PN: 863-001

Drawn By: sgaynier | Checked By: JR | Date: 3/30/2018 | Disc Reference:

Document Path: Q:\Projects\863 Former Evergreen Fuel\Figure_3_gwfeb2017.mxd



LEGEND

- UTILITY POLE
- FIRE HYRDANT
- MONITORING WELL (FARALLON 2005 AND 2007)
- DECOMMISSIONED MONITORING WELL (FARALLON 12/14/2017)
- APPROXIMATE SITE BOUNDARY
- BULKHEAD RETAINING WALL
- FORMER EXCAVATION AREA
- RESIDUAL SOIL CONTAMINATION AREA
- 12.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (12.0) GROUNDWATER ELEVATION (12/14/17)

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FIGURE 4

GROUNDWATER ELEVATION CONTOURS
AND FLOW DIRECTION
DECEMBER 14, 2017
FORMER EVERGREEN FUEL FACILITY
661 EAST PINE STREET
SHELTON, WASHINGTON

FARALLON PN: 863-001

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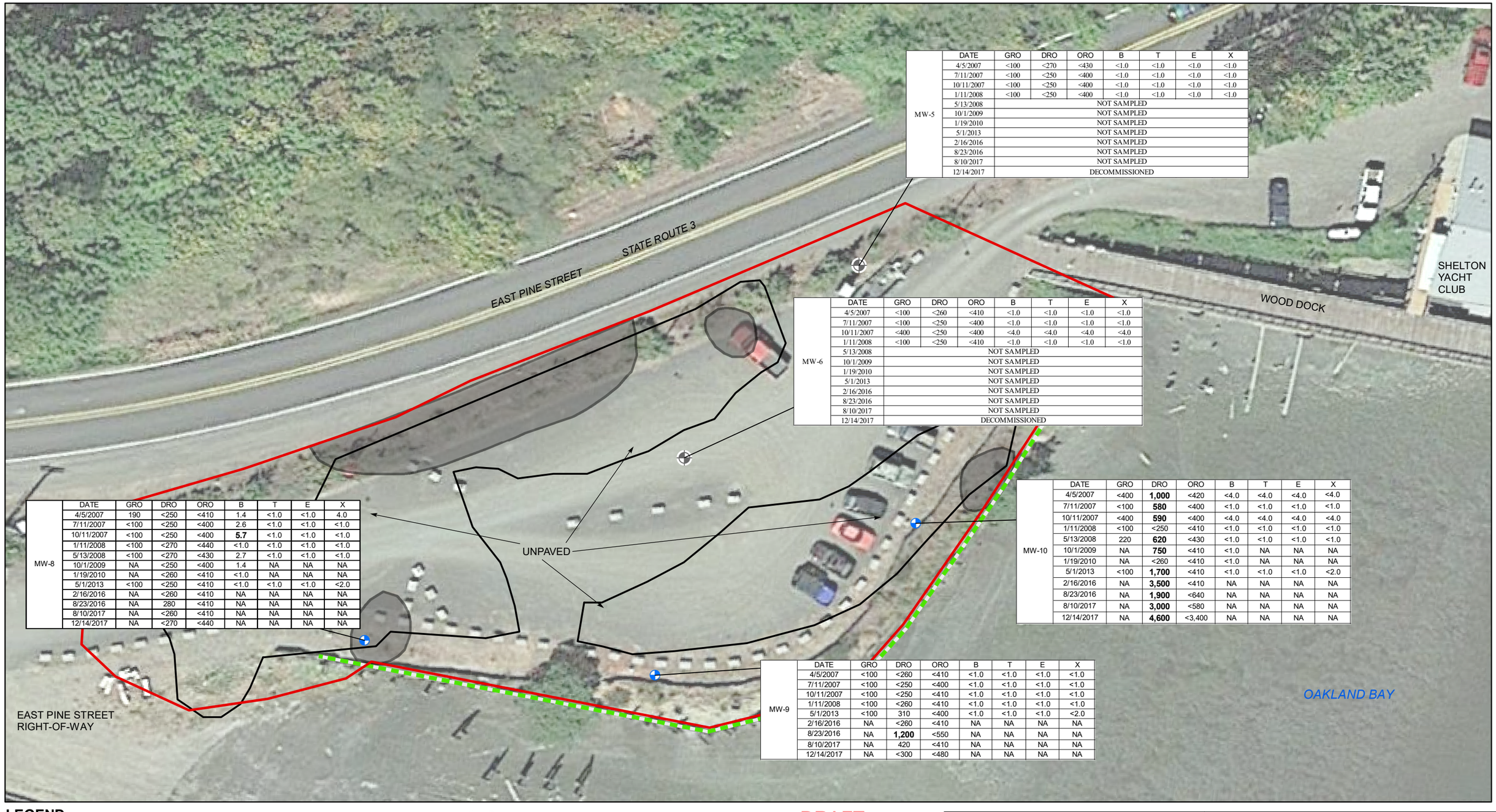
Document Path: Q:\Projects\863 Former Evergreen Fuel\Figure 4 GWDEC2017.mxd



	DATE	GRO	DRO	ORO	B	T	E	X
MW-5	4/5/2007	<100	<270	<430	<1.0	<1.0	<1.0	<1.0
	7/11/2007	<100	<250	<400	<1.0	<1.0	<1.0	<1.0
	10/11/2007	<100	<250	<400	<1.0	<1.0	<1.0	<1.0
	1/11/2008	<100	<250	<400	<1.0	<1.0	<1.0	<1.0
	5/13/2008	NOT SAMPLED						
	10/1/2009	NOT SAMPLED						
	1/19/2010	NOT SAMPLED						
	5/1/2013	NOT SAMPLED						
	2/16/2016	NOT SAMPLED						
	8/23/2016	NOT SAMPLED						
	8/10/2017	NOT SAMPLED						
	12/14/2017	DECOMMISSIONED						

	DATE	GRO	DRO	ORO	B	T	E	X
MW-6	4/5/2007	<100	<260	<410	<1.0	<1.0	<1.0	<1.0
	7/11/2007	<100	<250	<400	<1.0	<1.0	<1.0	<1.0
	10/11/2007	<400	<250	<400	<4.0	<4.0	<4.0	<4.0
	1/11/2008	<100	<250	<410	<1.0	<1.0	<1.0	<1.0
	5/13/2008	NOT SAMPLED						
	10/1/2009	NOT SAMPLED						
	1/19/2010	NOT SAMPLED						
	5/1/2013	NOT SAMPLED						
	2/16/2016	NOT SAMPLED						
	8/23/2016	NOT SAMPLED						
	8/10/2017	NOT SAMPLED						
	12/14/2017	DECOMMISSIONED						

	DATE	GRO	DRO	ORO	B	T	E	X
MW-8	4/5/2007	190	<250	<410	1.4	<1.0	<1.0	4.0
	7/11/2007	<100	<250	<400	2.6	<1.0	<1.0	<1.0
	10/11/2007	<100	<250	<400	**5.7**	<1.0	<1.0	<1.0
	1/11/2008	<100	<270	<440	<1.0	<1.0	<1.0	<1.0
	5/13/2008	<100	<270	<430	2.7	<1.0	<1.0	<1.0
	10/1/2009	NA	<250	<400	1.4	NA	NA	NA
	1/19/2010	NA	<260	<410	<1.0	NA	NA	NA
	5/1/2013	<100	<250	<410	<1.0	<1.0	<1.0	<2.0
	2/16/2016	NA	<260	<410	NA	NA	NA	NA
	8/23/2016	NA	280	<410	NA	NA	NA	NA
	8/10/2017	NA	<260	<410	NA	NA	NA	NA
	12/14/2017	NA	<270	<440	NA	NA	NA	NA

	DATE	GRO	DRO	ORO	B	T	E	X
MW-10	4/5/2007	<400	**1,000**	<420	<4.0	<4.0	<4.0	<4.0
	7/11/2007	<100	**580**	<400	<1.0	<1.0	<1.0	<1.0
	10/11/2007	<400	**590**	<400	<4.0	<4.0	<4.0	<4.0
	1/11/2008	<100	<250	<410	<1.0	<1.0	<1.0	<1.0
	5/13/2008	220	**620**	<430	<1.0	<1.0	<1.0	<1.0
	10/1/2009	NA	**750**	<410	<1.0	NA	NA	NA
	1/19/2010	NA	<260	<410	<1.0	NA	NA	NA
	5/1/2013	<100	**1,700**	<410	<1.0	<1.0	<1.0	<2.0
	2/16/2016	NA	**3,500**	<410	NA	NA	NA	NA
	8/23/2016	NA	**1,900**	<640	NA	NA	NA	NA
	8/10/2017	NA	**3,000**	<580	NA	NA	NA	NA
	12/14/2017	NA	**4,600**	<3,400	NA	NA	NA	NA

	DATE	GRO	DRO	ORO	B	T	E	X
MW-9	4/5/2007	<100	<260	<410	<1.0	<1.0	<1.0	<1.0
	7/11/2007	<100	<250	<400	<1.0	<1.0	<1.0	<1.0
	10/11/2007	<100	<250	<410	<1.0	<1.0	<1.0	<1.0
	1/11/2008	<100	<260	<410	<1.0	<1.0	<1.0	<1.0
	5/1/2013	<100	310	<400	<1.0	<1.0	<1.0	<2.0
	2/16/2016	NA	<260	<410	NA	NA	NA	NA
	8/23/2016	NA	**1,200**	<550	NA	NA	NA	NA
	8/10/2017	NA	420	<410	NA	NA	NA	NA
	12/14/2017	NA	<300	<480	NA	NA	NA	NA

LEGEND

- MONITORING WELL (FARALLON 2005 AND 2017)
- DECOMMISSIONED MONITORING WELL (FARALLON 2017)
- APPROXIMATE SITE BOUNDARY
- BULKHEAD RETAINING WALL
- FORMER EXCAVATION AREA
- RESIDUAL SOIL CONTAMINATION AREA

NOTES:
UNITS ARE IN MICROGRAMS PER LITER (µg/L)

BTEX = BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES
DRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS
GRO = TPH AS GASOLINE-RANGE ORGANICS
ORO = TPH AS OIL-RANGE ORGANICS
NA = SAMPLE NOT ANALYZED FOR ANALYTE
BOLD = CONCENTRATIONS THAT EXCEED THE WASHINGTON STATE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVEL
< = ANALYTE NOT DETECTED AT OR EXCEEDING THE PRACTICAL QUANTITATION LIMIT LISTED

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FIGURE 5

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

FARALLON PN: 863-001

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Document Path: Q:\Projects\863 Former Evergreen Fuel\Figure_5_DATA2017.mxd

Figure 6
DRO Concentrations versus Groundwater Elevation Data Trends for Monitoring Well MW-9
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001

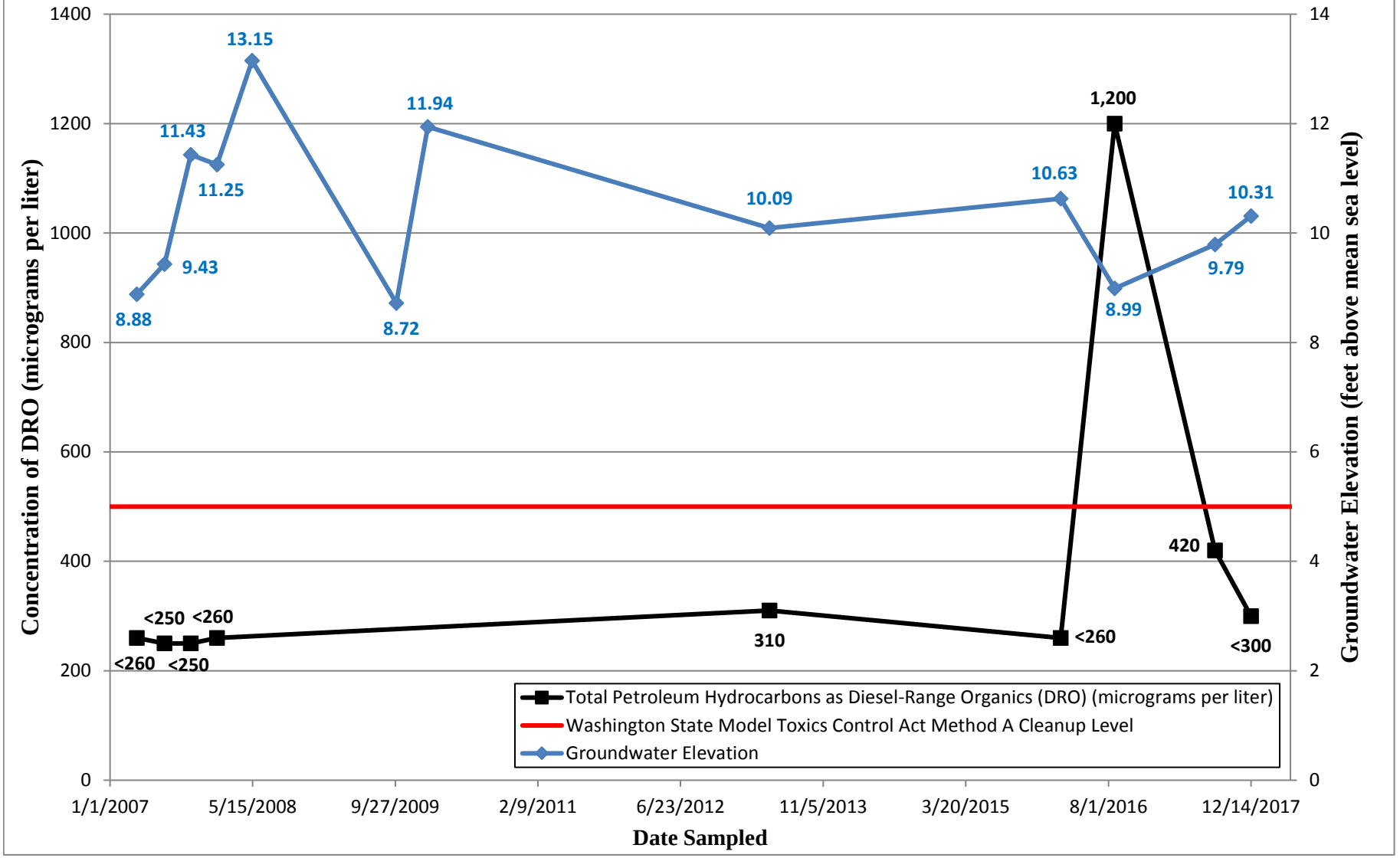
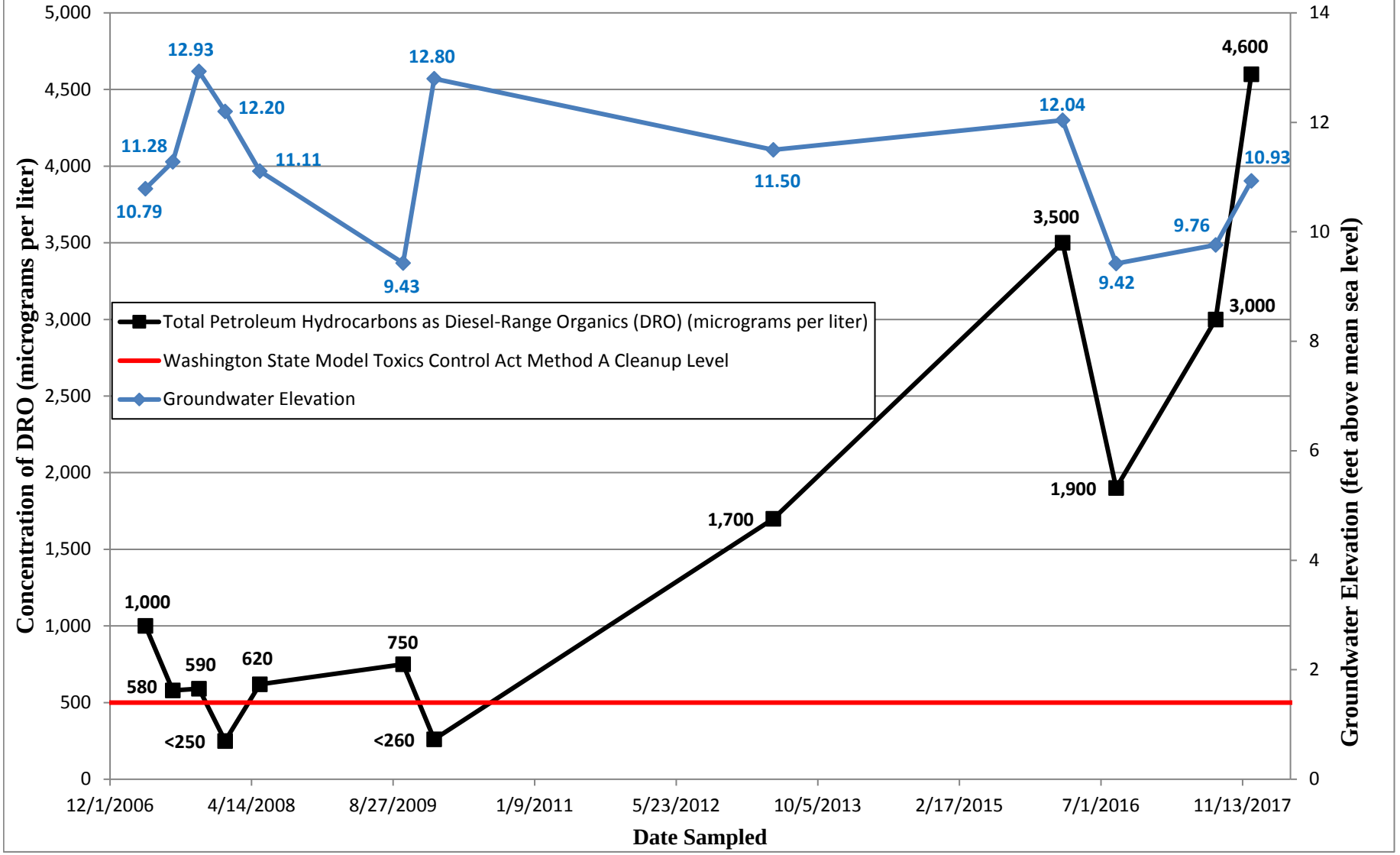


Figure 7
DRO Concentrations versus Groundwater Elevation Data Trends for Monitoring Well MW-10
Former Evergreen Fuel Facility
Shelton, Washington
Farallon PN: 863-001



TABLES

COMPLIANCE GROUNDWATER MONITORING AND SAMPLING
STATUS REPORT – 2017
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	Depth 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	7.40	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	4.40	10.07
				1/11/2008	5.10	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	6.10	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

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	Depth to Water (feet) [3]	Groundwater Elevation [2]
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	8.30	10.63
				8/23/2016	9.94	8.99
				8/10/2017	9.14	9.79
				12/14/2017	8.62	10.31
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

NOTES:

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

[2]Elevations relative to vertical survey datum that is based on a mean lower low water (MLLW) elevation of 44.11 feet and referenced from a Washington State Department of Transportation brass cap set in the monument with a published elevation of 47.58 feet NAV.

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

NM = not measured
NA = not available

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	--	--	--	--
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	--	--	--	--
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	--	--	--	--
MTCA Method A Cleanup Levels[5]			**800/1,000 [6]**	**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

[1]Analyzed by Northwest Method NWTPH-Gx.

[2]Analyzed by Northwest Method NWTPH-Dx.

[3]Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B.

[4]Laboratory analytical report indicates gasoline results are being influenced by the presence of diesel.

[5]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code as revised November 2013.

[6]The cleanup level for GRO is without/with the presence of benzene.

DRO = total petroleum hydrocarbons as diesel-range organics
GRO = total petroleum hydrocarbons as gasoline-range organics
NS = not sampled
ORO = total petroleum hydrocarbons as oil-range organics
QA/QC = quality assurance/quality control
U1 = the practical quantitaion limit is elevated due to interferences present in the sample

DRAFT – Issued for Regulatory Review

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

Well Identification	Sample Date	Geochemical Results				
		Temperature (^{o}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	6.1	0.65	471.1
	7/11/2007	19.7	0.147	4.8	1.03	413.2
	10/11/2007	15.0	0.143	6.7	0.91	-10.4
	1/11/2008	12.0	0.177	6.3	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	6.0	0.49	428.2
	7/11/2007	19.3	0.421	4.3	0.94	381.8
	10/11/2007	13.8	0.322	6.8	0.78	-82.8
	1/11/2008	9.6	0.32	6.7	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	11.4	0.270	6.7	1.29	443.6
	7/11/2007	21.5	0.386	4.1	0.93	511.9
	10/11/2007	14.6	0.323	7.2	1.62	68.2
	1/11/2008	8.4	0.252	7.4	2.48	-30.4
	5/13/2008	12.1	0.346	7.1	0.98	-44.4
	10/1/2009	17.5	0.468	7.2	4.22	-76
	1/19/2010	9.7	0.12	7.0	6.7	49.7
	5/1/2013	14.8	0.204	6.2	2.06	-7
	2/16/2016	10.6	0.092	6.6	4.37	147
	8/23/2016	21.6	0.235	6.7	0.61	-26
	8/10/2017	21.4	0.180	6.7	0.43	-31.5
	12/14/2017	11.0	0.190	6.6	0.71	9.1

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

Well Identification	Sample Date	Geochemical Results				
		Temperature (^{o}C)	Specific Conductance (mS/cm)	pH (pH units)	Dissolved Oxygen (mg/l)	Oxidation-Reduction Potential (mV)
MW-9	4/5/2007	12.4	0.361	6.1	3.57	478.6
	7/11/2007	21.3	0.56	4.6	3.41	420
	10/11/2007	15.1	0.326	6.6	6.4	79.8
	1/11/2008	8.7	0.129	7.3	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	16.2	0.135	6.3	0.89	-25
	2/16/2016	10.6	0.150	6.6	2.23	85
	8/23/2016	21.8	0.860	6.8	0.54	-40
	8/10/2017	19.4	0.248	6.6	0.41	-44.9
	12/14/2017	11.8	0.194	6.7	0.51	-47.3
MW-10	4/5/2007	11.8	0.252	5.9	0.96	480.3
	7/11/2007	20.5	0.316	5.8	0.73	175
	10/11/2007	15.1	0.309	6.6	0.48	-12.7
	1/11/2008	9.4	0.141	6.7	6.13	109.8
	5/13/2008	12.2	0.209	6.7	1.28	-57.8
	10/1/2009	17.2	0.379	6.8	0.07	-91.8
	1/19/2010	10.7	0.108	6.7	1.95	23.2
	5/1/2013	14.0	0.133	6.0	1.00	-16
	2/16/2016	11.3	0.274	6.2	0.88	44
	8/23/2016	18.3	0.343	6.7	0.79	-70
	8/10/2017	18.0	0.201	6.7	0.28	-96.5
	12/14/2017	12.1	0.269	6.3	0.29	-108.9

NOTES:
^{o}C = degrees Celsius
mS/cm = millisemens per centimeter
mg/l = milligrams per liter
mV = millivolts
NS = not sampled

ATTACHMENT A
RESOURCE PROTECTION WELL REPORT

COMPLIANCE GROUNDWATER MONITORING AND SAMPLING
STATUS REPORT – 2017
Former Evergreen Fuel Facility
661 East Pine Street
Shelton, Washington

Farallon PN: 863-001

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE46530

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* Q67428

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner: **Port of Shelton**
Site Address: **661 East Pine Street**
Consulting Firm: **Farallon**
City: **Shelton** County: **Mason**

Unique Ecology Well ID
Tag No.

Location 1/4 **NE** 1/4 **NW** Sec **20** TWN **20N** R **3W** EWM or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **32017-51-02006**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature: Tim Watson

Driller/Trainee License No. **3203**

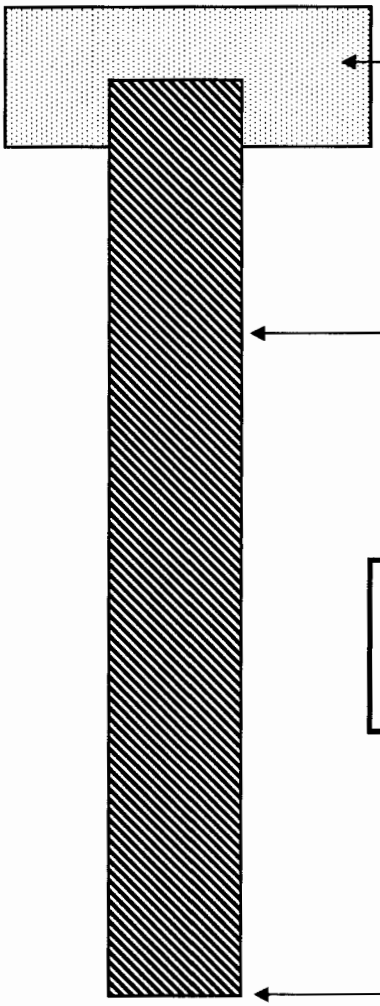
Cased or Uncased Diameter 2" Static Level

Work/Decommision Start Date 12-14-17

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date 12-14-17

Construction/Design — Well Data 103-17-1584 — Formation Description



CONCRETE SURFACE SEAL 1' FT — 0 - FT

BACKFILL 14' FT — 0 - FT

Bent. chip

DEPTH OF BORING 15' FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # :

CLIENT WELL ID #: MW-5

Scale 1" = Page of

ECY 050-12 (Rec=v 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE46530

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* R07428

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm **Farallon**

Property Owner **Port of Shelton**

Site Address **661 East Pine Street**

City **Shelton** County **Mason**

Unique Ecology Well ID
Tag No.

Location 1/4 **NE** 1/4 **NW** Sec **20** TWN **20N** R **3W** EWM or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **32017-51-02006**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature Tim Watson

Driller/Trainee License No. **3203**

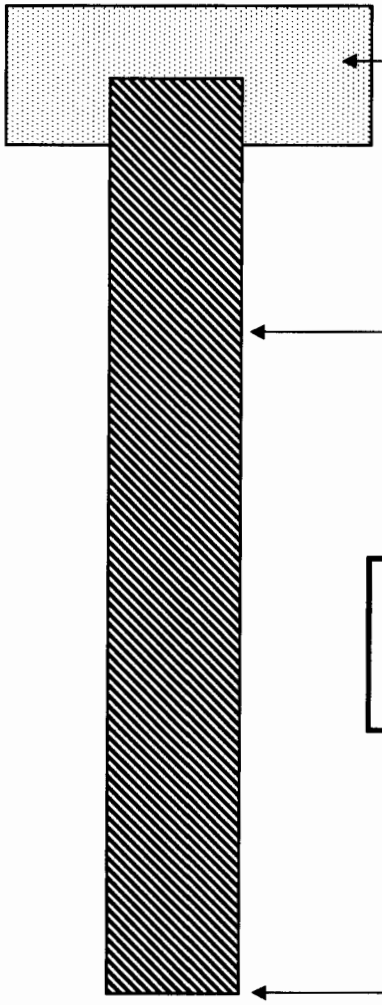
Cased or Uncased Diameter 2" Static Level

Work/Decommision Start Date 12-14-17

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date 12-14-17

Construction/Design — Well Data 103-17-1584 — Formation Description



CONCRETE SURFACE SEAL 2' FT — 0 - FT

BACKFILL 8' FT — 0 - FT

Bent. chip

DEPTH OF BORING 10' FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : AKN-417

CLIENT WELL ID #: MW-6

Scale 1" = Page of

ECY 050-12 (Rec=v 2/01)

ATTACHMENT B
LABORATORY ANALYTICAL REPORTS

COMPLIANCE GROUNDWATER MONITORING AND SAMPLING
STATUS REPORT – 2017
Former Evergreen Fuel Facility
661 East Pine Street
Shelton, Washington

Farallon PN: 863-001

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

August 18, 2017

Javan Ruark
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 863-001
Laboratory Reference No. 1708-171

Dear Javan:

Enclosed are the analytical results and associated quality control data for samples submitted on August 11, 2017.

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,

David Baumeister
Project Manager

Enclosures

Date of Report: August 18, 2017
Samples Submitted: August 11, 2017
Laboratory Reference: 1708-171
Project: 863-001

Case Narrative

Samples were collected on August 10, 2017 and received by the laboratory on August 11, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Date of Report: August 18, 2017
Samples Submitted: August 11, 2017
Laboratory Reference: 1708-171
Project: 863-001

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8-081017**					
Laboratory ID:	08-171-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	8-15-17	8-15-17	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-15-17	8-15-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*106*	*50-150*				
Client ID:	**MW-9-081017**					
Laboratory ID:	08-171-02					
Diesel Range Organics	**0.42**	0.26	NWTPH-Dx	8-15-17	8-15-17	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-15-17	8-15-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*120*	*50-150*				
Client ID:	**MW-10-081017**					
Laboratory ID:	08-171-03					
Diesel Range Organics	**3.0**	0.26	NWTPH-Dx	8-15-17	8-15-17	
Lube Oil Range Organics	**ND**	0.58	NWTPH-Dx	8-15-17	8-15-17	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*106*	*50-150*				

Date of Report: August 18, 2017
Samples Submitted: August 11, 2017
Laboratory Reference: 1708-171
Project: 863-001

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0815W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-15-17	8-15-17	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	8-15-17	8-15-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-171-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*106*	*117*	*50-150*			

OnSite Environmental Inc.

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-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

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

Company: Farallon
Project Number: 863-001
Project Name: Evergreen Fuel Facility
Project Manager: Javan Ruark
Sampled by: Ryan Ostrom

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 08-171

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A					% Moisture
1	MW-8-081017	8/10/17	1145	W	2				X																		
2	MW-9-081017	↓	1235	↓	↓				X																		
3	MW-10-081017	↓	1315	↓	↓				X																		
	RO																										

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	8/10/17	1730
Received	Van	Spdy	8/11/17	830
Relinquished	Van	Spdy	8/11/17	940
Received		OSE	8/11/17	0940
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

December 22, 2017

Javan Ruark
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 863-001
Laboratory Reference No. 1712-180

Dear Javan:

Enclosed are the analytical results and associated quality control data for samples submitted on December 15, 2017.

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,

David Baumeister
Project Manager

Enclosures

Date of Report: December 22, 2017
Samples Submitted: December 15, 2017
Laboratory Reference: 1712-180
Project: 863-001

Case Narrative

Samples were collected on December 14, 2017 and received by the laboratory on December 15, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Date of Report: December 22, 2017
Samples Submitted: December 15, 2017
Laboratory Reference: 1712-180
Project: 863-001

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-8-121417**					
Laboratory ID:	12-180-01					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	12-20-17	12-20-17	
Lube Oil Range Organics	**ND**	0.44	NWTPH-Dx	12-20-17	12-20-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				
Client ID:	**MW-9-121417**					
Laboratory ID:	12-180-02					
Diesel Range Organics	**ND**	0.30	NWTPH-Dx	12-20-17	12-20-17	
Lube Oil Range Organics	**ND**	0.48	NWTPH-Dx	12-20-17	12-20-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*67*	*50-150*				
Client ID:	**MW-10-121417**					
Laboratory ID:	12-180-03					
Diesel Range Organics	**4.6**	0.28	NWTPH-Dx	12-20-17	12-20-17	
Lube Oil Range Organics	**ND**	3.4	NWTPH-Dx	12-20-17	12-20-17	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				

Date of Report: December 22, 2017
Samples Submitted: December 15, 2017
Laboratory Reference: 1712-180
Project: 863-001

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1220W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	12-20-17	12-20-17	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	12-20-17	12-20-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*73*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	12-181-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*72*	*73*	*50-150*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

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PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

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

Laboratory Number: 12-180

Company: Farallon
Project Number: 863-001
Project Name: Former Evergreen Fuel Facility
Project Manager: Javan Ruark
Sampled by: Ryan Ostrom

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A					% Moisture
1	MW-8-121417	12/14/17	1301	W	2				X																		
2	MW-9-121417	↓	1225	↓	2				X																		
3	MW-10-121417	↓	1130	↓	2				X																		

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	12/14/17	1700
Received		alpha	12/15	4:00
Relinquished		alpha	12/15	6:00
Received		CORE	12/15/17	1800
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐