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INTERIM ACTION COMPLETION REPORT

700 DEXTER HVOC PLUME
BLOCK 37 PROPERTY
630 WESTLAKE AVENUE NORTH
SEATTLE, WASHINGTON

Submitted by:
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For:
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April 9, 2018

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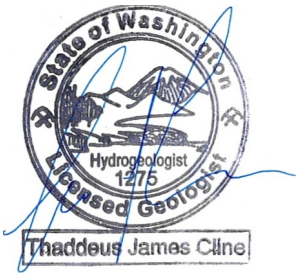

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1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) prepared this Interim Action Completion Report to document the Interim Action conducted at 630 Westlake Avenue North in the South Lake Union area of Seattle, Washington (Block 37 Property) from April 17 through December 18, 2017 (Figures 1 and 2). City Investors XI LLC (City Investors) owns the Block 37 Property, and installed and operated components of an interim action comprised of four groundwater interception wells, wastewater conveyance piping, and a wastewater treatment process (Interim Action System). The Interim Action System was installed in accordance with the *Interim Action Work Plan, 700 Dexter HVOC Plume Portion of 700 Dexter Site, South Lake Union Properties, Seattle, Washington* dated December 1, 2016, prepared by Farallon (2016) (Interim Action Work Plan). The Interim Action was performed in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340), as an independent remedial action per WAC 173-340-515 without direct oversight from the Washington State Department of Ecology (Ecology). The Interim Action Work Plan, however, was provided to Ecology. This Interim Action Completion Report satisfies the requirements for an Interim Action completion report as specified in the Interim Action Work Plan and in accordance with WAC 173-340-400(6)(b).

The Interim Action Work Plan presented background information pertaining to a regional groundwater plume of volatile organic constituents and hydrogeologic conditions in the South Lake Union area, a summary of the basis for the Interim Action, and a description of the Interim Action and Interim Action System design criteria. This Interim Action Completion Report summarizes background information pertaining to the Block 37 Property; describes the Interim Action conducted at the Block 37 Property, including its objectives and Interim Action System construction, operation, monitoring, and shut-down; documents the results from the Interim Action; and concludes that the Interim Action objectives were met.

2.0 BACKGROUND

The section summarizes pertinent background information pertaining to the Block 37 Property. Additional background information regarding the regional groundwater plume of volatile organic constituents and hydrogeologic conditions in the South Lake Union area, a summary of the basis for the Interim Action, and a description of the Interim Action and Interim Action design criteria were presented in the Interim Action Work Plan.

Groundwater in the South Lake Union area is impacted by tetrachloroethene (PCE) and its degradation compounds trichloroethene, isomers of dichloroethene (DCE), and vinyl chloride (collectively referred to as HVOCs), released at and migrating from a former dry cleaning facility owned and operated by American Linen Supply Co. (American Linen) at 700 Dexter Avenue North, currently owned by BMR-Dexter, LLC (700 Dexter Property) (Figure 2). HVOCs have migrated through groundwater to the northeast, east, and south of the 700 Dexter Property and comprise a regional plume of unknown extent (700 Dexter HVOC Plume). Based on empirical data, the 700 Dexter HVOC Plume is known to extend as far east as the eastern portion of the Block 37 Property (Figure 2).

The area where contamination attributable to the former American Linen facility has come to be located is referred to by Ecology as the American Linen Supply Co. - Dexter Avenue Site and sometimes also is referred to as the 700 Dexter Site. Ecology has determined that BMR-Dexter, LLC; 700 Dexter, LLC, a former owner of the 700 Dexter Property; and American Linen are potentially liable persons (PLPs) under MTCA for the 700 Dexter Site. Based on Ecology data and records reviewed by Farallon[1], the PLPs have not fully characterized the 700 Dexter Site to date, or implemented remedial actions to treat or contain portions of the 700 Dexter HVOC Plume that extend beyond the 700 Dexter Property.

Lakefront Investors 1 LLC and Lakefront Investors 2 LLC commenced redevelopment of two properties east-adjacent to the Block 37 Property in April 2017, with work on the above-grade portions of the buildings continuing into 2018. These properties are referred to as the Block 25 Property (609 Fairview Avenue North and 630 Boren Avenue North) and the Block 31 Property (625 Boren Avenue North), and collectively as the Blocks 25 and 31 Properties (Figure 2). Construction at the Blocks 25 and 31 Properties required dewatering from May to December 2017. Based on the known eastern limit of the 700 Dexter HVOC Plume at the Block 37 Property and an understanding of hydrogeologic conditions in the South Lake Union area, if the Interim Action had not been implemented, construction dewatering at the Blocks 25 and 31 Properties would have resulted in further eastward expansion of the lateral extent of the 700 Dexter HVOC Plume into areas that currently are not impacted.

[1] Documentation provided by Ecology for Farallon review regarding conditions known to date pertaining to the 700 Dexter Site and cleanup plans include SoundEarth Strategies, Inc. (2013a, 2013b, 2014, 2015) and PES Environmental, Inc. (2018) reports.

Construction dewatering associated with development activities at the Blocks 25 and 31 Properties commenced at those properties on May 18, 2017. The objective of the construction dewatering was to draw down shallow static groundwater levels from about 15 feet above mean sea level (msl) to as deep as about 7 feet below msl at the Block 31 Property, and to about 4 feet below msl at the Block 25 Property. The construction dewatering wells were screened from approximately 15 feet above msl to approximately 25 feet below msl and across the Shallow Water-Bearing Zone, the Intermediate Water-Bearing Zone, and, at some locations, the upper few feet of the Deep Outwash Aquifer, as these water-bearing units are defined for the South Lake Union area in the Interim Action Work Plan[2]. Construction excavation removed the Shallow Water-Bearing Zone and portions of the Intermediate Water-Bearing Zone from the Blocks 25 and 31 Properties. The construction dewatering system extracted up to about 1,300,000 gallons of groundwater per day, with an average of about 690,000 gallons per day from May 18 through October 19, 2017. Pumping from some of the construction dewatering wells at the Blocks 25 and 31 Properties was terminated on October 19, 2017, beginning a gradual reduction in construction dewatering groundwater pumping as underground structures were completed at the Blocks 25 and 31 Properties, and the mass of the structures was sufficient to counteract buoyancy forces exerted by shallow static groundwater conditions. Construction dewatering at the Block 31 Property was completely shut down on November 17, 2017. Reduced construction dewatering pumping continued at the Block 25 Property in selected dewatering wells until complete shutdown of the Block 25 Property dewatering system on December 17, 2017. A total of about 120,000,000 gallons of groundwater was removed during construction dewatering at the Block 25 and 31 Properties between May 18 and December 17, 2017.

[2] Shallow Water-Bearing Zone: the uppermost water-bearing zone in fill and underlying recent deposits.

Intermediate Water-Bearing Zone: the water-bearing zone below the Shallow Water-Bearing Zone in glacially consolidated soil.

Deep Outwash Aquifer: the water-bearing zone below the Intermediate Water-Bearing Zone in dense advance outwash sand deposits.

3.0 INTERIM ACTION

The Interim Action conducted at the Block 37 Property is discussed in this section, including its objectives; the construction, operation, monitoring, and shut-down of the Interim Action System; and the results from the Interim Action.

3.1 OBJECTIVES

As described in the Interim Action Work Plan, the objectives of the Interim Action were to:

- Prevent further eastern migration of the 700 Dexter HVOC Plume located at and under the Block 37 Property during the period of construction dewatering at the Blocks 25 and 31 Properties to the extent practicable; and
- Manage HVOC-contaminated groundwater by extraction and treatment to avoid potential impacts to the down-gradient (under pumping conditions) Blocks 25 and 31 Properties.

3.2 INTERIM ACTION SYSTEM CONSTRUCTION, OPERATION, AND MONITORING

Interim Action System interception well design specifications detailed in the *Interim Action Interception Well Plan* dated November 2, 2016 prepared by Middour Consulting LLC (2016) provided the design for the four Interim Action interception wells (Appendix A). The Interim Action System interception wells were installed on the Block 37 Property on February 2, 3, and 7, 2017 in accordance with the design specifications. The interception wells were constructed of 12-inch-diameter steel casing, and were screened from 32 to 92 feet below ground surface (i.e., 3 to 63 feet below msl) and across the upper portion of the Deep Outwash Aquifer and the lower portion of the Intermediate Water-Bearing Zone (Figure 2; Appendix B). Pumping associated with the Interim Action System commenced on April 17, 2017, approximately 1 month prior to the start of construction dewatering at the Blocks 25 and 31 Properties. The Interim Action System withdrew up to about 670,000 gallons of groundwater per day, with an average of about 280,000 gallons per day from April 17 through shut-down on December 18, 2017. A total of about 70,000,000 gallons of groundwater was extracted and treated during operation of the Interim Action System.

The technical memorandum regarding April through June 2017 Status Report, Groundwater Interception System, 700 Dexter HVOC Plume Interim Action, Seattle, Washington dated October 16, 2017 from Messrs. Russell O. Luiten and Thaddeus J. Cline of Farallon (2017) to Mr. Raymond Burdick of City Investors XI LLC (June Status Report), summarized the start-up of the Interim Action System on April 17, 2017 and its operation through June 30, 2017.

As specified in the Interim Action Work Plan and described in the June Status Report, Farallon performed Interim Action compliance monitoring for the duration of the operation of the Interim Action System, which consisted of the following:

- Automatic recording of water levels with pressure transducers and data loggers in select monitoring wells (Logging).
- Manual gauging of groundwater level elevations in select monitoring wells and in the Interim Action interception wells (Gauging).
- Groundwater and wastewater sampling for HVOC analysis at specific locations and times (Sampling). Sampling applied only to groundwater monitoring in wells FMW-131 and FMW-3D, and to effluent from the Interim Action System.

Compliance monitoring was conducted using the methodology specified in the Interim Action Work Plan. Table 1 summarizes Farallon field events conducted during the Interim Action; Table 2 provides results from the Gauging; Table 3 presents results from the Sampling.

Wastewater generated by the Interim Action System was treated in and discharged from a wastewater treatment system that was designed, built, operated, maintained, and monitored by WaterTectonics. Treated wastewater from the Interim Action was discharged from a single point of discharge together with treated wastewater generated by construction activities conducted at the Blocks 25 and 31 Properties. A table presenting laboratory analytical results for HVOCs in wastewater samples collected by WaterTectonics from May through December 2017 is provided in Appendix C.

In addition to Interim Action compliance monitoring, Farallon conducted periodic operational monitoring of one component of the Interim Action wastewater treatment system for the purpose of evaluating compliance with air emissions regulations, and to recommend adjustments to the Interim Action System so as to comply with air emissions regulations. The wastewater treatment system comprised a number of treatment processes and included two aeration tanks that reduced HVOC concentrations in the groundwater extracted by the Interim Action System by induced volatilization to the atmosphere. The aeration treatment process was conducted upstream of sand filtration, filtration using granular activated carbon, and discharge of treated wastewater via a private conveyance to Lake Union under a National Pollutant Discharge Elimination System Construction Stormwater General Permit, or alternatively, discharge to the sanitary sewer per a King County Major Discharge Authorization. Results from Farallon's operational monitoring of wastewater discharge from the two aeration tanks enabled evaluation of the HVOC removal efficiency of the aeration treatment process, and the need for adjustments to the Interim Action System to comply with untreated air emissions regulations (Puget Sound Clean Air Agency Regulation I, Section 6.03[c][94]). Table 4 presents laboratory analytical results for HVOC concentrations in wastewater samples collected by Farallon from the influent to and effluent from the aeration tanks during the period of aeration tank operation.

Laboratory analytical reports for groundwater and wastewater samples collected by Farallon during the Interim Action are provided in Appendix D.

3.3 INTERIM ACTION SYSTEM SHUT-DOWN

Groundwater extraction for the Interim Action was terminated on December 18, 2017, approximately 1 month after termination of groundwater pumping associated with construction dewatering at the Block 31 Property. The Interim Action System shut-down entailed a final round of Gauging, termination of Logging, and Sampling at monitoring well FMW-131 as specified in the Interim Action Work Plan. After the termination of Interim Action groundwater extraction, the interception well pumps, controls, and wiring were removed, and the well-heads were modified so the former interception wells could be maintained as monitoring wells.

After removing approximately 13 pounds of vinyl chloride from Interim Action wastewater, the aeration treatment process of the wastewater treatment system was shut down on November 3, 2017 to prevent exceedance of the 15-pound limit for vinyl chloride under the Puget Sound Clean Air Agency exceptions criterion for untreated air emissions.

3.4 INTERIM ACTION RESULTS

Groundwater extraction performed by the Interim Action System created a linear depression of groundwater levels that was lower than the water level elevations in the construction dewatering system observation wells. The Gauging data presented in Table 2 indicate that maximum drawdown in the Interim Action System interception wells was about 36 feet (to about 18 feet below msl[3]). Maximum drawdown at monitoring well FMW-131, located approximately 100 feet east of the Interim Action System interception wells, was about 27 feet (to about 8 feet below msl[4]). Maximum drawdown in the construction dewatering system on the western side of the Block 31 Property was about 22 feet (to about 7 feet below msl). The westward groundwater flow gradient on the eastern portion of the Block 37 Property induced by Interim Action System groundwater pumping[5] prevented further eastward migration of the 700 Dexter HVOC Plume during the period of construction dewatering. Based on periodic discharge readings and results of laboratory analysis of samples of Interim Action wastewater for HVOCs, the Interim Action System removed approximately 46 pounds of HVOCs (28 pounds cis-1,2-DCE and 18 pounds vinyl chloride) during the period of its operation.

Results from Sampling at monitoring well FMW-3D indicate that no HVOCs were present in groundwater as far east as the Block 31 Property, and wastewater discharge from construction dewatering groundwater pumping at the Blocks 25 and 31 Properties did not require treatment for HVOCs prior to discharge. Sampling data presented in Table 3 indicate that groundwater pumping associated with construction dewatering at the Blocks 25 and 31 Properties did not cause further

[3] On July 7, 2017 in interception well IA-2.
[4] On July 7, 2017 in monitoring well FMW-131.
[5] There was a general eastward groundwater flow gradient prior to the Interim Action and construction dewatering.

eastward migration of the 700 Dexter HVOC Plume under the Block 37 Property. In fact, analytical results for groundwater samples collected from monitoring well FMW-131 demonstrate a reduction in HVOC concentrations in groundwater samples collected proximate to the pre-pumping eastern extent of the 700 Dexter HVOC Plume as a result of the Interim Action, as follows:

- cis-1,2-DCE was detected at a concentration of 39 micrograms per liter in a groundwater sample collected from monitoring well FMW-131 on March 24, 2017, prior to start-up of the Interim Action System and the Blocks 25 and 31 Properties construction dewatering systems. Concentrations of PCE, trichloroethene, trans-1,2-DCE, and vinyl chloride were non-detect in the groundwater sample collected from monitoring well FMW-131 on March 24, 2017.

- cis-1,2-DCE was detected at a concentration of 3.6 micrograms per liter and vinyl chloride was detected at a concentration of 0.26 micrograms per liter in a groundwater sample collected from monitoring well FMW-131 on June 23, 2017, approximately 3 months after start-up of the Interim Action System, and approximately 1 month after start-up of the Blocks 25 and 31 Properties construction dewatering systems. Concentrations of other HVOCs were non-detect in the groundwater sample collected from monitoring well FMW-131 on June 23, 2017.

- cis-1,2-DCE was detected at a concentration of 0.61 microgram per liter in a groundwater sample collected from monitoring well FMW-131 on December 18, 2017, the day the Interim Action System was shut down, about 1 month after shut-down of the Block 31 construction dewatering system. This concentration indicates a reduction of over 98 percent in the concentration of cis-1,2-DCE from concentrations present prior to start-up of the Interim Action System. Concentrations of other HVOCs were non-detect in the groundwater sample collected from monitoring well FMW-131 on December 18, 2017.

4.0 CONCLUSIONS

The Interim Action was conducted in accordance with MTCA on an independent basis per WAC 173-340-515, Independent Remedial Actions without direct oversight from Ecology. The objectives of the Interim Action were to prevent further eastward migration of the 700 Dexter Plume at and under the Block 37 Property, and to avoid potential impacts to the down-gradient Blocks 25 and 31 Properties during construction dewatering, to the extent practicable. The Interim Action successfully prevented further eastward migration of the 700 Dexter HVOC Plume located at and under the Block 37 Property by establishing a linear depression of groundwater levels at the interception wells, and the Interim Action System managed HVOC-contaminated groundwater by extraction and treatment to avoid potential impacts to the Blocks 25 and 31 Properties during construction dewatering. Analytical results for groundwater samples collected prior to, during, and following the Interim Action demonstrate a reduction in HVOC concentrations in groundwater proximate to the pre-pumping eastern extent of the 700 Dexter HVOC Plume as a result of the Interim Action. It is estimated that the Interim Action System removed approximately 46 pounds of HVOCs from the 700 Dexter HVOC Plume.

5.0 REFERENCES

Farallon Consulting, L.L.C. (Farallon). 2016. *Interim Action Work Plan, 700 Dexter HVOC Plume Portion of 700 Dexter Site, South Lake Union Properties, Seattle, Washington.* Prepared for City Investors XI LLC. December 1.

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Middour Consulting LLC. 2016. *Interim Action Interception Well Plan.* Prepared for City Investors XI LLC. November 2.

PES Environmental, Inc. (PES). 2018. *Public Review Interim Action Work Plan, American Linen Supply Co-Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington.* January 8.

SoundEarth Strategies, Inc. 2013a. *Remedial Investigation Report, 700 Dexter Property, 700 Dexter Avenue North, Seattle, Washington—Draft Issued for Ecology Review*. Prepared for Frontier Environmental Management LLC. July 15.

———. 2013b. *Feasibility Study Report, 700 Dexter Property, 700 Dexter Avenue North, Seattle, Washington—Draft Issued for Ecology Review*. Prepared for Frontier Environmental Management LLC. August 16.

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———. 2015. *Draft Cleanup Action Plan, 700 Dexter Property, 700 Dexter Avenue North, Seattle, Washington—Draft Issued for Ecology Review*. Prepared for Frontier Environmental Management LLC. September 28.

6.0 LIMITATIONS

6.1 GENERAL 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 obtained, reviewed, and evaluated 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 or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or 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 cannot and does not warrant or 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 can be considered valid only as of the date of the report hereof.

This report/assessment has been prepared in accordance with the contract for services between Farallon and City Investors XI LLC. No other warranties, representations, or certifications are made.

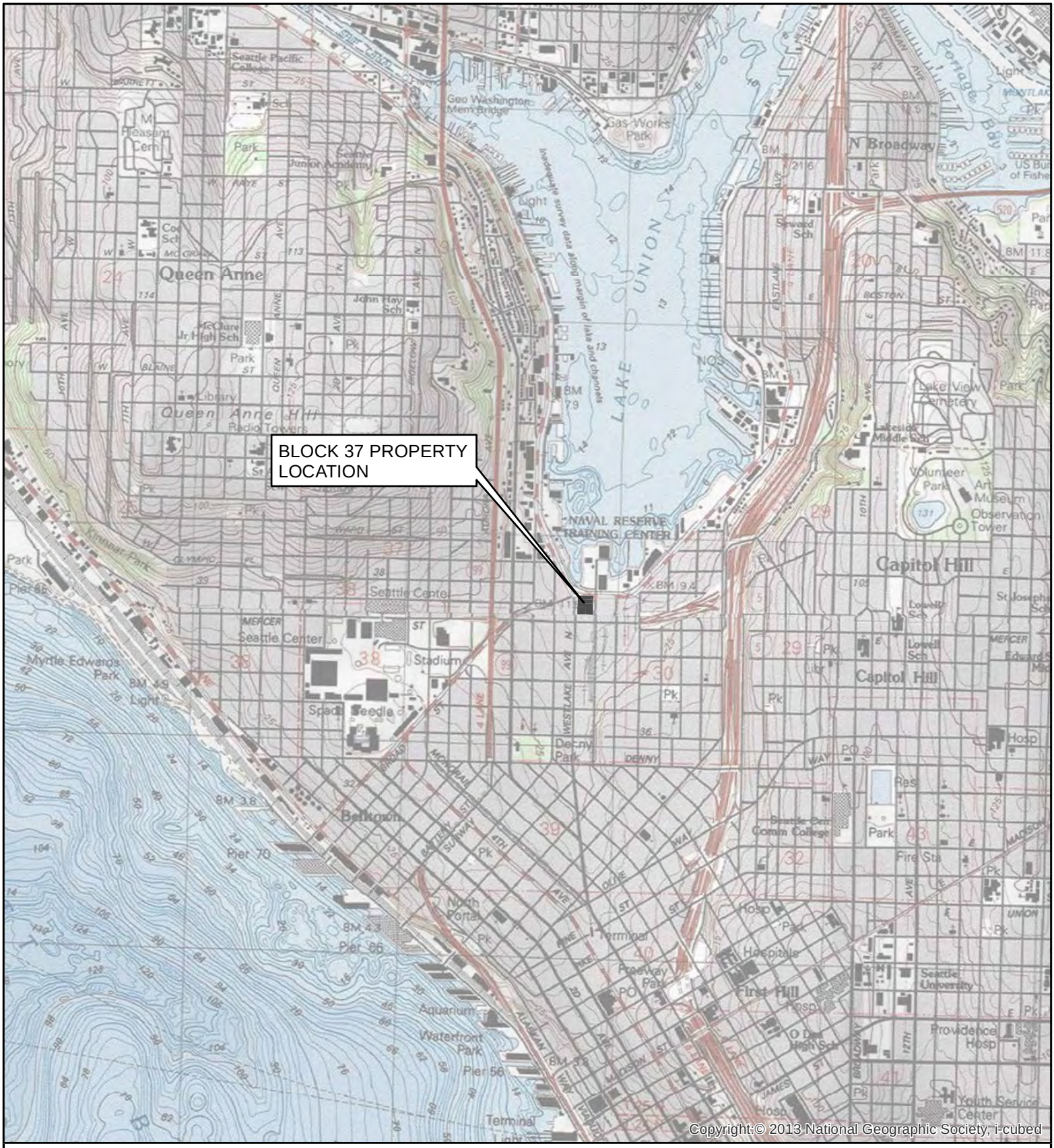
6.2 LIMITATION ON RELIANCE BY THIRD PARTIES

Reliance by third parties is prohibited. Any use, interpretation, or reliance upon this report/assessment by anyone other than City Investors XI LLC is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

INTERIM ACTION COMPLETION REPORT
Groundwater Interception System
700 Dexter HVOC Plume Interim Action
Block 37 Property
630 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-044



REFERENCE: 7.5 MINUTE USGS QUADRANGLE SEATTLE NORTH, WASHINGTON, DATED 2013

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FIGURE 1

VICINITY MAP
700 DEXTER HVOC PLUME INTERIM ACTION
SEATTLE, WASHINGTON

FARALLON PN: 397-044

Drawn By: tperrin Checked By: BJ Date: 6/27/2017 Disc Reference:

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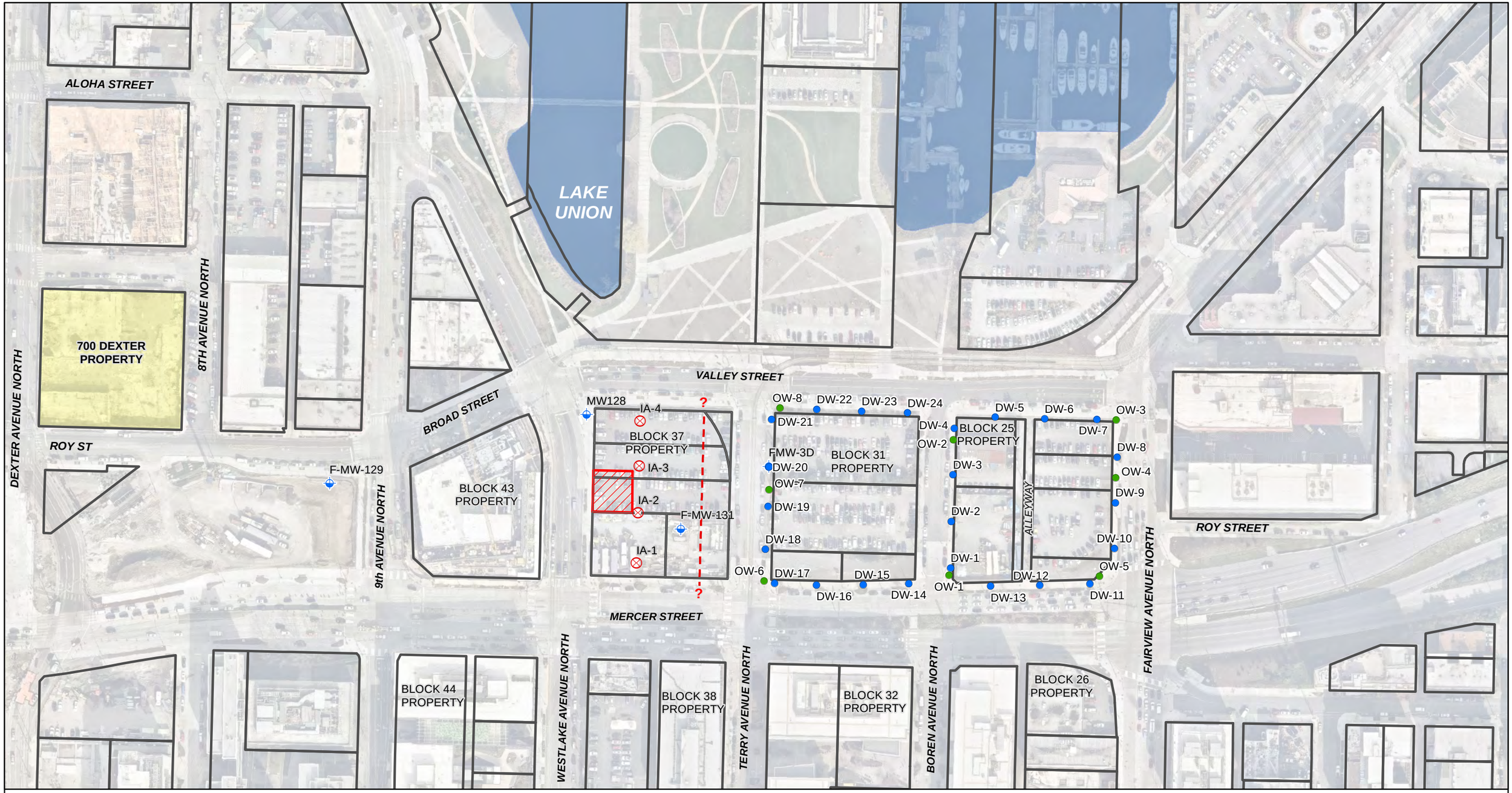

LEGEND

- INTERMEDIATE WATER-BEARING ZONE WELL
- DEEP OUTWASH AQUIFER WELL
- PROPOSED DEWATERING WELL
- PROPOSED OBSERVATION WELL
- INTERIM ACTION INTERCEPTION WELL
- APPROXIMATE EASTERN EXTENT OF 700 DEXTER HVOC PLUME AT THE BLOCK 37 PROPERTY PRIOR TO GROUNDWATER PUMPING ASSOCIATED WITH THE INTERIM ACTION AND CONSTRUCTION DEWATERING AT THE BLOCKS 25 AND 31 PROPERTIES
- WASTEWATER TREATMENT SYSTEM (APPROXIMATE LOCATION)
- KING COUNTY PARCELS
- 700 DEXTER PROPERTY

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FIGURE 2

INTERIM ACTION COMPONENTS
700 DEXTER HVOC PLUME INTERIM ACTION
SEATTLE, WASHINGTON

FARALLON PN: 397-044

Drawn By: jjones | Checked By: TC | Date: 1/24/2018 | Disc Reference:

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TABLES

INTERIM ACTION COMPLETION REPORT
Groundwater Interception System
700 Dexter HVOC Plume Interim Action
Block 37 Property
630 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-044

Table 1
Event Summary
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Monitoring Event[1]	Monitoring Date	System Flow (gallons per minute)	System Flow Adjustments	Gauging	Sampling
Install Interim Action wells IA-1 and IA-2	2/3/2017	---			
Install Interim Action wells IA-3 and IA-4	2/7/2017				
Farallon monitoring	4/14/2017			x	
Start-up for 48-hour test for Interim Action well IA-2 only, adjustments	04/17/2017	300 (one well only)	x	x	x
	04/18/2017			x	
Start-up for all four Interim Action wells	04/19/2017	800	x	x	x
Smaller pumps installed in all four Interim Action wells	04/21/2017	280	x		
Farallon monitoring	04/27/2017	260		x	x
Farallon monitoring	05/04/2017	280		x	x
Farallon monitoring	05/12/2017			x	x
Farallon monitoring	05/15/2017			x	
Farallon monitoring	05/24/2017			x	x
Farallon monitoring	06/02/2017			x	x
Farallon monitoring	06/06/2017			x	
Farallon monitoring	06/13/2017	260		x	x
Farallon monitoring	06/27/2017			x	x
Farallon monitoring	06/30/2017			x	
Farallon monitoring	07/07/2017			x	x
Farallon monitoring, adjustments	07/14/2017	180	x	x	x
Farallon monitoring, adjustments	07/17/2017		x	x	
Farallon monitoring, adjustments	07/18/2017		x	x	
Farallon monitoring, adjustments	07/19/2017		x	x	
Farallon monitoring	07/20/2017			x	x
Farallon monitoring	07/31/2017			x	x
Farallon monitoring	08/09/2017			x	x
Farallon monitoring	08/18/2017			x	x
Farallon monitoring, adjustments	08/23/2017	160	x	x	
Farallon monitoring, adjustments	08/24/2017		x	x	
Farallon monitoring	08/30/2017			x	x
Farallon monitoring	09/12/2017			x	x
Farallon monitoring	09/27/2017			x	x

Table 1
Event Summary
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Monitoring Event[1]	Monitoring Date	System Flow (gallons per minute)	System Flow Adjustments	Gauging	Sampling
Farallon monitoring, adjustments	09/29/2017	130	x	x	
Farallon monitoring	10/05/2017			x	x
Farallon monitoring, adjustments	10/24/2017		x	x	x
Farallon monitoring	10/25/2017			x	
Farallon monitoring, adjustments	10/26/2017		x	x	
Farallon monitoring	10/27/2017			x	
Farallon monitoring, adjustments	10/30/2017		x	x	
Farallon monitoring, adjustments	10/31/2017	110	x	x	
Farallon monitoring, adjustments	11/06/2017	150	x	x	
Farallon monitoring	11/10/2017			x	
Farallon monitoring, adjustments	11/16/2017	110	x	x	
Farallon monitoring, adjustments	11/17/2017		x	x	x
Farallon monitoring, adjustments	11/20/2017		x	x	
Farallon monitoring, adjustments	11/29/2017	85	x	x	
Farallon monitoring	12/04/2017			x	
Farallon monitoring, adjustments	12/05/2017		x	x	
Farallon monitoring, adjustments	12/08/2017		x	x	
Shutdown of Interim Action system	12/18/2017	---	x	x	x
Farallon monitoring	01/04/2018			x	

NOTES:

--- denotes 0 gallons per minute; no pumping occurred.

HVOC = halogenated volatile organic compound

[1]Sampling details for each monitoring event are provided in Table 3.

Table 2
Groundwater Elevations
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Location	Monitoring Date[1]	Top of Casing Elevation (feet NAVD88)[2]	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
FMW-131	3/24/2017	27.85	9.57	18.28
	4/10/2017		6.66	21.19
	4/14/2017		9.64	18.21
	4/17/2017		9.50	18.35
	4/18/2017		18.25	9.60
	4/19/2017		12.96	14.89
	5/4/2017		24.92	2.93
	5/5/2017		25.03	2.82
	5/12/2017		25.81	2.04
	5/15/2017		26.19	1.66
	5/24/2017		32.64	-4.79
	6/2/2017		33.70	-5.85
	6/6/2017		32.21	-4.36
	6/13/2017		33.20	-5.35
	6/27/2017		34.77	-6.92
	6/30/2017		34.60	-6.75
	7/7/2017		36.17	-8.32
	7/14/2017		34.28 [4]	-6.43 [4]
	7/20/2017		33.75	-5.90
	7/31/2017		33.44	-5.59
	8/9/2017		33.25	-5.40
	8/18/2017		33.37	-5.52
	8/23/2017		32.65	-4.80
	8/24/2017		32.47	-4.62
	8/30/2017		32.39	-4.54
	9/12/2017		32.69	-4.84
	9/27/2017		32.80	-4.95
	9/29/2017		32.38	-4.53
	10/25/2017		30.15	-2.30
	10/27/2017		30.28	-2.43
	11/29/2017		22.39	5.46
	12/18/2017		20.44	7.41
	1/4/2018		14.61	13.24
FMW-3D	3/24/2017	27.88	9.60	18.28
	4/10/2017		9.64	18.24
	4/14/2017		9.65	18.23
	4/17/2017		9.50	18.38
	4/18/2017		15.48	12.40
	4/19/2017		12.67	15.21
	4/27/2017		29.40	-1.52
	5/4/2017		21.70	6.18
	5/5/2017		21.87	6.01
	5/24/2017		31.95	-4.07
	6/2/2017		30.93	-3.05

Table 2
Groundwater Elevations
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Location	Monitoring Date[1]	Top of Casing Elevation (feet NAVD88)[2]	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
FMW-3D (continued)	6/6/2017	27.88	30.38	-2.50
	6/13/2017		31.67	-3.79
	6/27/2017		32.76	-4.88
	6/30/2017		33.42	-5.54
	7/7/2017		34.47	-6.59
	7/14/2017		33.83 [4]	-5.95 [4]
	7/20/2017		32.99	-5.11
	7/31/2017		32.53	-4.65
	8/9/2017		32.02	-4.14
	8/18/2017		32.10	-4.22
	8/23/2017		31.65	-3.77
	8/24/2017		31.50	-3.62
	8/30/2017		31.41	-3.53
	9/12/2017		31.77	-3.89
	9/29/2017		31.58	-3.70
	10/25/2017		29.21	-1.33
	10/27/2017		29.17	-1.29
	11/6/2017		25.30	2.58
	11/10/2017		25.74	2.14
	11/16/2017		23.40	4.48
	11/29/2017		20.93	6.95
	12/4/2017		20.35	7.53
	12/18/2017		19.06	8.82
	1/4/2018		13.97	13.91
GEI-2	3/24/2017	29.38	10.96	18.42
	4/14/2017		9.63	19.75
	4/17/2017		10.95	18.43
	4/18/2017		23.75	5.63
	4/19/2017		14.68	14.70
	7/31/2017		35.96	-6.58
	8/9/2017		35.73	-6.35
	8/18/2017		36.00	-6.62
	8/23/2017		34.89	-5.51
	8/24/2017		34.69	-5.31
	8/30/2017		34.12	-4.74
	9/12/2017		34.87	-5.49
	9/27/2017		34.84	-5.46
	9/29/2017		34.46	-5.08
	10/25/2017		32.44	-3.06
	10/27/2017		32.16	-2.78
	11/10/2017		30.83	-1.45
	1/4/2018		15.23	14.15

Table 2
Groundwater Elevations
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Location	Monitoring Date[1]	Top of Casing Elevation (feet NAVD88)[2]	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
IA-1	4/14/2017	32.59	14.41	18.18
	4/17/2017		14.29	18.30
	4/18/2017		24.23	8.36
	4/19/2017		17.92	14.67
	4/27/2017		24.19	8.40
	5/4/2017		37.24	-4.65
	5/12/2017		38.21	-5.62
	5/15/2017		38.47	-5.88
	5/24/2017		43.65	-11.06
	6/2/2017		44.02	-11.43
	6/6/2017		43.72	-11.13
	6/13/2017		44.75	-12.16
	6/27/2017		46.29	-13.70
	6/30/2017		45.97	-13.38
	7/7/2017		47.24	-14.65
	7/14/2017		41.97 [4]	-9.38 [4]
	7/17/2017		43.10	-10.51
	7/18/2017		43.20	-10.61
	7/19/2017		42.99	-10.40
	7/20/2017		42.87	-10.28
	7/31/2017		42.69	-10.10
	8/9/2017		42.81	-10.22
	8/18/2017		42.69	-10.10
	8/23/2017		40.89	-8.30 [5]
	8/24/2017		40.89	-8.30
	8/30/2017		40.85	-8.26
	9/12/2017		40.92	-8.33
	9/27/2017		40.85	-8.26
	9/29/2017		40.23	-7.64
	10/5/2017		40.08	-7.49
	10/24/2017		35.99	-3.40
	10/25/2017		36.16	-3.57
	10/26/2017		38.29	-5.70
	10/27/2017		39.29	-6.70
	10/30/2017		37.13	-4.54
	10/31/2017		37.80	-5.21

Table 2
Groundwater Elevations
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Location	Monitoring Date[1]	Top of Casing Elevation (feet NAVD88)[2]	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
IA-1 (continued)	11/6/2017	32.59	37.40	-4.81
	11/10/2017		37.37	-4.78
	11/16/2017		30.60	1.99
	11/17/2017		30.51	2.08
	11/20/2017		29.10	3.49
	11/29/2017		27.53	5.06
	12/5/2017		26.71	5.88
	12/8/2017		26.28	6.31
	12/18/2017		25.42	7.17
IA-2	4/14/2017	31.72	13.58	18.14
	4/17/2017		13.52	18.20
	4/18/2017		42.50	-10.78
	4/19/2017		17.00	14.72
	4/27/2017		36.55	-4.83
	5/4/2017		39.01	-7.29
	5/12/2017		39.86	-8.14
	5/15/2017		40.16	-8.44
	5/24/2017		45.77	-14.05
	6/2/2017		45.99	-14.27
	6/6/2017		45.75	-14.03
	6/13/2017		47.32	-15.60
	6/27/2017		48.26	-16.54
	6/30/2017		47.82	-16.10
	7/7/2017		49.82	-18.10
	7/14/2017		40.79 [4]	-9.07 [4]
	7/17/2017		42.65	-10.93
	7/18/2017		42.36	-10.64
	7/19/2017		41.89	-10.17
	7/20/2017		41.76	-10.04
	7/31/2017		41.64	-9.92
	8/9/2017		41.45	-9.73
	8/18/2017		41.66	-9.94
	8/23/2017		40.02	-8.30 [5]
	8/24/2017		40.02	-8.30
	8/30/2017		40.05	-8.33
	9/12/2017		40.16	-8.44
	9/27/2017		40.30	-8.58
	9/29/2017		39.43	-7.71
	10/5/2017		39.33	-7.61
	10/24/2017		35.08	-3.36

Table 2
Groundwater Elevations
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Location	Monitoring Date[1]	Top of Casing Elevation (feet NAVD88)[2]	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
IA-2 (continued)	10/25/2017	31.72	35.35	-3.63
	10/26/2017		34.60	-2.88
	10/27/2017		34.80	-3.08
	10/30/2017		32.40	-0.68
	10/31/2017		32.12	-0.40
	11/6/2017		33.60	-1.88
	11/10/2017		33.73	-2.01
	11/16/2017		31.00	0.72
	11/17/2017		30.20	1.52
	11/20/2017		29.53	2.19
	11/29/2017		27.77	3.95
	12/5/2017		27.02	4.70
	12/8/2017		26.61	5.11
	12/18/2017		25.81	5.91
IA-3	4/14/2017	31.25	12.92	18.33
	4/17/2017		12.80	18.45
	4/18/2017		23.09	8.16
	4/19/2017		16.71	14.54
	4/27/2017		38.33	-7.08
	5/4/2017		36.37	-5.12
	5/12/2017		37.25	-6.00
	5/15/2017		37.51	-6.26
	5/24/2017		43.10	-11.85
	6/2/2017		43.05	-11.80
	6/6/2017		43.00	-11.75
	6/13/2017		44.71	-13.46
	6/27/2017		43.77	-12.52
	6/30/2017		43.62	-12.37
	7/7/2017		46.79	-15.54
	7/14/2017		40.38 [4]	-9.13 [4]
	7/17/2017		43.05	-11.80
	7/18/2017		42.14	-10.89
	7/19/2017		41.73	-10.48
	7/20/2017		41.50	-10.25
	7/31/2017		41.33	-10.08
	8/9/2017		41.28	-10.03
	8/18/2017		41.50	-10.25
	8/23/2017		39.75	-8.50 [5]
	8/24/2017		39.55	-8.30
	8/30/2017		39.49	-8.24
	9/12/2017		39.68	-8.43

Table 2
Groundwater Elevations
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Location	Monitoring Date[1]	Top of Casing Elevation (feet NAVD88)[2]	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
IA-3 (continued)	9/27/2017	31.25	39.85	-8.60
	9/29/2017		38.89	-7.64
	10/5/2017		38.85	-7.60
	10/24/2017		43.62	-12.37
	10/25/2017		43.94	-12.69
	10/26/2017		37.72	-6.47
	10/27/2017		37.85	-6.60
	10/30/2017		34.40	-3.15
	10/31/2017		34.09	-2.84
	11/6/2017		41.56	-10.31
	11/10/2017		40.85	-9.60
	11/16/2017		39.09	-7.84
	11/17/2017		38.38	-7.13
	11/20/2017		37.89	-6.64
	11/29/2017		34.71	-3.46
	12/5/2017		34.03	-2.78
	12/8/2017		33.28	-2.03
	12/18/2017		32.55	-1.30
IA-4	4/14/2017	31.16	12.72	18.44
	4/17/2017		12.81	18.35
	4/18/2017		20.08	11.08
	4/19/2017		16.11	15.05
	4/27/2017		35.40	-4.24
	5/4/2017		36.64	-5.48
	6/2/2017		43.29	-12.13
	6/6/2017		43.37	-12.21
	6/13/2017		44.30	-13.14
	6/27/2017		35.32	-4.16
	6/30/2017		34.90	-3.74
	7/7/2017		46.29	-15.13
	7/14/2017		40.44 [4]	-9.28 [4]
	7/17/2017		42.35	-11.19
	7/18/2017		41.79	-10.63
	7/19/2017		41.61	-10.45
	7/20/2017		41.49	-10.33
	7/31/2017		41.39	-10.23
	8/9/2017		41.23	-10.07
	8/18/2017		41.99	-10.83

Table 2
Groundwater Elevations
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Location	Monitoring Date[1]	Top of Casing Elevation (feet NAVD88)[2]	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
IA-4 (continued)	8/23/2017	31.16	39.64	-8.48 [5]
	8/24/2017		39.41	-8.25
	8/30/2017		39.48	-8.32
	9/12/2017		39.62	-8.46
	9/27/2017		39.79	-8.63
	9/29/2017		38.74	-7.58
	10/5/2017		38.74	-7.58
	10/24/2017		32.53	-1.37
	10/25/2017		32.81	-1.65
	10/26/2017		35.17	-4.01
	10/27/2017		35.31	-4.15
	10/30/2017		31.74	-0.58
	10/31/2017		31.78	-0.62
	11/6/2017		30.51	0.65
	11/10/2017		30.80	0.36
	11/16/2017		28.99	2.17
	11/17/2017		28.93	2.23
	11/20/2017		27.66	3.50
	11/29/2017		26.03	5.13
	12/5/2017		25.32	5.84
	12/8/2017		24.91	6.25
	12/18/2017		24.22	6.94

NOTES:

[1]Interim Action System pumping began April 17, 2017 with pumping from Interim Action well IA-2. Pumping from all four Interim Action wells began April 19, 2017 (see Table 1).

[2]In feet above mean sea level.

[3]In feet below top of well casing.

[4]Total system discharge adjusted from approximately 290 gallons per minute (gpm) to about 180 gpm starting July 14, 2017.

[5]Total system discharge adjusted from approximately 180 gpm to about 160 gpm starting August 23, 2017.

NAVD88 = North American Vertical Datum of 1988

Table 3
HVOC Analytical Results for Groundwater Samples
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]				
			PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
FMW-131	3/24/2017	F-MW-131-032417	< 0.20	< 0.20	**39**	< 0.20	< 0.20
	6/23/2017	FMW-131_062317	< 0.20	< 0.20	3.6	< 0.20	**0.26**
	12/18/2017	FMW-131-121817	< 0.20	< 0.20	0.61	< 0.20	< 0.20
FMW-3D	3/24/2017	F-MW-3D-032417	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/23/2017	FMW-3D_062317	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MTCA Cleanup Levels for Groundwater[2]			**5**	**5**	**16[3]**	**160[3]**	**0.2**

NOTES:

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

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

[1]Analyzed by U.S. Environmental Protection Agency Method 8260C.

[2]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 2013, unless otherwise noted.

[3]Washington State Model Toxics Control Act Cleanup Regulation Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx

HVOC = halogenated volatile organic compound

PCE = tetrachloroethene

TCE = trichloroethene

Table 4
HVOC Analytical Results for Wastewater Samples
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]				
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Influent to Wastewater Treatment System from Interim Action System								
INF	Farallon	4/17/2017	INF-041717	< 0.40	< 0.40	**39**	< 0.40	**20**
INF	Farallon	4/17/2017	INF2-041717	< 0.40	< 0.40	**42**	< 0.40	**25**
INF	Farallon	4/19/2017	INF-041917	< 0.40	< 0.40	**41**	< 0.40	**27**
INF	Farallon	4/27/2017	INF-042717	< 0.40	< 0.40	**52**	< 0.40	**39**
INF	Farallon	5/4/2017	INF-050417	< 0.20	< 0.20	**22**	< 0.20	**6.1**
INF	Farallon	5/12/2017	INF_051217	< 0.20	< 0.20	**37**	< 0.20	**32**
INF	Farallon	5/18/2017	INF-051817	< 0.20	< 0.20	**39**	< 0.20	**33**
INF	Farallon	5/23/2017	INF-052317	< 0.40	< 0.40	**36**	< 0.40	**35**
INF	Farallon	6/2/2017	INF-060217	< 0.40	< 0.40	**41**	< 0.40	**35**
INF	Farallon	6/15/2017	INF_061517	< 0.40	< 0.40	**49**	< 0.40	**41**
INF	Farallon	6/27/2017	INF-062717	< 0.40	< 0.40	**38**	< 0.40	**39**
INF	Farallon	7/7/2017	INF-070717	< 0.40	< 0.40	**49**	< 0.40	**32**
INF	Farallon	7/14/2017	INF-071417	< 0.40	< 0.40	**50**	< 0.40	**25**
INF	Farallon	7/20/2017	INF-072017	< 0.40	< 0.40	**52**	< 0.40	**32**
INF	Farallon	7/31/2017	INF-073117	< 0.40	< 0.40	**46**	< 0.40	**23**
INF	Farallon	8/9/2017	INF-080917	< 0.20	< 0.20	**50**	< 0.20	**30**
INF	Farallon	8/18/2017	INF-081817	< 0.40	< 0.40	**43**	< 0.40	**24**
INF	Farallon	8/30/2017	INF-083017	< 0.40	< 0.40	**42**	< 0.40	**24**
INF	Farallon	9/12/2017	INF-091217	< 0.40	< 0.40	**48**	< 0.40	**24**
INF	Farallon	9/27/2017	INF-092717	< 0.40	< 0.40	**44**	< 0.40	**23**
INF	Farallon	10/5/2017	INF-100517	< 0.40	< 0.40	**48**	< 0.40	**25**
INF	Farallon	10/24/2017	INF-102417	< 0.40	< 0.40	**72**	< 0.40	**47**
INF	Farallon	12/18/2017	INF-121817	< 0.40	< 0.40	**66**	< 0.40	**26**
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**0.2**

Table 4
HVOC Analytical Results for Wastewater Samples
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]				
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Effluent - East Aeration Tank								
EFF_E	Farallon	4/17/2017	EFF1-041717	< 0.20	< 0.20	**23**	< 0.20	**9.3**
EFF_E	Farallon	4/19/2017	EFF1-041917	< 0.20	< 0.20	13	< 0.20	**2.9**
EFF_E	Farallon	4/27/2017	EFF1-042717	< 0.20	< 0.20	**28**	< 0.20	**8.7**
EFF_E	Farallon	5/4/2017	EFF-E-050417	< 0.20	< 0.20	**25**	< 0.20	**8.1**
EFF_E	Farallon	5/12/2017	EFF_E_051217	< 0.20	< 0.20	**18**	< 0.20	**5.7**
EFF_E	Farallon	5/18/2017	EFFE-051817	< 0.20	< 0.20	**19**	< 0.20	**6.2**
EFF_E	Farallon	5/23/2017	EFF-E-052317	< 0.20	< 0.20	**17**	< 0.20	**6.5**
EFF_E	Farallon	6/2/2017	EFF-E-060217	< 0.20	< 0.20	**22**	< 0.20	**7.5**
EFF_E	Farallon	6/15/2017	EFF_E_061517	< 0.20	< 0.20	**25**	< 0.20	**8.1**
EFF_E	Farallon	6/27/2017	EFF-E-062717	< 0.20	< 0.20	**17**	< 0.20	**5.8**
EFF_E	Farallon	7/7/2017	EFF-E-070717	< 0.20	< 0.20	**25**	< 0.20	**6.5**
EFF_E	Farallon	7/14/2017	EFF-E-071417	< 0.20	< 0.20	13	< 0.20	**2.2**
EFF_E	Farallon	7/20/2017	EFF-E-072017	< 0.20	< 0.20	**21**	< 0.20	**4.8**
EFF_E	Farallon	7/31/2017	EFF-E-073117	< 0.20	< 0.20	**19**	< 0.20	**3.8**
EFF_E	Farallon	8/9/2017	EFF-E-080917	< 0.20	< 0.20	**19**	< 0.20	**3.9**
EFF_E	Farallon	8/18/2017	EFF-E-081817	< 0.20	< 0.20	**22**	0.69	**2.9**
EFF_E	Farallon	8/30/2017	EFF-E-083017	< 0.20	< 0.20	14	1.2	**2.1**
EFF_E	Farallon	9/12/2017	EFF-E-091217	< 0.20	< 0.20	**17**	< 0.20	**2.9**
EFF_E	Farallon	9/27/2017	EFF-E-092717	< 0.20	< 0.20	16	< 0.20	**2.9**
EFF_E	Farallon	10/5/2017	EFF-E-100517	< 0.20	< 0.20	16	< 0.20	**2.8**
EFF_E	Farallon	10/24/2017	EFF-E-102417	< 0.20	< 0.20	**21**	< 0.20	**4.6**
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**0.2**

Table 4
HVOC Analytical Results for Wastewater Samples
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]				
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Effluent - West Aeration Tank								
EFF_W	Farallon	4/17/2017	EFF2-041717	< 0.20	< 0.20	**17**	< 0.20	**3.9**
EFF_W	Farallon	4/19/2017	EFF2-041917	< 0.20	< 0.20	15	< 0.20	**3.1**
EFF_W	Farallon	4/27/2017	EFF2-042717	< 0.20	< 0.20	**17**	< 0.20	**3.8**
EFF_W	Farallon	5/4/2017	EFF-W-050417	< 0.20	< 0.20	**20**	< 0.20	**5.5**
EFF_W	Farallon	5/12/2017	EFF_W_051217	< 0.20	< 0.20	14	< 0.20	**4.0**
EFF_W	Farallon	5/18/2017	EFFW-051817	< 0.20	< 0.20	14	< 0.20	**3.8**
EFF_W	Farallon	5/23/2017	EFF-W-052317	< 0.20	< 0.20	13	< 0.20	**4.1**
EFF_W	Farallon	6/2/2017	EFF-W-060217	< 0.20	< 0.20	15	< 0.20	**4.1**
EFF_W	Farallon	6/15/2017	EFF_W_061517	< 0.20	< 0.20	**17**	< 0.20	**4.8**
EFF_W	Farallon	6/27/2017	EFF-W-062717	< 0.20	< 0.20	10	< 0.20	**3.0**
EFF_W	Farallon	7/7/2017	EFF-W-070717	< 0.20	< 0.20	16	< 0.20	**3.6**
EFF_W	Farallon	7/14/2017	EFF-W-071417	< 0.20	< 0.20	13	< 0.20	**1.4**
EFF_W	Farallon	7/20/2017	EFF-W-072017	< 0.20	< 0.20	**20**	< 0.20	**4.4**
EFF_W	Farallon	7/31/2017	EFF-W-073117	< 0.20	< 0.20	13	< 0.20	**2.0**
EFF_W	Farallon	8/9/2017	EFF-W-080917	< 0.20	< 0.20	**20**	< 0.20	**4.1**
EFF_W	Farallon	8/18/2017	EFF-W-081817	< 0.20	< 0.20	10	1.2	**1.4**
EFF_W	Farallon	8/30/2017	EFF-W-083017	< 0.20	< 0.20	10	0.94	**1.3**
EFF_W	Farallon	9/12/2017	EFF-W-091217	< 0.20	< 0.20	12	< 0.20	**1.9**
EFF_W	Farallon	9/27/2017	EFF-W-092717	< 0.20	< 0.20	16	< 0.20	**2.8**
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**0.2**

Table 4
HVOC Analytical Results for Wastewater Samples
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1] PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Effluent - West Aeration Tank (continued)								
EFF_W	Farallon	10/5/2017	EFF-W-100517	< 0.20	< 0.20	11	< 0.20	**1.7**
EFF_W	Farallon	10/24/2017	EFF-W-102417	< 0.20	< 0.20	**22**	< 0.20	**4.9**
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**0.2**

NOTES:

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

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

HVOC = halogenated volatile organic compound

PCE = tetrachloroethene

TCE = trichloroethene

[1]Analyzed by U.S. Environmental Protection Agency Method 8260C.

[2]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 2013, unless otherwise noted.

[3]MTCA Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx

APPENDIX A
INTERCEPTION WELL DESIGN

INTERIM ACTION COMPLETION REPORT
Groundwater Interception System
700 Dexter HVOC Plume Interim Action
Block 37 Property
630 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-044

NOTES:

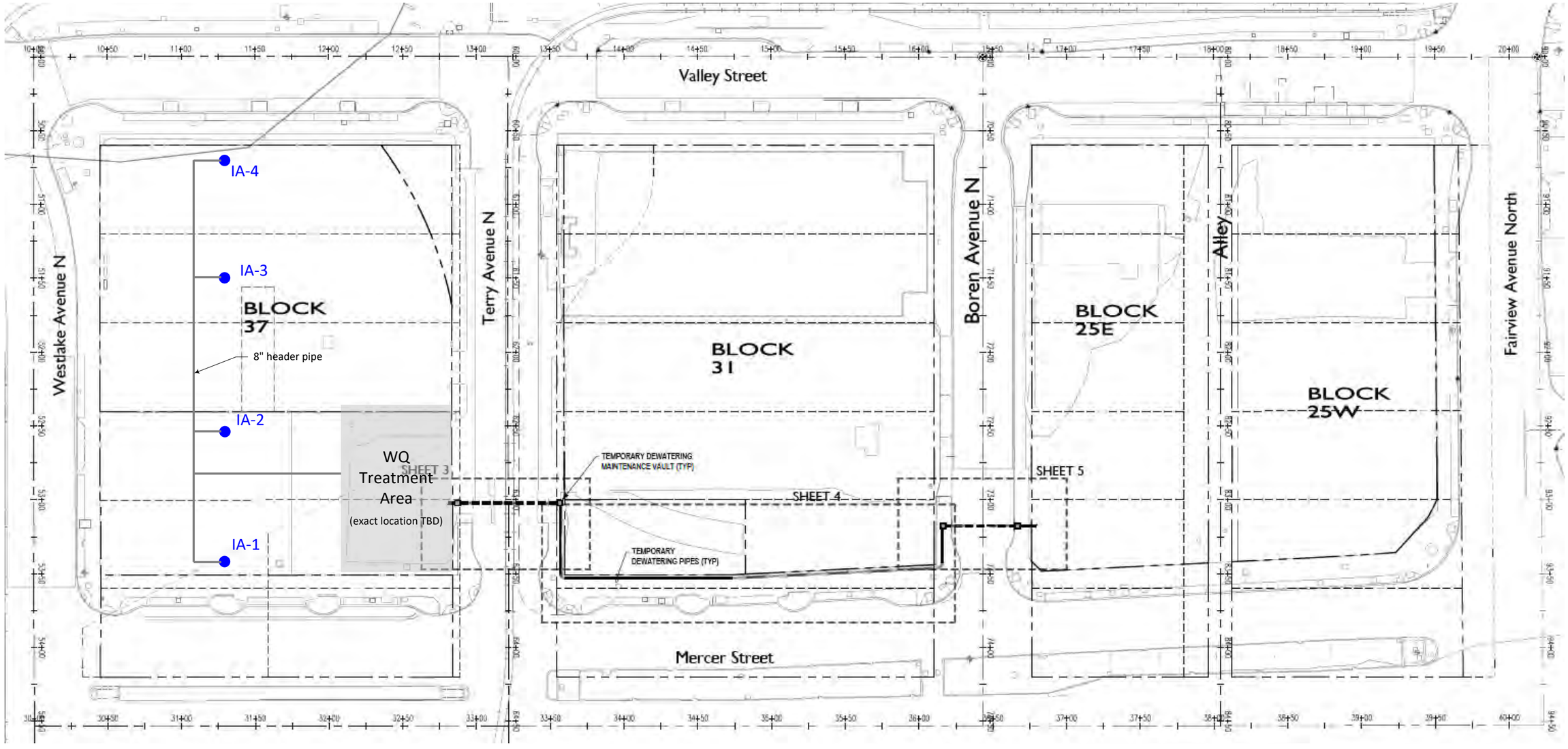
1) Overview: The Interim Action Interception Wells proposed in this plan will be installed for control of the 700 Dexter HVOC Plume. Geoengineers, with input from Farallon, evaluated the 700 Dexter HVOC Plume and hydrogeologic conditions and Farallon provided Middour Consulting LLC with the number and location of the interception wells, the well screen interval, and pumping rates to provide plume control, to the extent practicable.

2) Interception wells shall be constructed as "resource protection wells" ("remediation wells") per WAC 173-160 with a design life of at least 3 years.

3) For bidding purposes assume and/or provide the following:
- Provide proposed drilling method and equipment
- Provide proposed well development method(s)
- Provide power requirements for submersible turbine pumps
- Assume a minimum of 4 hrs for well development per well
- Assume 400 lineal feet of 8-inch-diameter header pipe
- Assume 480V, 3-phase power drop on site

4) Refer to Figure 2 for a plan view layout of the interception wells.

5) Refer to Figure 3 for details regarding well construction and installation details.



NOTES:

1) Locations of the interception wells are approximate; actual locations will be field located and staked.

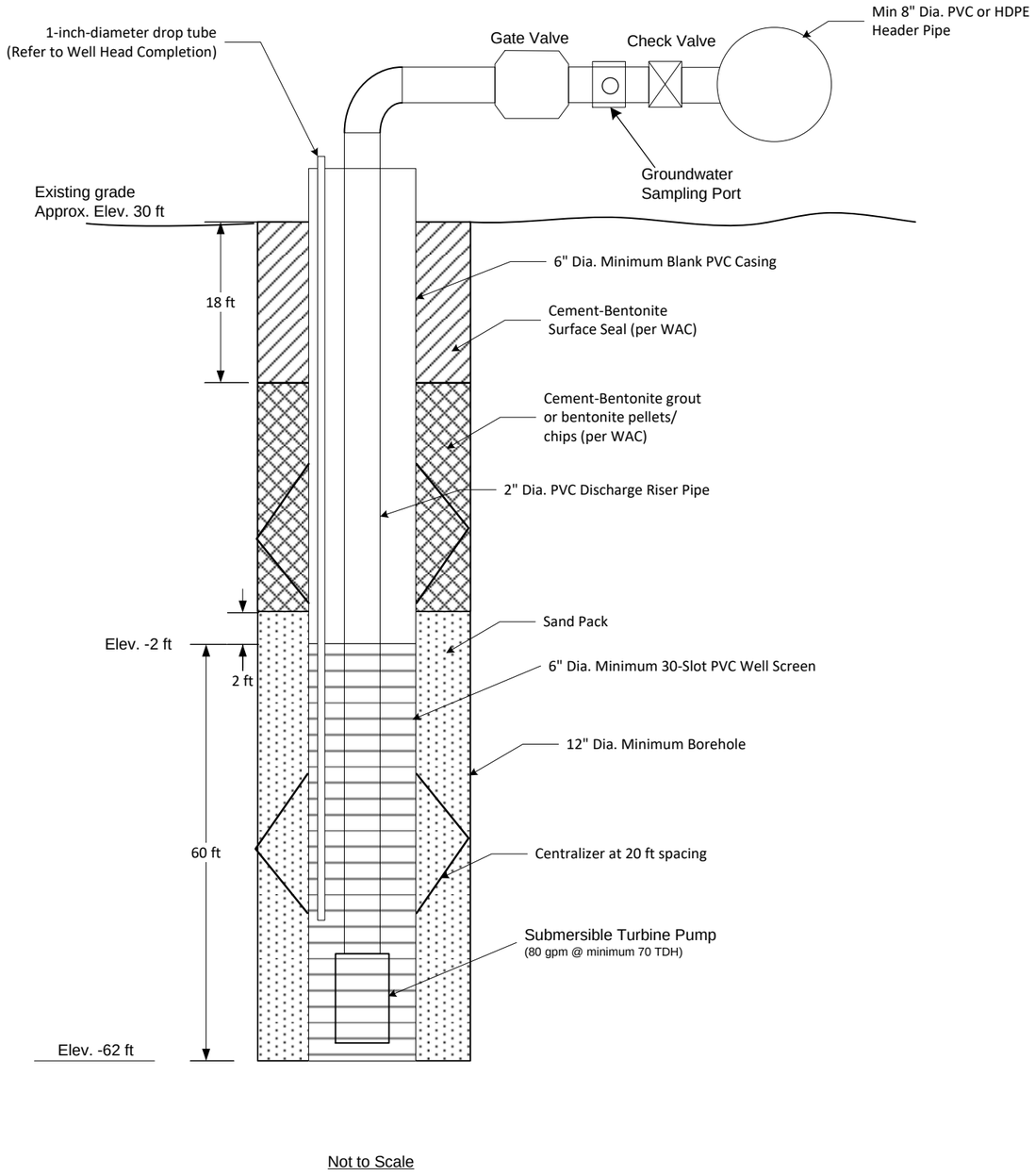
2) For bidding purposes assume 400 LF of 8-inch-diameter header pipe; connections to treatment system to be performed by others.

3) See Figure 3 for interception well construction details.

MIDDOUR CONSULTING LLC
groundwater control for underground construction

● INTERIM ACTION INTERCEPTION WELL LOCATION

FIGURE 2
Interception Well Layout Plan
INTERIM ACTION INTERCEPTION WELL PLAN | Seattle, WA
Project No. 16048001.01 | November 2, 2016



Not to Scale

NOTES:

Interim Action Interception Wells: Boreholes shall be drilled using bucket auger or rotary (air or wash) drilling methods and should be a minimum of 12-inch-diameter. Well casings and screen should be a minimum of 6-inch diameter Schedule 40 PVC. The bottom of the wells should be constructed to elevation -62 feet. The bottom 60 feet of the well should be constructed with well screen and based on the visual descriptions from the soil boring logs, well screens should consist of 30-slot screen size. The proposed locations of the interception wells are provided on Figure 1 and well construction details are shown on this figure.

Well Screen: The slot size shall be 0.030 and shall consist of a minimum of 17 in^2 of open area per lineal foot of well screen.

Sand Pack: The sand pack shall consist of a gradation similar to or in between a 16 x 30 sand or 12 x 20 sand. Based on previous projects with similar aquifer soils, this sand pack in combination with 30-slot well screen should optimize retention of the formation and provide the necessary well yield. The gradations of the proposed sand packs are listed in the table below. Well and seal construction shall be consistent with WAC 173-160.

Well Head Completion: Well head constructed to allow for manual water level measurements and/or pressure transducer installation via minimum 1-inch-diameter PVC drop tube installed to elevation -52 feet. Assume above grade well completion with below grade header pipe (trenching to be provided by others).

Development: Each interception well shall be developed upon completion. Development methods shall cause groundwater to flow into and out of the well screen; all sediment accumulated in the bottom of the well shall be removed. Development data shall be documented to demonstrate that additional development would produce limited improvement.

Submersible Turbine Pumps: Pumps shall be capable of providing up to 80 gpm under 70 feet of total dynamic head (TDH).

Header and Conveyance Piping: The main header and conveyance piping shall be constructed using a minimum of 8-inch-diameter PVC or HDPE pipe. The piping configuration should be coordinated with Farallon and the water treatment contractor. Assume above grade well completion with below grade header pipe (trenching to be provided by others).

Investigation-Derived Wastes (IDW): IDW such as drill cuttings and waste water generated during development shall be on-site in appropriately labeled containers until profiled for disposal or treatment by others.

Power Supply: To be determined with design finalization.

Sand Pack Gradations

Sieve Size No.	Grain Size (mm)	Grain Size (thousandths)	16 x 30 % Finer	16 x 30 % Retained	12 x 20 % Finer	12 x 20 % Retained
No. 12	1.68	66.1	99	1	96	4
No. 16	1.19	46.9	94	6	20	80
No. 20	0.841	33.1	22	78	1	99
No. 30	0.595	23.4	3	97		

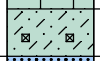
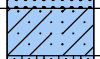
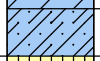
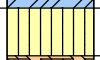
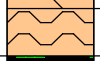
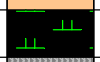
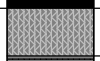
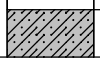
APPENDIX B
INTERCEPTION WELL CONSTRUCTION LOGS

INTERIM ACTION COMPLETION REPORT
Groundwater Interception System
700 Dexter HVOC Plume Interim Action
Block 37 Property
630 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-044

FARALLON CONSULTING

USCS Classification and Graphic Legend

Major Divisions			USCS Graphic Symbol	USCS Letter Symbol	Lithologic Description
Coarse-Grained Soil (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well graded GRAVEL, well graded GRAVEL with sand
				GP	Poorly graded GRAVEL, GRAVEL with sand
		GRAVEL WITH FINES (Appreciable amount of fines)		GP-GM	Poorly graded GRAVEL - GRAVEL with sand and silt
				GM	Silty GRAVEL
				GC	Clayey GRAVEL
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW	Well graded SAND
				SP	Poorly graded SAND
		SAND WITH FINES (Appreciable amount of fines)		SP-SM	Poorly graded SAND - silty SAND
				SM	Silty SAND
				SC	Clayey SAND
				SM-ML	SILT - Silty SAND
Fine-Grained Soil (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)			ML	SILT
				CL	CLAY
				OL	Organic SILT
	SILT AND CLAY (Liquid limit greater than 50)			MH	Inorganic SILT
				CH	Inorganic CLAY
				OH	Organic CLAY
		Highly Organic Soil		PT	Peat
OTHER MATERIALS	PAVEMENT			AC	Asphalt concrete
				CO	Concrete
	OTHER			RK	Bedrock
				WD	Wood Debris
				DB	Debris (Miscellaneous)
				PC	Portland cement

Legend

- Sample Interval
- G — Grab Sample Interval
- Water level at time of drilling
- Water level at time of sampling
- Blank Casing
- Screened Casing
- Cement Grout
- Bentonite
- Sand Pack
- Well Cap

_____ Solid line indicates sharp contact between units well defined.

_ _ _ _ _ _ _ Dashed line indicates gradational contact between units.

feet bgs = feet below ground surface
NE = Not Encountered
NA = Not Applicable
PID = Photoionization Detector
PN = Project Number
*ppm = parts per million total organic vapors in isobutylene equivalents using a 10.6 electron volt lamp
USCS = Unified Soil Classification System

Log of Boring: IA-1

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 0800	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1615	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	94.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-20.0': Poorly graded SAND (90% sand, 10% gravel), fine to medium sand, fine to coarse gravel, trace cobbles, soil logged by Danny Parker of Malcom Drilling.	SP							Cement
5										
10										
15										

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-1

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 0800	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1615	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	94.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
20		20.0-25.0': Poorly graded SAND (90% sand, 10% gravel), fine to medium sand, fine to coarse gravel, trace cobbles, wood debris, soil logged by Danny Parker of Malcom Drilling.	SP							Cement
25		25.0-28.0': SILT (100% silt), soil logged by Danny Parker of Malcom Drilling.	ML							
		28.0-39.0': Sandy SILT (percentage unknown), gray, soil logged by Danny Parker of Malcom Drilling.	ML							Bentonite
30										

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-1

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 0800	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1615	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	94.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
40		40.0-94.0': Silty SAND (percentage unknown), fine to medium sand, gray, wet, soil logged by Danny Parker of Malcom Drilling.	SM							PVC Sceen; Sand Pack

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

FARALLON CONSULTING

Log of Boring: IA-1

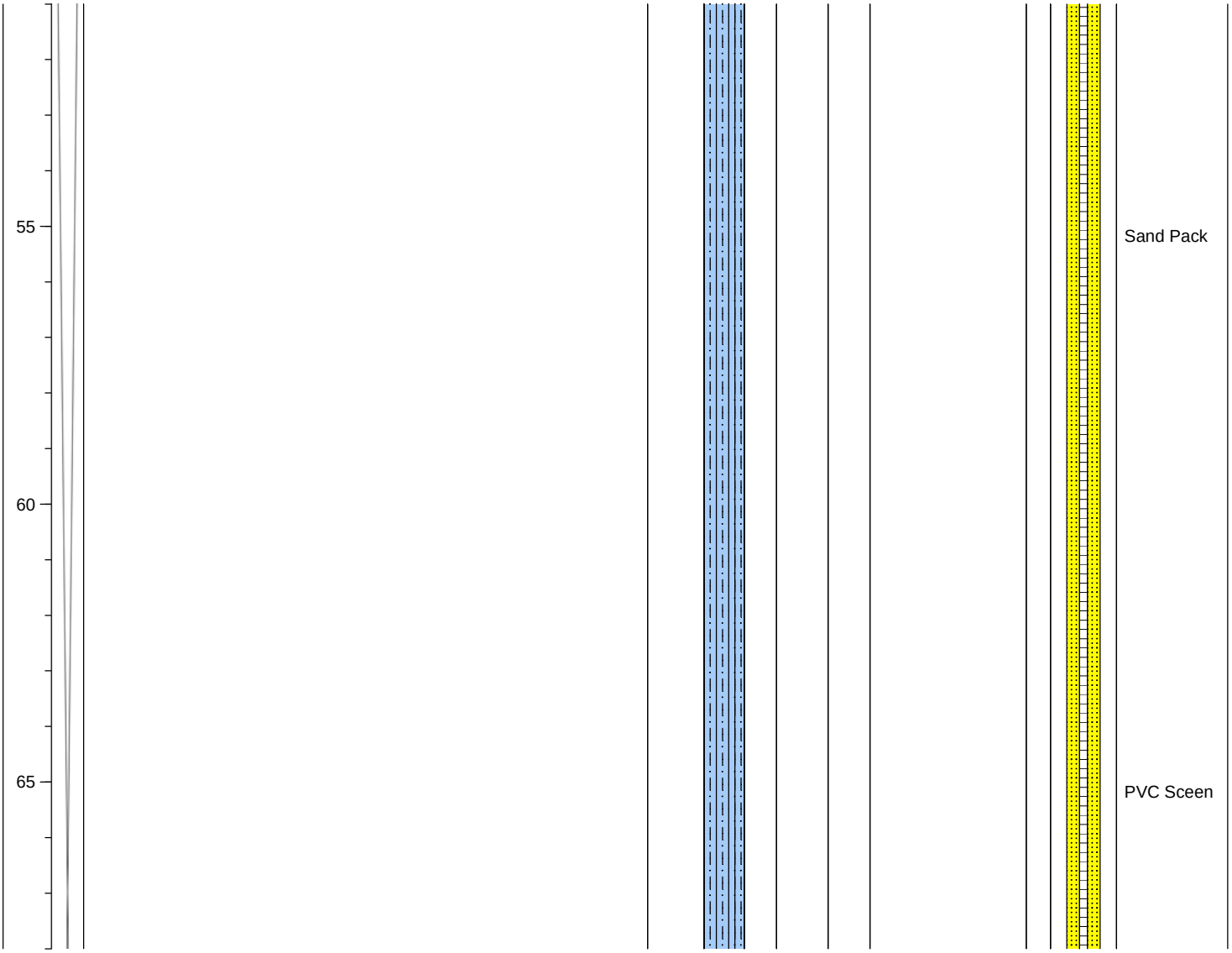
Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 0800	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1615	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	94.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details



Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

FARALLON CONSULTING

Log of Boring: IA-1

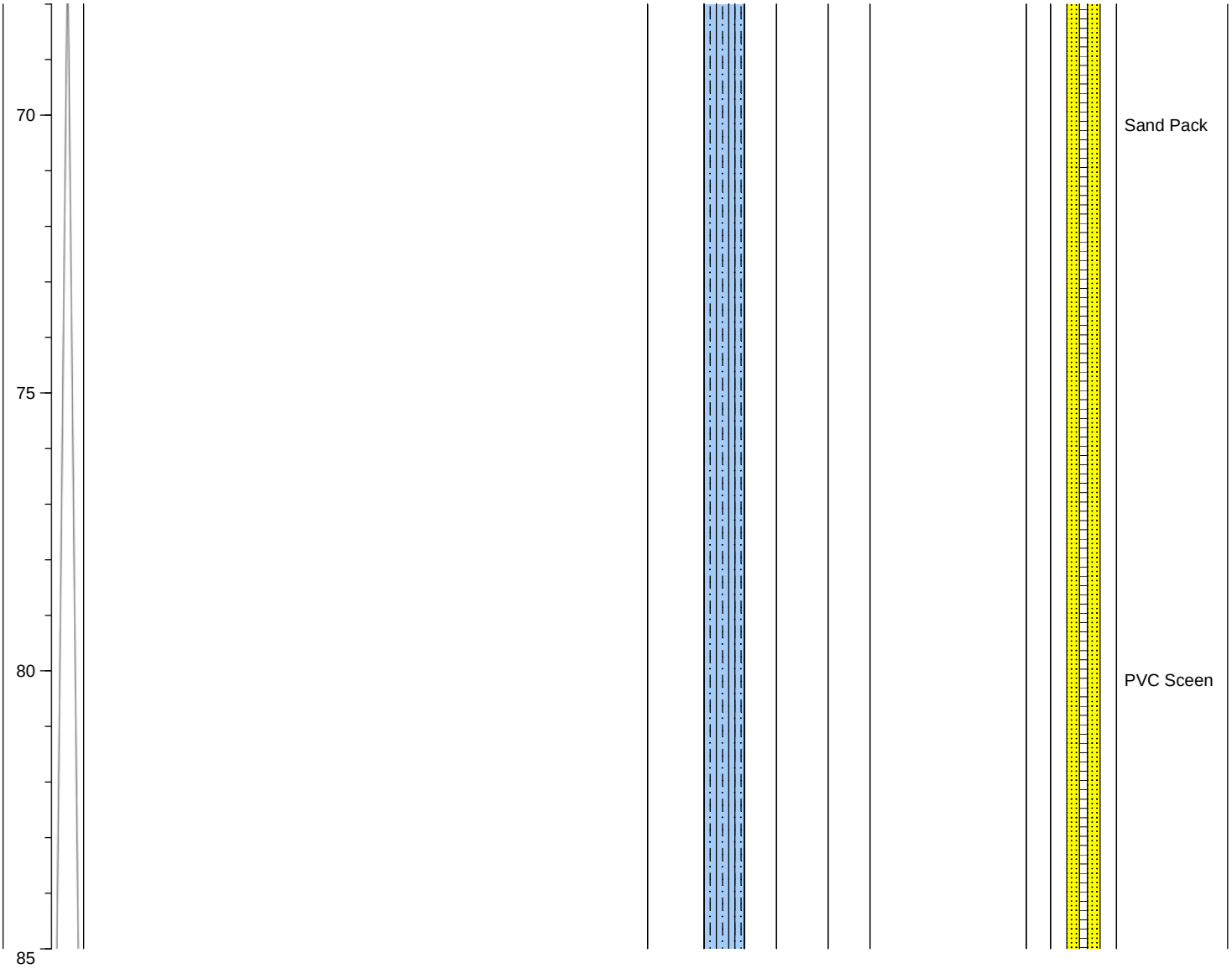
Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 0800	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1615	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	94.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details



Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

FARALLON CONSULTING

Log of Boring: IA-1

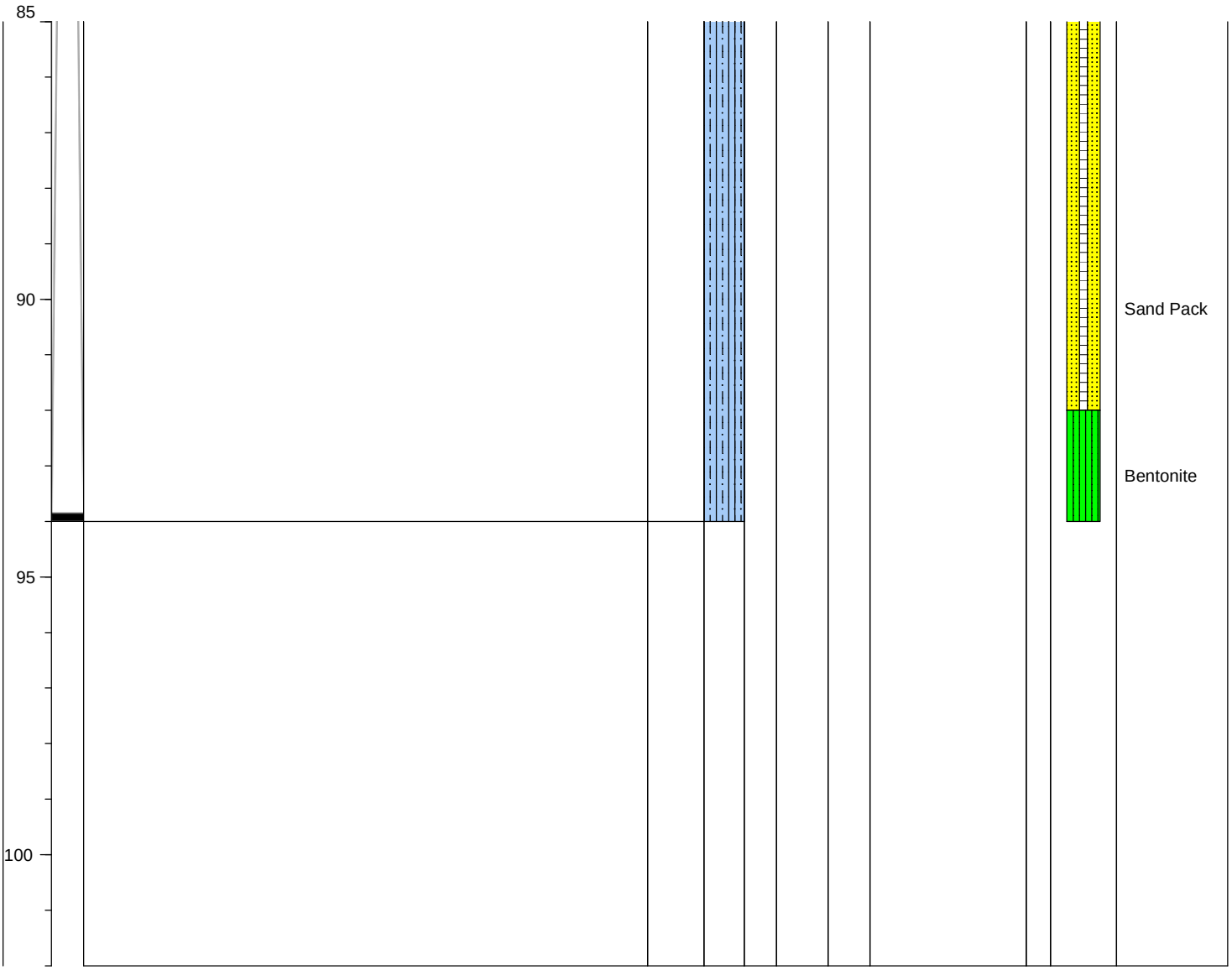
Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 0800	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1615	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	94.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details



Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-2

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 1050	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	96.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-15.0': Well-graded SAND with gravel (85% sand, 15% gravel), fine to coarse sand, fine to coarse gravel with cobbles, brownish gray, wet, no odor, no sheen, soil observed from auger cuttings.	SW							
15		15.0-20.0': Well-graded SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine gravel, gray, wet, no odor, no sheen, soil observed from auger cuttings.	SW-SM				0.3			Cement

Well Construction Information

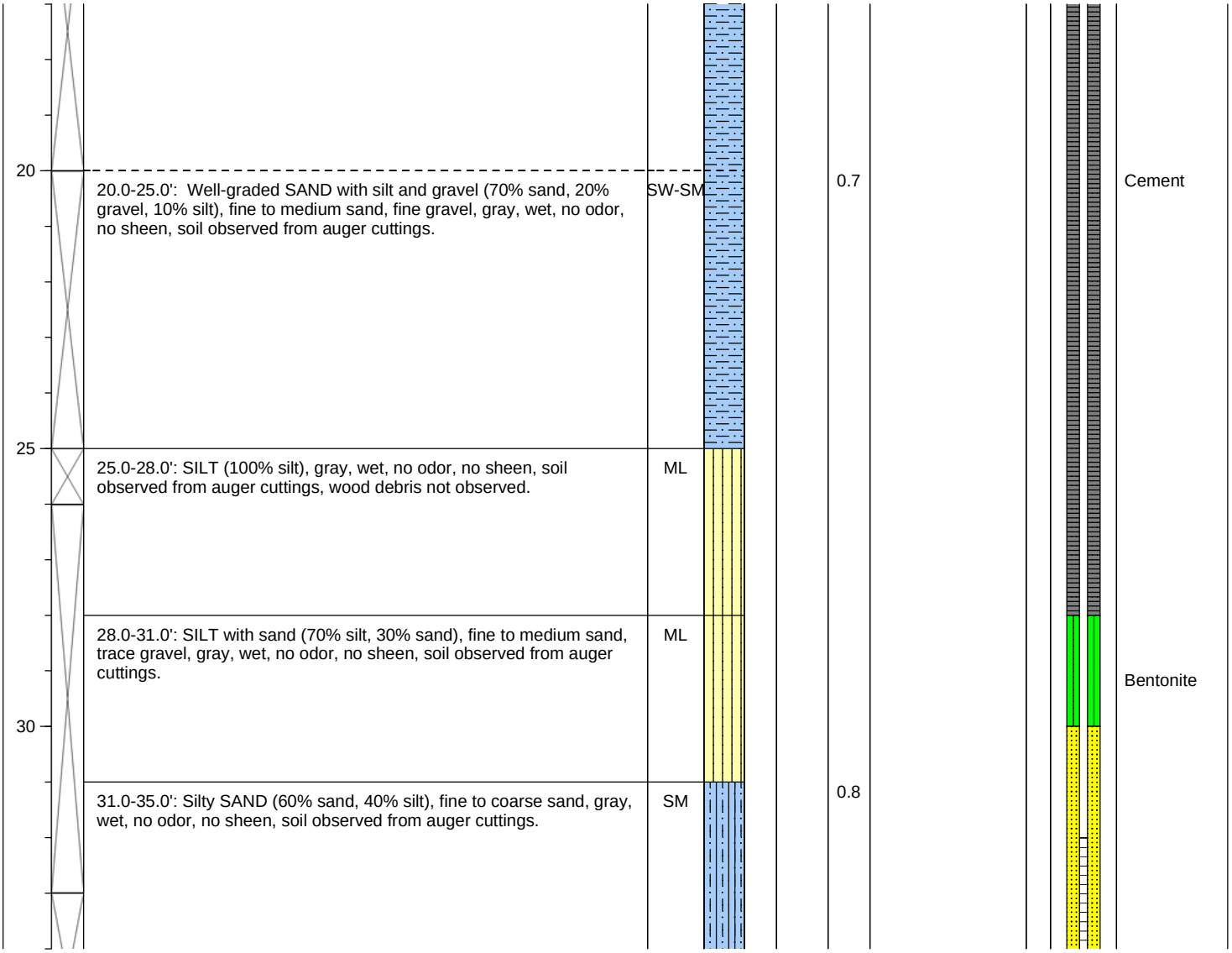
Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-2

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 1050	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	96.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
20	20.0-25.0': Well-graded SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine gravel, gray, wet, no odor, no sheen, soil observed from auger cuttings.	SW-SM			0.7		
25	25.0-28.0': SILT (100% silt), gray, wet, no odor, no sheen, soil observed from auger cuttings, wood debris not observed.	ML					
	28.0-31.0': SILT with sand (70% silt, 30% sand), fine to medium sand, trace gravel, gray, wet, no odor, no sheen, soil observed from auger cuttings.	ML					
30	31.0-35.0': Silty SAND (60% sand, 40% silt), fine to coarse sand, gray, wet, no odor, no sheen, soil observed from auger cuttings.	SM			0.8		



Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-2

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 1050	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	96.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
35		35.0-39.0': SILT with sand (70% silt, 30% sand), fine to medium sand, trace gravel, gray, saturated, no odor, no sheen, soil observed from auger cuttings.	ML				0.1			PVC Sceen
40		40.0-68.0': Well-graded SAND with silt (90% sand, 10% silt), fine to coarse sand, wet, gray, no odor, no sheen, soil observed from auger cuttings.	SW-SM				0.3 0.2			Sand Pack
45										
50										

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

FARALLON CONSULTING

Log of Boring: IA-2

Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 1050	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	96.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
55										Sand Pack
60							0.3			
65										PVC Sceen

Well Construction Information

Monument Type: Stickup 4.0' ags
Casing Diameter (inches): 12"
Screen Slot Size (inches): 0.030"
Screened Interval (ft bgs): 32.0-92.0'

Filter Pack: Glacier 80/700
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA, Y: NA

Log of Boring: IA-2

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 1050	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	96.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Lithologic Description	USCS	PID (ppm)	Boring/Well Construction Details
70	68.0-70.0': Silty SAND (60% sand, 40% silt), fine to coarse sand, light brown, wet, no odor, no sheen, soil observed from auger cuttings.	SM	0.4	
	70.0-77.0': Silty SAND (80% sand, 20% silt), fine to coarse sand, brownish gray, saturated, no odor, no sheen, soil observed from auger cuttings.	SM	0.2	Sand Pack
75	77.0-79.0': Well-graded GRAVEL with sand (80% gravel, 20% sand), fine to coarse gravel, fine to coarse sand, gray, wet, no odor, no sheen, soil observed from auger cuttings.	GW	0.4	
	79.0-81.0': Silty SAND (80% sand, 20% silt), fine to coarse sand, brownish gray, saturated, no odor, no sheen, soil observed from auger cuttings.	SM	0.4	
80	81.0-84.0': Well-graded GRAVEL with sand (80% gravel, 20% sand), fine to coarse gravel, fine to coarse sand, gray, wet, no odor, no sheen, soil observed from auger cuttings.	GW	0.3	PVC Sceen
	84.0-96.0': Silty SAND (80% sand, 20% silt), fine to coarse sand, trace gravel, gray, saturated, no odor, no sheen, soil observed from auger	SM	0.2	
85				

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-2

Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/2/17 @ 1050	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	96.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
85		cuttings.								
90										Sand Pack
95										Bentonite
100										

Well Construction Information

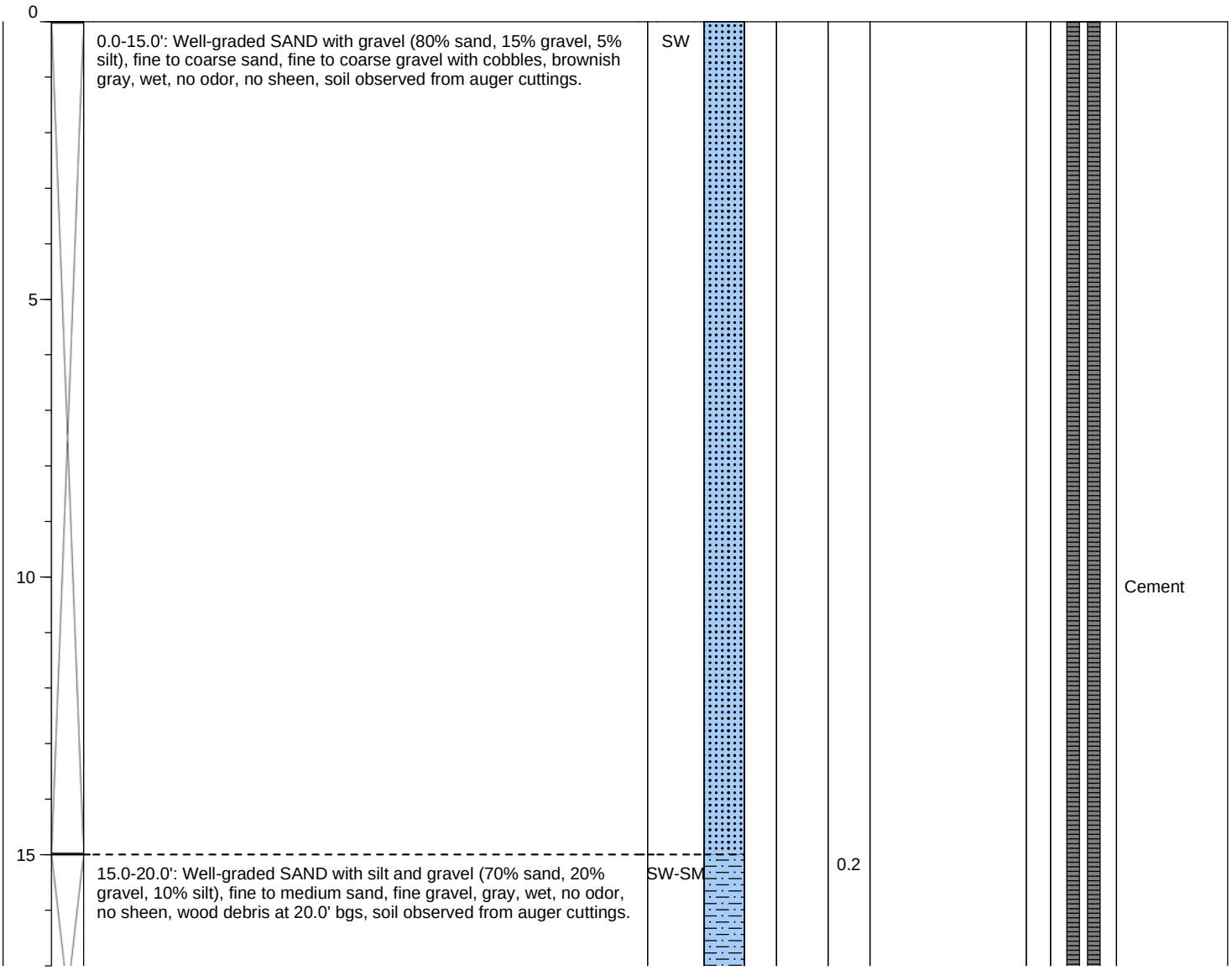
Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-3

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/3/17 @ 1150	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-15.0': Well-graded SAND with gravel (80% sand, 15% gravel, 5% silt), fine to coarse sand, fine to coarse gravel with cobbles, brownish gray, wet, no odor, no sheen, soil observed from auger cuttings.	SW							
15		15.0-20.0': Well-graded SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine gravel, gray, wet, no odor, no sheen, wood debris at 20.0' bgs, soil observed from auger cuttings.	SW-SM				0.2			



Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-3

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/3/17 @ 1150	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
20		20.0-25.0': Silty SAND (70% sand, 30% silt), fine to medium sand, gray, wet, no odor, no sheen, wood debris observed, soil observed from auger cuttings.	SM				0.7			Cement
25		25.0-26.0': SILT (100% silt), gray, wet, no odor, no sheen, wood debris not observed, soil observed from auger cuttings.	ML							
		26.0-33.0': Silty SAND (70% sand, 30% silt), fine to medium sand, gray, wet, no odor, no sheen, soil observed from auger cuttings.	SM				0.2			Bentonite
30		33.0-36.0': Silty SAND (80% sand, 20% silt), fine to coarse sand, gray, wet, no odor, no sheen, soil observed from auger cuttings.	SM				0.2			

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-3

Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/3/17 @ 1150	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
35							0.2			PVC Sceen
40		40.0-80.0': Well-graded SAND with silt (90% sand, 10% silt), fine to coarse sand, wet, gray, no odor, no sheen, soil observed from auger cuttings.	SW-SM				0.0			
45										Sand Pack
50										

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

FARALLON CONSULTING

Log of Boring: IA-3

Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/3/17 @ 1150	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
55							0.1			Sand Pack
60										
65										PVC Sceen

Well Construction Information

Monument Type: Stickup 4.0' ags
Casing Diameter (inches): 12"
Screen Slot Size (inches): 0.030"
Screened Interval (ft bgs): 32.0-92.0'

Filter Pack: Glacier 80/700
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA
Y: NA

Log of Boring: IA-3

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/3/17 @ 1150	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
70							0.1			Sand Pack
75										
80		80.0-87.0': Well-graded SAND with gravel (85% sand, 15% gravel), fine to coarse sand, fine to coarse gravel, gray, saturated, no odor, no sheen, soil observed from auger cuttings.	SW				0.1			PVC Sceen
85										

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-3

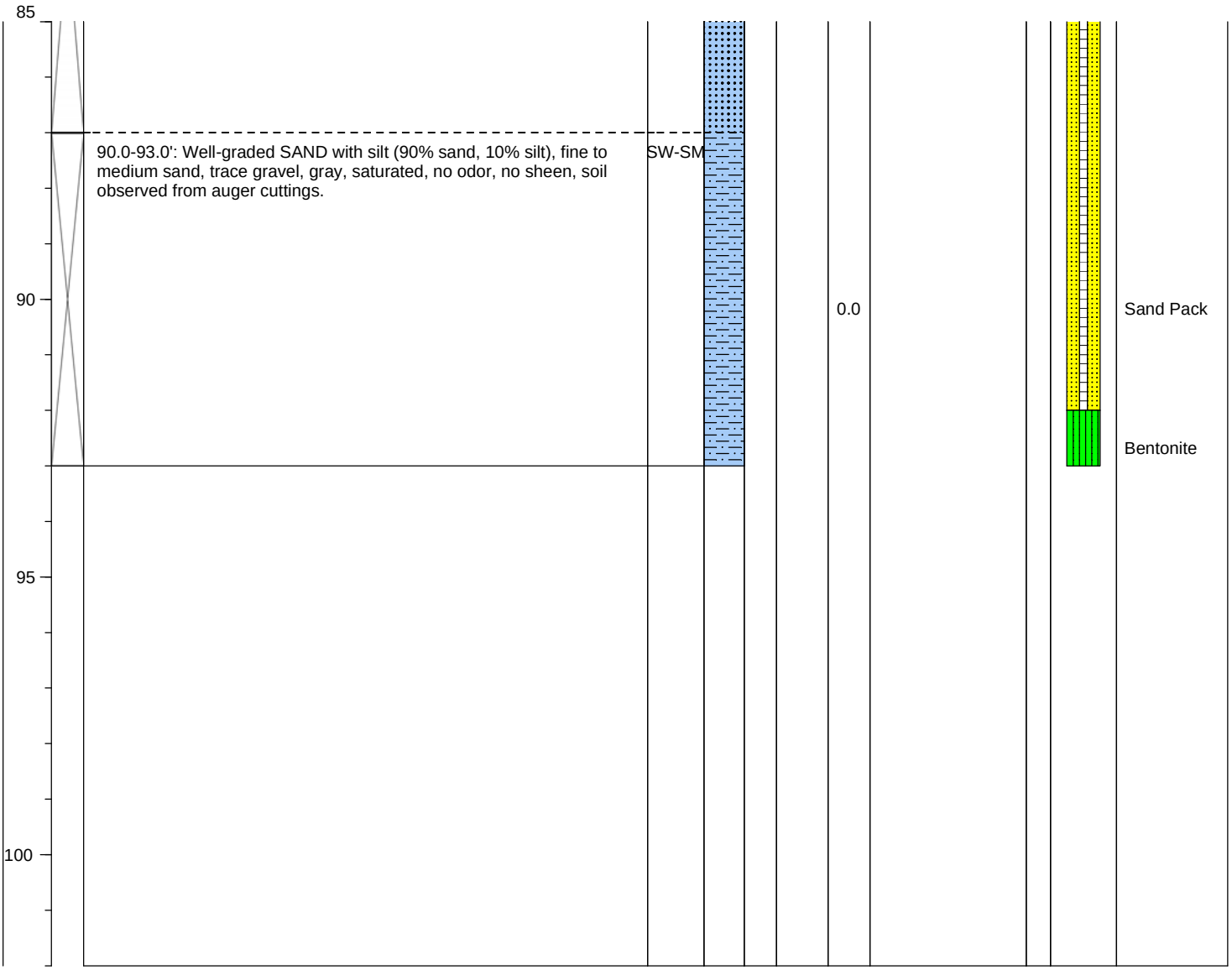
Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/3/17 @ 1150	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1300	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 38.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
90		90.0-93.0': Well-graded SAND with silt (90% sand, 10% silt), fine to medium sand, trace gravel, gray, saturated, no odor, no sheen, soil observed from auger cuttings.	SW-SM				0.0			Sand Pack; Bentonite



Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-4

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/7/17 @ 0930	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1500	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-15.0': Well-graded SAND with gravel (80% sand, 15% gravel, 5% silt), fine to coarse sand, fine to coarse gravel with cobbles, brownish gray, wet, no odor, no sheen, soil observed from auger cuttings.	SW				0.0			Cement
15		15.0-25.0': Well-graded SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine gravel, gray, wet, hydrocarbon odor, no sheen, wood debris at 18.0' bgs, soil observed from auger cuttings.	SW-SM				0.1			

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-4

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/7/17 @ 0930	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1500	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
20							0.4			Cement
25		25.0-26.0': SILT (100% silt), gray, wet, no odor, no sheen, wood debris not observed, soil observed from auger cuttings.	ML							
		26.0-34.0': Silty SAND (60% sand, 40% silt), fine to coarse sand, trace gravel, gray, wet, slight hydrocarbon odor, no sheen, soil observed from auger cuttings.	SM				0.1			
30										Bentonite

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-4

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/7/17 @ 0930	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1500	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
35		34.0-40.0': Silty SAND (75% sand, 25% silt), fine to medium sand, gray, wet, no odor, no sheen, soil observed from auger cuttings.	SM				0.3 0.1 0.1			PVC Sceen
40		40.0-83.0': Well-graded SAND with silt (90% sand, 10% silt), fine to coarse sand, wet, gray, no odor, no sheen, soil observed from auger cuttings.	SW-SM				0.1			
45										Sand Pack
50							1.0			

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

FARALLON CONSULTING

Log of Boring: IA-4

Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/7/17 @ 0930	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1500	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
55										Sand Pack
60							2.1			
65										PVC Sceen

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

Log of Boring: IA-4

Client: Vulcan
Project: Block 37
Location: Seattle, WA
Farallon PN: 397-044
Logged By: Amber Bailey

Date/Time Started:	2/7/17 @ 0930	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1500	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
70										Sand Pack
75							1.2			
80		83.0-88.0': Silty SAND (80% sand, 20% silt), fine to medium sand, gray, saturated, no odor, no sheen, soil observed from auger cuttings.	SM				0.6			PVC Sceen
85										

Well Construction Information

Monument Type: Stickup 4.0' ags
Casing Diameter (inches): 12"
Screen Slot Size (inches): 0.030"
Screened Interval (ft bgs): 32.0-92.0'

Filter Pack: Glacier 80/700
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA, Y: NA

Log of Boring: IA-4

Client: Vulcan
Project: Block 37
Location: Seattle, WA

Farallon PN: 397-044

Logged By: Amber Bailey

Date/Time Started:	2/7/17 @ 0930	**Sampler Type:**	NA
Date/Time Completed:	2/7/17 @ 1500	**Drive Hammer (lbs.):**	NA
Equipment:	BG-24	**Depth of Water ATD (ft bgs):**	~ 40.0'
Drilling Company:	Malcom Drilling	**Total Boring Depth (ft bgs):**	93.0'
Drilling Foreman:	Shawn Blunt	**Total Well Depth (ft bgs):**	92.0'
Drilling Method:	Hollow Stem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
85										
		88.0-90.0': Well-graded SAND with gravel (85% sand, 15% gravel), fine to coarse sand, fine to coarse gravel, gray, saturated, no odor, no sheen, soil observed from auger cuttings.	SW				0.5			
90		90.0-93.0': Well-graded SAND with silt (90% sand, 10% silt), fine to coarse sand, trace gravel, gray, saturated, no odor, no sheen, soil observed from auger cuttings.	SW-SM				0.4			Sand Pack
							0.5			Bentonite
							0.8			
95										
100										

Well Construction Information

Monument Type:	Stickup 4.0' ags	**Filter Pack:**	Glacier 80/700	**Ground Surface Elevation (ft):**	NA
Casing Diameter (inches):	12"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft):**	NA
Screen Slot Size (inches):	0.030"	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	32.0-92.0'	**Boring Abandonment:**	NA		**Y:** NA

APPENDIX C
WATERTECTONICS ANALYTICAL DATA

INTERIM ACTION COMPLETION REPORT
Groundwater Interception System
700 Dexter HVOC Plume Interim Action
Block 37 Property
630 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-044

Table A-1
WaterTectonics Groundwater Analytical Results for HVOCs
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]					
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
Clean Well INF	WaterTec	5/18/2017	CLEAN WELL INFLU.	< 1.0	< 0.5	< 1.0	< 1.0	---	< 0.2
Clean Well INF	WaterTec	6/1/2017	CW INFL	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
Clean Well INF	WaterTec	6/2/2017	CW INFLU	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
INF	WaterTec	4/20/2017	INF-042017	< 1.0	< 0.5	**42.2**	---	---	**27.0**
INF	WaterTec	4/26/2017	INF-042617	< 1.0	< 0.5	**55.7**	---	---	**61.4**
Influent_WT	WaterTec	5/3/2017	INFLUENT	< 1.0	< 0.5	**51.2**	< 1.0	< 1.0	**53.9**
INF	WaterTec	5/8/2017	INF-050817	< 1.0	< 0.5	**53.4**	---	---	**61.8**
Dewater Well 18	WaterTec	6/16/2017	DEWATERING WELLS 18	< 1	< 0.5	< 1	< 1	< 1	< 0.2
Dewater Well 19	WaterTec	6/16/2017	DEWATERING WELLS 19	< 1	< 0.5	< 1	< 1	< 1	< 0.2
Dewater Well 20	WaterTec	6/16/2017	DEWATERING WELLS 20	< 1	< 0.5	< 1	< 1	< 1	< 0.2
Dewater Well 21	WaterTec	6/16/2017	DEWATERING WELLS 21	< 1	< 0.5	< 1	< 1	< 1	< 0.2
Dewater Well 22	WaterTec	6/16/2017	DEWATERING WELLS 22	< 1	< 0.5	< 1	< 1	< 1	< 0.2
Dewater Well 23	WaterTec	6/16/2017	DEWATERING WELLS 23	< 1	< 0.5	< 1	< 1	< 1	< 0.2
Dewater Well 24	WaterTec	6/16/2017	DEWATERING WELLS 24	< 1	< 0.5	< 1	< 1	< 1	< 0.2
EFF_UNK	WaterTec	4/20/2017	EFF-042017	< 1.0	---	**---**	---	---	**---**
EFF_UNK	WaterTec	5/3/2017	EFF-050317	< 1.0	< 0.5	**24**	---	---	**9.14**
EFF_UNK	WaterTec	5/8/2017	EFF-050817	< 2.0	< 0.6	**22.85**	---	---	**12.97**
Effluent_WT	WaterTec	5/12/2017	EFFLUENT	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
IA INF	WaterTec	5/8/2017	IA INFL	< 1.0	< 0.5	**48.8**	< 1.0	< 1.0	**58.3**
IA INF	WaterTec	5/12/2017	IA INFLUENT	< 1.0	< 0.5	**42.7**	< 1.0	< 1.0	**57.2**
IA INF	WaterTec	5/31/2017	IA INFLUENT_053117	< 1.0	< 0.5	**45.9**	< 1.0	< 1.0	**43.3**
IA INF	WaterTec	6/6/2017	IA INF_060617	< 1.0	< 0.5	**20.1**	< 1.0	< 1.0	< 0.2
IA INF	WaterTec	6/13/2017	IA INFLUENT_061317	< 1	< 0.5	**50.9**	< 1	< 1	**48.3**
IA INF	WaterTec	6/20/2017	IA IN_062017	< 1	< 0.5	**43.4**	< 1	< 1	**37.9**
IA INF	WaterTec	6/27/2017	IA INFL_062717	< 1	< 0.5	**43.3**	< 1	---	**32.7**
IA INF	WaterTec	7/3/2017	IA INF_070317	< 1	< 0.5	**45**	< 1	< 1	**40.3**
IA INF	WaterTec	7/11/2017	IA IN_071117	< 1	< 0.5	**44**	< 1	< 1	**39.1**
IA INF	WaterTec	7/18/2017	IA INFL_071817	< 1	< 0.5	**45.3**	< 1	< 1	**35.9**
IA INF	WaterTec	7/25/2017	IA INF_072517	< 1	< 0.5	**46.5**	< 1	< 1	**40.3**
IA INF	WaterTec	8/1/2017	IA INF_080117	< 1	< 0.5	**46.9**	< 1	< 1	**37.6**
IA INF	WaterTec	8/8/2017	IA - INFLUENT_080817	< 1	< 0.5	**47.8**	< 1	< 1	**39.4**
IA INF	WaterTec	8/15/2017	IA INFLUENT_081517	< 1	< 0.5	**42.4**	< 1	< 1	**27.8**
IA INF	WaterTec	8/23/2017	IA-INFLUENT_082317	< 1	< 0.5	**46.5**	< 1	< 1	**34.1**
IA Pre GAC 1	WaterTec	5/8/2017	IA PRE GAC 1	< 1.0	< 0.5	**22.8**	< 1.0	< 1.0	**8.26**
IA Post GAC 1	WaterTec	5/8/2017	IA POST GAC 1	< 1.0	< 0.5	9.4	< 1.0	< 1.0	**3.75**
IA Post GAC 1	WaterTec	5/17/2017	IA GAC #1	< 1.0	< 0.5	< 1.0	< 1.0	---	< 0.2
IA Post GAC 2	WaterTec	5/8/2017	IA POST GAC 2	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	**2.25**
IA Post GAC 2	WaterTec	5/17/2017	IA GAC #2	< 1.0	< 0.5	< 1.0	< 1.0	---	**1.97**
IA Post GAC 3	WaterTec	5/8/2017	IA POST GAC 3	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	**0.972**
IA Post GAC 3	WaterTec	5/17/2017	IA GAC #3	< 1.0	< 0.5	< 1.0	< 1.0	---	**1.03**
IA Post East Tank	WaterTec	5/8/2017	IA POST EAST TANK	< 1.0	< 0.5	**26.2**	< 1.0	< 1.0	**11.7**
IA Post West Tank	WaterTec	5/8/2017	IA POST WEST TANK	< 1.0	< 0.5	**19.5**	< 1.0	< 1.0	**7.12**
IA EFF	WaterTec	5/3/2017	EFFLUENT IA	< 1.0	< 0.5	**24**	< 1.0	< 1.0	**9.14**
IA EFF	WaterTec	5/31/2017	IA EFFLUENT_053117	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
IA EFF	WaterTec	6/6/2017	IA EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
IA EFF	WaterTec	6/13/2017	IA EFFLUENT_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
IA EFF	WaterTec	6/20/2017	IA OUT_062017	< 1	< 0.5	< 1	< 1	< 1	< 0.2
IA EFF	WaterTec	6/27/2017	IA EFFL_062717	< 1	< 0.5	< 1	< 1	---	**0.683**
IA EFF	WaterTec	7/3/2017	IA EFF_070317	< 1	< 0.5	< 1	< 1	< 1	**0.665**
IA EFF	WaterTec	7/11/2017	IA EFFL_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
IA EFF	WaterTec	7/18/2017	IA EFF_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
IA EFF	WaterTec	7/25/2017	IA EFF_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
IA EFF	WaterTec	8/1/2017	IA EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
IA EFF	WaterTec	8/8/2017	IA - EFFLUENT_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
IA EFF	WaterTec	8/23/2017	IA-EFFLUENT_082317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**

Table A-1
WaterTectonics Groundwater Analytical Results for HVOCs
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]					
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
Pre EC	WaterTec	5/8/2017	PRE EC	< 1.0	< 0.5	**17.6**	< 1.0	< 1.0	**4.72**
Carbon	WaterTec	5/11/2017	CARBON / 1	< 1.0	< 1.0	4.44	< 1.0	< 1.0	**12.1**
EC Post GAC 1	WaterTec	5/8/2017	EC POST GAC 1	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
EC Post GAC 2	WaterTec	5/8/2017	EC POST GAC 2	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	**0.424**
GAC1 Inf	WaterTec	6/6/2017	GAC1 INF_060617	< 1.0	< 0.5	**20.6**	< 1.0	< 1.0	< 0.2
GAC1 Eff	WaterTec	6/6/2017	GAC1 EFF_060617	< 1.0	< 0.5	< 1	< 1.0	< 1.0	< 0.2
GAC2 Inf	WaterTec	6/6/2017	GAC2 INF_060617	< 1.0	< 0.5	**20.4**	< 1.0	< 1.0	< 0.2
GAC2 Eff	WaterTec	6/6/2017	GAC2 EFF_060617	< 1.0	< 0.5	10.6	< 1.0	< 1.0	< 0.2
GAC3 Inf	WaterTec	6/6/2017	GAC3 INF_060617	< 1.0	< 0.5	**20.3**	< 1.0	< 1.0	< 0.2
GAC3 Eff	WaterTec	6/6/2017	GAC3 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
GAC4 Inf	WaterTec	6/6/2017	GAC4 INF_060617	< 1.0	< 0.5	3.72	< 1	< 1.0	< 0.2
GAC4 Eff	WaterTec	6/6/2017	GAC4 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
GAC5 Inf	WaterTec	6/6/2017	GAC5 INF_060617	< 1.0	< 0.5	3.67	< 1	< 1.0	< 0.2
GAC5 Eff	WaterTec	6/6/2017	GAC5 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
GAC8 Inf	WaterTec	6/6/2017	GAC8 INF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
GAC8 Eff	WaterTec	6/6/2017	GAC8 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
GAC9 Inf	WaterTec	6/6/2017	GAC9 INF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
GAC9 Eff	WaterTec	6/6/2017	GAC9 EFF_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
GAC1 Inf	WaterTec	6/13/2017	INF GAC 1_061317	< 1	< 0.5	**21.1**	< 1	< 1	**5.29**
GAC1 Eff	WaterTec	6/13/2017	EFF GAC 1_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC2 Inf	WaterTec	6/13/2017	INFLUENT GAC 2_061317	< 1	< 0.5	**20.4**	< 1	< 1	**5.06**
GAC2 Eff	WaterTec	6/13/2017	EFFLUENT GAC 2_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC3 Inf	WaterTec	6/13/2017	INFLUENT GAC 3_061317	< 1	< 0.5	**21.9**	< 1	< 1	**5.58**
GAC3 Eff	WaterTec	6/13/2017	EFFLUENT GAC 3_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC4 Inf	WaterTec	6/13/2017	IN GAC 4_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC4 Eff	WaterTec	6/13/2017	EFF GAC 4_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5 Inf	WaterTec	6/13/2017	IN GAC 5_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5 Eff	WaterTec	6/13/2017	EFF GAC 5_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Inf	WaterTec	6/13/2017	IN GAC 8_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Eff	WaterTec	6/13/2017	EFF GAC 8_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9 Inf	WaterTec	6/13/2017	IN GAC 9_061317	< 1	< 0.5	1.53	< 1	< 1	< 0.2
GAC9 Eff	WaterTec	6/13/2017	EFF GAC 9_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC1	WaterTec	6/20/2017	1	< 1	< 0.5	< 1	< 1	< 1	**1.59**
GAC2	WaterTec	6/20/2017	2	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC3	WaterTec	6/20/2017	3	< 1	< 0.5	< 1	< 1	< 1	**1.34**
GAC4	WaterTec	6/20/2017	4	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5	WaterTec	6/20/2017	5	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8	WaterTec	6/20/2017	8	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9	WaterTec	6/20/2017	9	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC1 Inf	WaterTec	6/27/2017	GAC 1 INFL_062717	< 1	< 0.5	10.9	< 1	---	**1.6**
GAC1 Eff	WaterTec	6/27/2017	GAC 1 EFFL_062717	< 1	< 0.5	< 1	< 1	---	**1.7**
GAC2 Inf	WaterTec	6/27/2017	GAC 2 INFL_062717	< 1	< 0.5	13.8	< 1	---	**3.44**
GAC2 Eff	WaterTec	6/27/2017	GAC 2 EFFL_062717	< 1	< 0.5	< 1	< 1	---	**0.706**
GAC3 Inf	WaterTec	6/27/2017	GAC 3 INFL_062717	< 1	< 0.5	13.8	< 1	---	**3.56**
GAC3 Eff	WaterTec	6/27/2017	GAC 3 EFFL_062717	< 1	< 0.5	< 1	< 1	---	**1.54**
GAC4 Inf	WaterTec	6/27/2017	GAC 4 INFL_062717	< 1	< 0.5	< 1	< 1	---	**0.725**
GAC4 Eff	WaterTec	6/27/2017	GAC 4 EFFL_062717	< 1	< 0.5	< 1	< 1	---	**0.705**
GAC5 Inf	WaterTec	6/27/2017	GAC 5 INFL_062717	< 1	< 0.5	< 1	< 1	---	**1.1**
GAC5 Eff	WaterTec	6/27/2017	GAC 5 EFFL_062717	< 1	< 0.5	< 1	< 1	---	**0.655**
GAC8 Inf	WaterTec	6/27/2017	GAC 8 INFL_062717	< 1	< 0.5	< 1	< 1	---	< 0.2
GAC8 Eff	WaterTec	6/27/2017	GAC 8 EFFL_062717	< 1	< 0.5	< 1	< 1	---	< 0.2
GAC9 Inf	WaterTec	6/27/2017	GAC 9 INFL_062717	< 1	< 0.5	2.65	< 1	---	< 0.2
GAC9 Eff	WaterTec	6/27/2017	GAC 9 EFFL_062717	< 1	< 0.5	< 1	< 1	---	< 0.2
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**

Table A-1
WaterTectonics Groundwater Analytical Results for HVOCs
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]					
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
GAC1 Inf	WaterTec	7/3/2017	GAC 1 INF_070317	< 1	< 0.5	15.6	< 1	< 1	**3.34**
GAC1 Eff	WaterTec	7/3/2017	GAC 1 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC2 Inf	WaterTec	7/3/2017	GAC 2 INF_070317	< 1	< 0.5	15.8	< 1	< 1	**3.34**
GAC2 Eff	WaterTec	7/3/2017	GAC 2 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	**1.12**
GAC3 Inf	WaterTec	7/3/2017	GAC 3 INF_070317	< 1	< 0.5	15.7	< 1	< 1	**3.38**
GAC3 Eff	WaterTec	7/3/2017	GAC 3 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC4 Inf	WaterTec	7/3/2017	GAC 4 INF_070317	< 1	< 0.5	< 1	< 1	< 1	**0.291**
GAC4 Eff	WaterTec	7/3/2017	GAC 4 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	**0.646**
GAC5 Inf	WaterTec	7/3/2017	GAC 5 INF_070317	< 1	< 0.5	< 1	< 1	< 1	**0.315**
GAC5 Eff	WaterTec	7/3/2017	GAC 5 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	**0.44**
GAC8 Inf	WaterTec	7/3/2017	GAC 8 INF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Eff	WaterTec	7/3/2017	GAC 8 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9 Inf	WaterTec	7/3/2017	GAC 9 INF_070317	< 1	< 0.5	1.59	< 1	< 1	< 0.2
GAC9 Eff	WaterTec	7/3/2017	GAC 9 EFF_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC1 Inf	WaterTec	7/11/2017	1 IN_071117	< 1	< 0.5	**21.3**	< 1	< 1	< 0.2
GAC1 Eff	WaterTec	7/11/2017	1 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC2 Inf	WaterTec	7/11/2017	2 IN_071117	< 1	< 0.5	**21.1**	< 1	< 1	< 0.2
GAC2 Eff	WaterTec	7/11/2017	2 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC3 Inf	WaterTec	7/11/2017	3 IN_071117	< 1	< 0.5	**21.3**	< 1	< 1	< 0.2
GAC3 Eff	WaterTec	7/11/2017	3 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC6 Inf	WaterTec	7/11/2017	6 IN_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC6 Eff	WaterTec	7/11/2017	6 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC7 Inf	WaterTec	7/11/2017	7 IN_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC7 Eff	WaterTec	7/12/2017	GAC7 EFF_071217	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Inf	WaterTec	7/11/2017	8 IN_071117	< 1	< 0.5	1.87	< 1	< 1	< 0.2
GAC8 Eff	WaterTec	7/11/2017	8 OUT_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9 Inf	WaterTec	7/11/2017	9 IN_071117	< 1	< 0.5	9.7	< 1	< 1	< 0.2
GAC9 Eff	WaterTec	7/11/2017	9 OUT_071117	< 1	< 0.5	1.93	< 1	< 1	< 0.2
GAC1 Inf	WaterTec	7/18/2017	GAC 1 INFL_071817	< 1	< 0.5	**16.6**	< 1	< 1	**2.83**
GAC1 Eff	WaterTec	7/18/2017	GAC 1 EFFL_071817	< 1	< 0.5	< 1	< 1	< 1	**0.763**
GAC2 Inf	WaterTec	7/18/2017	GAC 2 INFL_071817	< 1	< 0.5	15.4	< 1	< 1	**2.57**
GAC2 Eff	WaterTec	7/18/2017	GAC 2 EFFL_071817	< 1	< 0.5	1.69	< 1	< 1	**1.51**
GAC3 Inf	WaterTec	7/18/2017	GAC 3 INFL_071817	< 1	< 0.5	**16.1**	< 1	< 1	**1.65**
GAC3 Eff	WaterTec	7/18/2017	GAC 3 EFFL_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC4 Inf	WaterTec	7/18/2017	GAC 4 INFL_071817	< 1	< 0.5	< 1	< 1	< 1	**0.752**
GAC4 Eff	WaterTec	7/18/2017	GAC 4 EFFL_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5 Inf	WaterTec	7/18/2017	GAC 5 INFL_071817	< 1	< 0.5	< 1	< 1	< 1	**0.686**
GAC5 Eff	WaterTec	7/18/2017	GAC 5 EFFL_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Inf	WaterTec	7/18/2017	GAC 8 INFL_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Eff	WaterTec	7/18/2017	GAC 8 EFF_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9 Inf	WaterTec	7/18/2017	GAC 9 INFL_071817	< 1	< 0.5	3.74	< 1	< 1	< 0.2
GAC9 Eff	WaterTec	7/18/2017	GAC 9 EFFL_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC1 Eff	WaterTec	7/25/2017	GAC 1 EFF_072517	< 1	< 0.5	< 1	< 1	< 1	**0.642**
GAC2 Eff	WaterTec	7/25/2017	GAC 2 EFF_072517	< 1	< 0.5	1.66	< 1	< 1	**1.51**
GAC3 Eff	WaterTec	7/25/2017	GAC 3 EFF_072517	< 1	< 0.5	1.6	< 1	< 1	**1.52**
GAC4 Eff	WaterTec	7/25/2017	GAC 4 EFF_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5 Eff	WaterTec	7/25/2017	GAC 5 EFF_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Eff	WaterTec	7/25/2017	GAC 8 EFF_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9 Eff	WaterTec	7/25/2017	GAC 9 EFF_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**

Table A-1
WaterTectonics Groundwater Analytical Results for HVOCs
700 Dexter HVOC Plume Interim Action
Seattle, Washington
Farallon PN: 397-044

Sample Location	Sampled By	Sample Date	Sample Identification	Analytical Results (micrograms per liter)[1]					
				PCE	TCE	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
GAC1 Eff	WaterTec	8/1/2017	GAC 1 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC2 Eff	WaterTec	8/1/2017	GAC 2 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC3 Eff	WaterTec	8/1/2017	GAC 3 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC4 Eff	WaterTec	8/1/2017	GAC 4 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5 Eff	WaterTec	8/1/2017	GAC 5 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8 Eff	WaterTec	8/1/2017	GAC 8 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9 Eff	WaterTec	8/1/2017	GAC 9 EFF_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC1	WaterTec	8/8/2017	G1_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC2	WaterTec	8/8/2017	G2_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC3	WaterTec	8/8/2017	G3_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC4	WaterTec	8/8/2017	G4_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5	WaterTec	8/8/2017	G5_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC8	WaterTec	8/8/2017	G8_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9	WaterTec	8/8/2017	G9_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC1	WaterTec	8/15/2017	G1_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC2	WaterTec	8/15/2017	G2_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC3	WaterTec	8/15/2017	G3_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC4	WaterTec	8/15/2017	G4_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC5	WaterTec	8/15/2017	G5_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9	WaterTec	8/15/2017	G9_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC Eff	WaterTec	8/15/2017	G EFFLUENT_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC1 Inf	WaterTec	8/23/2017	GAC 1 IN_082317	< 1	< 0.5	14.7	< 1	< 1	**2.36**
GAC1 Eff	WaterTec	8/23/2017	GAC 1 OUT_082317	< 1	< 0.5	< 1	< 1	< 1	**0.625**
GAC2 Eff	WaterTec	8/23/2017	GAC 2 OUT_082317	< 1	< 0.5	< 1	< 1	< 1	**1.22**
GAC3 Eff	WaterTec	8/23/2017	GAC 3 OUT_082317	< 1	< 0.5	< 1	< 1	< 1	**0.715**
GAC4 Eff	WaterTec	8/23/2017	GAC 4 OUT_082317	< 1	< 0.5	< 1	< 1	< 1	**0.388**
GAC5 Eff	WaterTec	8/23/2017	GAC 5 OUT_082317	< 1	< 0.5	< 1	< 1	< 1	**0.363**
GAC8 Inf	WaterTec	8/23/2017	GAC 8 IN_082317	< 1	< 0.5	1.2	< 1	< 1	< 0.2
GAC8 Eff	WaterTec	8/23/2017	GAC 8 OUT_082317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
GAC9 Inf	WaterTec	8/23/2017	GAC 9 IN_082317	< 1	< 0.5	6.33	< 1	< 1	**0.445**
Weir Tank Sludge	WaterTec	5/10/2017	WEIR TANK SLUDGE	< 0.717	< 0.907	< 1.22	< 0.893	< 0.713	< 1.63
NPDES Discharge	WaterTec	4/19/2017	NPDES DISCHARGE POINT	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
NPDES Discharge	WaterTec	4/26/2017	NPDES DISCHARGE_042617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
NPDES Discharge	WaterTec	5/3/2017	NPDES DISCHARGE_050317	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	**0.383**
NPDES Discharge	WaterTec	5/31/2017	NPDES DISCH_053117	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
NPDES Discharge	WaterTec	6/6/2017	NPDES DISCHARGE_060617	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
NPDES Discharge	WaterTec	6/13/2017	NPDS_061317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	6/20/2017	NPDES_062017	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	6/27/2017	NPDES_062717	< 1	< 0.5	< 1	< 1	---	< 0.2
NPDES Discharge	WaterTec	7/3/2017	NPDES_070317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	7/11/2017	NPDES DISCH_071117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	7/18/2017	NPDES DISCH_071817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	7/25/2017	NPDES_072517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	8/1/2017	NPDES DISCH_080117	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	8/8/2017	NPDES DISCH_080817	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	8/15/2017	NPDES DISCH_081517	< 1	< 0.5	< 1	< 1	< 1	< 0.2
NPDES Discharge	WaterTec	8/23/2017	NPDES_082317	< 1	< 0.5	< 1	< 1	< 1	< 0.2
Sanitary Discharge	WaterTec	4/17/2017	SANITARY DISCHARGE	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.2
MTCA Cleanup Levels for Groundwater[2]				**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**

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 U.S. Environmental Protection Agency Method 8260C.

[2]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 2013, unless otherwise noted.

[3]Washington State Model Toxics Control Act Cleanup Regulation Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx

HVOC = halogenated volatile organic compound

PCE = tetrachloroethene

TCE = trichloroethene

VOC = volatile organic compound

WaterTec = WaterTectonics

APPENDIX D
LABORATORY ANALYTICAL REPORTS

INTERIM ACTION COMPLETION REPORT
Groundwater Interception System
700 Dexter HVOC Plume Interim Action
Block 37 Property
630 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-044

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

March 31, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-010
Laboratory Reference No. 1703-240

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on March 24, 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: March 31, 2017
Samples Submitted: March 24, 2017
Laboratory Reference: 1703-240
Project: 397-010

Case Narrative

Samples were collected on March 24, 2017 and received by the laboratory on March 24, 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: March 31, 2017
Samples Submitted: March 24, 2017
Laboratory Reference: 1703-240
Project: 397-010

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI-1-032417**					
Laboratory ID:	03-240-01					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*77-129*				
Toluene-d8	*106*	*80-127*				
4-Bromofluorobenzene	*106*	*80-125*				

Date of Report: March 31, 2017
Samples Submitted: March 24, 2017
Laboratory Reference: 1703-240
Project: 397-010

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI-2-032417**					
Laboratory ID:	03-240-02					
Vinyl Chloride	5.9	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	1.7	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*77-129*				
Toluene-d8	*106*	*80-127*				
4-Bromofluorobenzene	*107*	*80-125*				

Date of Report: March 31, 2017
Samples Submitted: March 24, 2017
Laboratory Reference: 1703-240
Project: 397-010

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-MW-131-032417**					
Laboratory ID:	03-240-03					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	39	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*77-129*				
Toluene-d8	*110*	*80-127*				
4-Bromofluorobenzene	*112*	*80-125*				

Date of Report: March 31, 2017
Samples Submitted: March 24, 2017
Laboratory Reference: 1703-240
Project: 397-010

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**F-MW-3D-032417**					
Laboratory ID:	03-240-04					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*77-129*				
Toluene-d8	*109*	*80-127*				
4-Bromofluorobenzene	*107*	*80-125*				

Date of Report: March 31, 2017
Samples Submitted: March 24, 2017
Laboratory Reference: 1703-240
Project: 397-010

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0330W1					
Vinyl Chloride	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Trichloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Tetrachloroethene	ND	0.20	EPA 8260C	3-30-17	3-30-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*77-129*				
Toluene-d8	*108*	*80-127*				
4-Bromofluorobenzene	*109*	*80-125*				

Date of Report: March 31, 2017
Samples Submitted: March 24, 2017
Laboratory Reference: 1703-240
Project: 397-010

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0330W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.29**	**9.04**	10.0	10.0	83	90	63-127	9	17	
Benzene	**9.30**	**10.2**	10.0	10.0	93	102	76-121	9	12	
Trichloroethene	**8.64**	**9.71**	10.0	10.0	86	97	64-120	12	15	
Toluene	**10.1**	**11.4**	10.0	10.0	101	114	82-120	12	13	
Chlorobenzene	**9.28**	**10.2**	10.0	10.0	93	102	80-120	9	14	
Surrogate:										
Dibromofluoromethane					*94*	*91*	*77-129*			
Toluene-d8					*111*	*111*	*80-127*			
4-Bromofluorobenzene					*114*	*109*	*80-125*			

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

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: 397-010
Project Name: Block 37/31
Project Manager: TAD Cline
Sampled by: Amber Bailey

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: 03-240

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	GEI-1-032417	3/24/17	1005	W	3
2	GEI-2-032417	3/24/17	1120	W	3
3	F-MW-13I-032417	3/24/17	1230	W	3
4	F-MW-3D-032417	3/24/17	1350	W	3

Lab ID	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		HVOCs*			% Moisture
1					X															X		
2					X	HB														X		
3					X															X		
4					X															X		

	Signature	Company	Date	Time
Relinquished		Farallon	3/24/17	1438
Received		Onsite	3-24-17	1438
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Please hold, will call for analysis and TAT.
Limited list:
* PCE, TCE, CIS/TRANS-DCE, VC

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

June 30, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1706-290

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 26, 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: June 30, 2017
Samples Submitted: June 26, 2017
Laboratory Reference: 1706-290
Project: 397-044

Case Narrative

Samples were collected on June 23, 2017 and received by the laboratory on June 26, 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.

Volatiles EPA 8260C Analysis

All VOA vials provided for sample GEI-2_062317 contained headspace. Some loss of volatiles may have occurred.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 30, 2017
Samples Submitted: June 26, 2017
Laboratory Reference: 1706-290
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FMW-131_062317**					
Laboratory ID:	06-290-01					
Vinyl Chloride	0.26	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	3.6	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***122***	***77-129***				
Toluene-d8	***103***	***80-127***				
4-Bromofluorobenzene	***99***	***78-125***				

Date of Report: June 30, 2017
Samples Submitted: June 26, 2017
Laboratory Reference: 1706-290
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI-2_062317**					
Laboratory ID:	06-290-02					
Vinyl Chloride	110	1.0	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	15	1.0	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	1.0	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	1.0	EPA 8260C	6-29-17	6-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***118***	***77-129***				
Toluene-d8	***103***	***80-127***				
4-Bromofluorobenzene	***98***	***78-125***				

Date of Report: June 30, 2017
Samples Submitted: June 26, 2017
Laboratory Reference: 1706-290
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FMW-3D_062317**					
Laboratory ID:	06-290-03					
Vinyl Chloride	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***119***	***77-129***				
Toluene-d8	***103***	***80-127***				
4-Bromofluorobenzene	***98***	***78-125***				

Date of Report: June 30, 2017
Samples Submitted: June 26, 2017
Laboratory Reference: 1706-290
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FMW-129_062317**					
Laboratory ID:	06-290-04					
Vinyl Chloride	5.3	4.0	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	4.0	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	360	4.0	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	130	4.0	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	49	4.0	EPA 8260C	6-29-17	6-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***106***	***77-129***				
Toluene-d8	***94***	***80-127***				
4-Bromofluorobenzene	***90***	***78-125***				

Date of Report: June 30, 2017
Samples Submitted: June 26, 2017
Laboratory Reference: 1706-290
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0629W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***99***	***77-129***				
Toluene-d8	***101***	***80-127***				
4-Bromofluorobenzene	***96***	***78-125***				

Date of Report: June 30, 2017
Samples Submitted: June 26, 2017
Laboratory Reference: 1706-290
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0629W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**11.3**	**10.9**	10.0	10.0	113	109	63-127	4	17	
Benzene	**10.7**	**10.4**	10.0	10.0	107	104	76-121	3	12	
Trichloroethene	**9.55**	**8.85**	10.0	10.0	96	89	64-120	8	15	
Toluene	**10.7**	**9.94**	10.0	10.0	107	99	82-120	7	13	
Chlorobenzene	**10.1**	**9.26**	10.0	10.0	101	93	80-120	9	14	
Surrogate:										
Dibromofluoromethane					***98***	***103***	***77-129***			
Toluene-d8					***102***	***102***	***80-127***			
4-Bromofluorobenzene					***99***	***98***	***78-125***			

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

Laboratory Number: 06-290

Company: FARALLON
Project Number: 397-044
Project Name: 700 Dexter
Project Manager: TAD CLINE
Sampled by: A. VINING

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 SHORTLIST	EDB EPA 8011 (Waters Only) 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	F-MW-131_062317	6/23/17	8:45	GW	3						X																
2	GEI-2_062317	↓	10:45	↓	3						X																
3	FMW-3D_062317	↓	12:50	↓	3						X																
4	~~FMW-120~~ 129 _062317 DD	↓	13:08	↓	3						X																

	Signature	Company	Date	Time
Relinquished	[signature]	FARALLON	6/26/17	11:00a
Received	[signature]	GEE	6/26/17	1100
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
ANALYZE SHORT LIST &
PCE & DCE Daughter Products
TCE, PCE, cis/trans DCE, VC

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

April 20, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1704-169

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on April 18, 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: April 20, 2017
Samples Submitted: April 18, 2017
Laboratory Reference: 1704-169
Project: 397-044

Case Narrative

Samples were collected on April 17, 2017 and received by the laboratory on April 18, 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: April 20, 2017
Samples Submitted: April 18, 2017
Laboratory Reference: 1704-169
Project: 397-044

HALOGENATED VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-041717**					
Laboratory ID:	04-169-01					
Vinyl Chloride	20	0.40	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	39	0.40	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***97***	***77-129***				
Toluene-d8	***97***	***80-127***				
4-Bromofluorobenzene	***94***	***80-125***				

Date of Report: April 20, 2017
Samples Submitted: April 18, 2017
Laboratory Reference: 1704-169
Project: 397-044

HALOGENATED VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF2-041717**					
Laboratory ID:	04-169-02					
Vinyl Chloride	25	0.40	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	42	0.40	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-18-17	4-18-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***102***	***77-129***				
Toluene-d8	***100***	***80-127***				
4-Bromofluorobenzene	***95***	***80-125***				

Date of Report: April 20, 2017
Samples Submitted: April 18, 2017
Laboratory Reference: 1704-169
Project: 397-044

HALOGENATED VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF1-041717**					
Laboratory ID:	04-169-03					
Vinyl Chloride	9.3	0.20	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	23	0.20	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***98***	***77-129***				
Toluene-d8	***98***	***80-127***				
4-Bromofluorobenzene	***91***	***80-125***				

Date of Report: April 20, 2017
Samples Submitted: April 18, 2017
Laboratory Reference: 1704-169
Project: 397-044

HALOGENATED VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF2-041717**					
Laboratory ID:	04-169-04					
Vinyl Chloride	3.9	0.20	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***97***	***77-129***				
Toluene-d8	***97***	***80-127***				
4-Bromofluorobenzene	***88***	***80-125***				

Date of Report: April 20, 2017
Samples Submitted: April 18, 2017
Laboratory Reference: 1704-169
Project: 397-044

HALOGENATED VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0418W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Trichloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-18-17	4-18-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***116***	***77-129***				
Toluene-d8	***112***	***80-127***				
4-Bromofluorobenzene	***92***	***80-125***				

Date of Report: April 20, 2017
Samples Submitted: April 18, 2017
Laboratory Reference: 1704-169
Project: 397-044

HALOGENATED VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0418W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.64**	**10.1**	10.0	10.0	96	101	63-127	5	17	
Benzene	**9.39**	**10.4**	10.0	10.0	94	104	76-121	10	12	
Trichloroethene	**9.32**	**9.81**	10.0	10.0	93	98	64-120	5	15	
Toluene	**9.63**	**10.5**	10.0	10.0	96	105	82-120	9	13	
Chlorobenzene	**9.83**	**10.5**	10.0	10.0	98	105	80-120	7	14	
Surrogate:										
Dibromofluoromethane					***95***	***103***	***77-129***			
Toluene-d8					***96***	***98***	***80-127***			
4-Bromofluorobenzene					***90***	***98***	***80-125***			

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

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: 397-044
Project Name: BLOCK 37
Project Manager: TAD CLINE
Sampled by: Ken Smith

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: 04-169

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C short-list	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	INF-041717	4/17/17	1145	W	3						X											
2	INF2-041717		1650	W	3						X											
3	EFF1-041717		1655	W	3						X											
4	EFF2-041717	↓	1700	W	3						X											
							RS															

	Signature	Company	Date	Time
Relinquished	Ken Smith	FARALLON	4/17/17	1806
Received		ONE	4/18/17	1200
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
PCE, TCE, CIS/TRANS-DCE, VC

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐
Electronic Data Deliverables (EDDs) ☐ _____

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

April 24, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1704-191

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on April 20, 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: April 24, 2017
Samples Submitted: April 20, 2017
Laboratory Reference: 1704-191
Project: 397-044

Case Narrative

Samples were collected on April 19, 2017 and received by the laboratory on April 20, 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: April 24, 2017
Samples Submitted: April 20, 2017
Laboratory Reference: 1704-191
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-041917**					
Laboratory ID:	04-191-01					
Vinyl Chloride	27	0.40	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	41	0.40	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.40	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-21-17	4-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*77-129*				
Toluene-d8	*96*	*80-127*				
4-Bromofluorobenzene	*94*	*80-125*				

Date of Report: April 24, 2017
Samples Submitted: April 20, 2017
Laboratory Reference: 1704-191
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF1-041917**					
Laboratory ID:	04-191-02					
Vinyl Chloride	2.9	0.20	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*92*	*80-125*				

Date of Report: April 24, 2017
Samples Submitted: April 20, 2017
Laboratory Reference: 1704-191
Project: 397-044

VOLATILES by EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF2-041917**					
Laboratory ID:	04-191-03					
Vinyl Chloride	3.1	0.20	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	15	0.20	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*77-129*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*93*	*80-125*				

Date of Report: April 24, 2017
Samples Submitted: April 20, 2017
Laboratory Reference: 1704-191
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0421W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Trichloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-21-17	4-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*77-129*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*93*	*80-125*				

Date of Report: April 24, 2017
Samples Submitted: April 20, 2017
Laboratory Reference: 1704-191
Project: 397-044

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0421W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.37**	**9.63**	10.0	10.0	94	96	63-127	3	17	
Benzene	**9.62**	**9.86**	10.0	10.0	96	99	76-121	2	12	
Trichloroethene	**9.62**	**9.73**	10.0	10.0	96	97	64-120	1	15	
Toluene	**10.0**	**10.2**	10.0	10.0	100	102	82-120	2	13	
Chlorobenzene	**10.0**	**10.2**	10.0	10.0	100	102	80-120	2	14	
Surrogate:										
Dibromofluoromethane					*97*	*101*	*77-129*			
Toluene-d8					*98*	*98*	*80-127*			
4-Bromofluorobenzene					*92*	*96*	*80-125*			

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: 397-044
Project Name: BLOCK 37
Project Manager: TAD ALINE
Sampled by: Ken Scott

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: 04-191

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 short list	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	INF-041917	4/19/17	1007	W	3						X												
2	EFF1-041917		1012	W	3						X												
3	EFF2-041917	↓	1017	W	3						X												

KS

	Signature	Company	Date	Time
Relinquished	Ken Scott	FARALLON	4/19/17	1500
Received		OSE	4/20/17	1140
Relinquished				
Received				
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

May 1, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-043
Laboratory Reference No. 1704-266

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on April 27, 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: May 1, 2017
Samples Submitted: April 27, 2017
Laboratory Reference: 1704-266
Project: 397-043

Case Narrative

Samples were collected on April 27, 2017 and received by the laboratory on April 27, 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: May 1, 2017
Samples Submitted: April 27, 2017
Laboratory Reference: 1704-266
Project: 397-043

HALOGENATED VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-042717**					
Laboratory ID:	04-266-01					
Vinyl Chloride	39	0.40	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	52	0.40	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.40	EPA 8260C	4-28-17	4-28-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*89*	*80-125*				

Date of Report: May 1, 2017
Samples Submitted: April 27, 2017
Laboratory Reference: 1704-266
Project: 397-043

HALOGENATED VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF1-042717**					
Laboratory ID:	04-266-02					
Vinyl Chloride	8.7	0.20	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	28	0.20	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*93*	*80-125*				

Date of Report: May 1, 2017
Samples Submitted: April 27, 2017
Laboratory Reference: 1704-266
Project: 397-043

HALOGENATED VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF2-042717**					
Laboratory ID:	04-266-03					
Vinyl Chloride	3.8	0.20	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

Date of Report: May 1, 2017
Samples Submitted: April 27, 2017
Laboratory Reference: 1704-266
Project: 397-043

HALOGENATED VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0428W1					
Vinyl Chloride	ND	0.20	EPA 8260C	4-28-17	4-28-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Trichloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Tetrachloroethene	ND	0.20	EPA 8260C	4-28-17	4-28-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*96*	*80-125*				

Date of Report: May 1, 2017
Samples Submitted: April 27, 2017
Laboratory Reference: 1704-266
Project: 397-043

HALOGENATED VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0428W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.02**	**8.94**	10.0	10.0	80	89	63-127	11	17	
Benzene	**8.91**	**9.82**	10.0	10.0	89	98	76-121	10	12	
Trichloroethene	**8.88**	**9.53**	10.0	10.0	89	95	64-120	7	15	
Toluene	**9.32**	**10.1**	10.0	10.0	93	101	82-120	8	13	
Chlorobenzene	**9.16**	**10.2**	10.0	10.0	92	102	80-120	11	14	
Surrogate:										
Dibromofluoromethane					*85*	*84*	*77-129*			
Toluene-d8					*101*	*98*	*80-127*			
4-Bromofluorobenzene					*93*	*95*	*80-125*			

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

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

Chain of Custody

Laboratory Number: 04-266

Company: Farallon Consulting
Project Number: 397-043
Project Name: 700 Dexter HVOC Plume
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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 * SHORT LIST	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	INF-042717	4-27-17	1030	H_2O	3						X																
2	EFF1-042717	↓	1255	↓	3						X																
3	EFF2-042717	↓	1300	↓	3						X																

DA (initials)

	Signature	Company	Date	Time
Relinquished	[signature]	Farallon	4-27-17	1500
Received	[signature]	OSE	4/27/17	1500
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
*PCE, TCE, Cis-1,2 DCE, trans-1,2-DCE, 1,1-DCE, VC

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

May 15, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1705-089

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on May 5, 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: May 15, 2017
Samples Submitted: May 5, 2017
Laboratory Reference: 1705-089
Project: 397-044

Case Narrative

Samples were collected on May 4, 2017 and received by the laboratory on May 5, 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: May 15, 2017
Samples Submitted: May 5, 2017
Laboratory Reference: 1705-089
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-050417**					
Laboratory ID:	05-089-01					
Vinyl Chloride	5.5	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	20	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***105***	***77-129***				
Toluene-d8	***111***	***80-127***				
4-Bromofluorobenzene	***100***	***80-125***				

Date of Report: May 15, 2017
Samples Submitted: May 5, 2017
Laboratory Reference: 1705-089
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-050417**					
Laboratory ID:	05-089-02					
Vinyl Chloride	8.1	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	25	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***109***	***77-129***				
Toluene-d8	***112***	***80-127***				
4-Bromofluorobenzene	***99***	***80-125***				

Date of Report: May 15, 2017
Samples Submitted: May 5, 2017
Laboratory Reference: 1705-089
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-050417**					
Laboratory ID:	05-089-03					
Vinyl Chloride	6.1	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***108***	***77-129***				
Toluene-d8	***110***	***80-127***				
4-Bromofluorobenzene	***99***	***80-125***				

Date of Report: May 15, 2017
Samples Submitted: May 5, 2017
Laboratory Reference: 1705-089
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0508W2					
Vinyl Chloride	ND	0.20	EPA 8260C	5-8-17	5-8-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Trichloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-8-17	5-8-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***104***	***77-129***				
Toluene-d8	***109***	***80-127***				
4-Bromofluorobenzene	***97***	***80-125***				

Date of Report: May 15, 2017
Samples Submitted: May 5, 2017
Laboratory Reference: 1705-089
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0508W2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.8**	**10.3**	10.0	10.0	108	103	63-127	5	17	
Benzene	**10.7**	**10.1**	10.0	10.0	107	101	76-121	6	12	
Trichloroethene	**10.0**	**9.40**	10.0	10.0	100	94	64-120	6	15	
Toluene	**10.6**	**10.4**	10.0	10.0	106	104	82-120	2	13	
Chlorobenzene	**9.75**	**9.49**	10.0	10.0	98	95	80-120	3	14	
Surrogate:										
Dibromofluoromethane					***104***	***106***	***77-129***			
Toluene-d8					***110***	***105***	***80-127***			
4-Bromofluorobenzene					***95***	***96***	***80-125***			

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 Consulting
Project Number: 397-044
Project Name: 700 Dexter HVOC Plume
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 05-089

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	EFF-W-050417	5/4/17	1445	~~H2O~~	3
2	EFF-E-050417		1447		3
3	INF-050417		1449		3

DA

Lab ID	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C (PCE & Daughters)	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						X												
2						X												
3						X												

	Signature	Company	Date	Time
Relinquished		Farallon	5/5/17	623
Received		ACPHA	5/5/17	1030
Relinquished		ALPHA	5/5/17	11:12
Received			5/5/17	1112
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

- PCE, TCE, CIS-1,2 DCE trans-1,2 DCE, 1,1-DCE, VC

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

May 22, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1705-199

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on May 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: May 22, 2017
Samples Submitted: May 15, 2017
Laboratory Reference: 1705-199
Project: 397-044

Case Narrative

Samples were collected on May 12, 2017 and received by the laboratory on May 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: May 22, 2017
Samples Submitted: May 15, 2017
Laboratory Reference: 1705-199
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Eff_E_051217**					
Laboratory ID:	05-199-01					
Vinyl Chloride	5.7	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	18	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*102*	*80-125*				

Date of Report: May 22, 2017
Samples Submitted: May 15, 2017
Laboratory Reference: 1705-199
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Eff_W_051217**					
Laboratory ID:	05-199-02					
Vinyl Chloride	4.0	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	14	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*100*	*80-125*				

Date of Report: May 22, 2017
Samples Submitted: May 15, 2017
Laboratory Reference: 1705-199
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Inf_051217**					
Laboratory ID:	05-199-03					
Vinyl Chloride	32	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	37	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*103*	*80-125*				

Date of Report: May 22, 2017
Samples Submitted: May 15, 2017
Laboratory Reference: 1705-199
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0519W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Trichloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-19-17	5-19-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*108*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*95*	*80-125*				

Date of Report: May 22, 2017
Samples Submitted: May 15, 2017
Laboratory Reference: 1705-199
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0519W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.81**	**8.98**	10.0	10.0	88	90	63-127	2	17	
Benzene	**9.75**	**9.87**	10.0	10.0	98	99	76-121	1	12	
Trichloroethene	**9.15**	**9.22**	10.0	10.0	92	92	64-120	1	15	
Toluene	**10.2**	**10.2**	10.0	10.0	102	102	82-120	0	13	
Chlorobenzene	**9.18**	**9.38**	10.0	10.0	92	94	80-120	2	14	
Surrogate:										
Dibromofluoromethane					*109*	*107*	*77-129*			
Toluene-d8					*103*	*103*	*80-127*			
4-Bromofluorobenzene					*93*	*96*	*80-125*			

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: 397-044
Project Name: 700 Dexter HVOC Plume
Project Manager: Ted Cline
Sampled by: A.B/D.A.

Turnaround Request (in working days)

(Check One)

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

Laboratory Number: 05-199

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	Eff_E-051217	5.12.17	7:20	Water	3
2	Eff_W_051217		7:25		
3	Inf-051217		7:28		

Lab ID	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						X												
2						X												
3						X												

AB

	Signature	Company	Date	Time
Relinquished	D A	Farallon	5-15-17	615
Received	Van	Spdy	5/15/17	1:05
Relinquished	Van	Spdy	5/15/17	150
Received			5/15/17	1350
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* PCE & Daughters

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

June 2, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-016
Laboratory Reference No. 1705-305

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on May 24, 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: June 2, 2017
Samples Submitted: May 24, 2017
Laboratory Reference: 1705-305
Project: 397-016

Case Narrative

Samples were collected on May 23, 2017 and received by the laboratory on May 24, 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: June 2, 2017
Samples Submitted: May 24, 2017
Laboratory Reference: 1705-305
Project: 397-016

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-052317**					
Laboratory ID:	05-305-01					
Vinyl Chloride	4.1	0.20	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*90*	*80-125*				

Date of Report: June 2, 2017
Samples Submitted: May 24, 2017
Laboratory Reference: 1705-305
Project: 397-016

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-052317**					
Laboratory ID:	05-305-02					
Vinyl Chloride	6.5	0.20	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*77-129*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*95*	*80-125*				

Date of Report: June 2, 2017
Samples Submitted: May 24, 2017
Laboratory Reference: 1705-305
Project: 397-016

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-052317**					
Laboratory ID:	05-305-03					
Vinyl Chloride	35	0.40	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	36	0.40	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.40	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.40	EPA 8260C	5-31-17	5-31-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*93*	*80-125*				

Date of Report: June 2, 2017
Samples Submitted: May 24, 2017
Laboratory Reference: 1705-305
Project: 397-016

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0531W1					
Vinyl Chloride	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Trichloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Tetrachloroethene	ND	0.20	EPA 8260C	5-31-17	5-31-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*94*	*80-125*				

Date of Report: June 2, 2017
Samples Submitted: May 24, 2017
Laboratory Reference: 1705-305
Project: 397-016

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0531W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.1**	**10.1**	10.0	10.0	101	101	63-127	0	17	
Benzene	**9.76**	**10.7**	10.0	10.0	98	107	76-121	9	12	
Trichloroethene	**9.48**	**9.45**	10.0	10.0	95	95	64-120	0	15	
Toluene	**10.1**	**9.93**	10.0	10.0	101	99	82-120	2	13	
Chlorobenzene	**9.56**	**10.0**	10.0	10.0	96	100	80-120	4	14	
Surrogate:										
Dibromofluoromethane					*102*	*106*	*77-129*			
Toluene-d8					*101*	*97*	*80-127*			
4-Bromofluorobenzene					*86*	*94*	*80-125*			

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 Consulting
Project Number: 397-016
Project Name: 700 Dexter HVOC Plume
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 05-305

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	EFF-W-052317	5/23/17	0200	H_2O	3						X												
2	EFF-E-052317	↓	0205		3						X												
3	INF-052317	↓	0208		3						X												

DA

	Signature	Company	Date	Time
Relinquished		Farallon	5/23/17	0610
Received		ORE	5/23/17	1200
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* PCE and daughters

Thanks

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

June 9, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1706-037

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 3, 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: June 9, 2017
Samples Submitted: June 3, 2017
Laboratory Reference: 1706-037
Project: 397-044

Case Narrative

Samples were collected on June 2, 2017 and received by the laboratory on June 3, 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: June 9, 2017
Samples Submitted: June 3, 2017
Laboratory Reference: 1706-037
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-060217**					
Laboratory ID:	06-037-01					
Vinyl Chloride	4.1	0.20	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	15	0.20	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: June 9, 2017
Samples Submitted: June 3, 2017
Laboratory Reference: 1706-037
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-060217**					
Laboratory ID:	06-037-02					
Vinyl Chloride	7.5	0.20	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: June 9, 2017
Samples Submitted: June 3, 2017
Laboratory Reference: 1706-037
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-060217**					
Laboratory ID:	06-037-03					
Vinyl Chloride	35	0.40	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	41	0.40	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.40	EPA 8260C	6-6-17	6-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*77-129*				
Toluene-d8	*94*	*80-127*				
4-Bromofluorobenzene	*94*	*78-125*				

Date of Report: June 9, 2017
Samples Submitted: June 3, 2017
Laboratory Reference: 1706-037
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0606W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-6-17	6-6-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Trichloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-6-17	6-6-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: June 9, 2017
Samples Submitted: June 3, 2017
Laboratory Reference: 1706-037
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0606W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.4**	**10.2**	10.0	10.0	104	102	63-127	2	17	
Benzene	**10.4**	**10.4**	10.0	10.0	104	104	76-121	0	12	
Trichloroethene	**9.02**	**9.22**	10.0	10.0	90	92	64-120	2	15	
Toluene	**10.6**	**10.8**	10.0	10.0	106	108	82-120	2	13	
Chlorobenzene	**10.0**	**10.2**	10.0	10.0	100	102	80-120	2	14	
Surrogate:										
Dibromofluoromethane					*99*	*98*	*77-129*			
Toluene-d8					*102*	*102*	*80-127*			
4-Bromofluorobenzene					*101*	*101*	*78-125*			

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: 397-044
Project Name: IA TREATMENT
Project Manager: TAD CLARK
Sampled by: RUSSELL WITH

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: 06-037

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	EFF-U-060217	6/2/17	1645	U	3						X												
2	EFF-B-060217	↓	1650	↓	↓						X												
3	INF-060217	↓	1655	↓	↓						X												

	Signature	Company	Date	Time
Relinquished		FARALLON	6-3-17	1025
Received		OnSite Env	6/3/17	1025
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

- INCLUDE RL ON ~~EDB~~ EDB REPORT
- PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1 DCE AND VC

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

June 21, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1706-190

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 16, 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: June 21, 2017
Samples Submitted: June 16, 2017
Laboratory Reference: 1706-190
Project: 397-044

Case Narrative

Samples were collected on June 15, 2017 and received by the laboratory on June 16, 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: June 21, 2017
Samples Submitted: June 16, 2017
Laboratory Reference: 1706-190
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF_061517**					
Laboratory ID:	06-190-01					
Vinyl Chloride	41	0.40	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	49	0.40	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.40	EPA 8260C	6-19-17	6-19-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***117***	***77-129***				
Toluene-d8	***95***	***80-127***				
4-Bromofluorobenzene	***101***	***78-125***				

Date of Report: June 21, 2017
Samples Submitted: June 16, 2017
Laboratory Reference: 1706-190
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF_W_061517**					
Laboratory ID:	06-190-02					
Vinyl Chloride	4.8	0.20	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***117***	***77-129***				
Toluene-d8	***96***	***80-127***				
4-Bromofluorobenzene	***99***	***78-125***				

Date of Report: June 21, 2017
Samples Submitted: June 16, 2017
Laboratory Reference: 1706-190
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF_E_061517**					
Laboratory ID:	06-190-03					
Vinyl Chloride	8.1	0.20	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	25	0.20	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***117***	***77-129***				
Toluene-d8	***97***	***80-127***				
4-Bromofluorobenzene	***99***	***78-125***				

Date of Report: June 21, 2017
Samples Submitted: June 16, 2017
Laboratory Reference: 1706-190
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0619W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-19-17	6-19-17	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Trichloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-19-17	6-19-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***110***	***77-129***				
Toluene-d8	***97***	***80-127***				
4-Bromofluorobenzene	***98***	***78-125***				

Date of Report: June 21, 2017
Samples Submitted: June 16, 2017
Laboratory Reference: 1706-190
Project: 397-044

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0619W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**11.2**	**10.9**	10.0	10.0	112	109	63-127	3	17	
Benzene	**11.0**	**11.1**	10.0	10.0	110	111	76-121	1	12	
Trichloroethene	**8.98**	**8.95**	10.0	10.0	90	90	64-120	0	15	
Toluene	**10.4**	**10.5**	10.0	10.0	104	105	82-120	1	13	
Chlorobenzene	**9.14**	**9.01**	10.0	10.0	91	90	80-120	1	14	
Surrogate:										
Dibromofluoromethane					***100***	***120***	***77-129***			
Toluene-d8					***96***	***104***	***80-127***			
4-Bromofluorobenzene					***97***	***93***	***78-125***			

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: 397-044
Project Name: 1A TREATMENT
Project Manager: TAD C. E
Sampled by: RUSSELL LUITEN

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: 06-190

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	INF_061517	06/15	1415	W	3						X												
2	EFF_W_061517	↓	1405	↓	↓						↓												
3	EFF_E_061517	↓	1410	↓	↓						↓												

	Signature	Company	Date	Time
Relinquished		FARALLON	6/16	
Received	RLM	alpha	6/16	10:30
Relinquished	RLM	alpha	6/16	11:50
Received			6/16/17	1150
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PCE, TCE, cis-1,2 DCE, + RMS -1,2 DCE, 1,1-DCE, + VC

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

June 30, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1706-314

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on June 27, 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: June 30, 2017
Samples Submitted: June 27, 2017
Laboratory Reference: 1706-314
Project: 397-044

Case Narrative

Samples were collected on June 27, 2017 and received by the laboratory on June 27, 2017. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}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: June 30, 2017
Samples Submitted: June 27, 2017
Laboratory Reference: 1706-314
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-062717**					
Laboratory ID:	06-314-01					
Vinyl Chloride	39	0.40	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	38	0.40	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.40	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.40	EPA 8260C	6-29-17	6-29-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*119*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*97*	*78-125*				

Date of Report: June 30, 2017
Samples Submitted: June 27, 2017
Laboratory Reference: 1706-314
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-062717**					
Laboratory ID:	06-314-02					
Vinyl Chloride	3.0	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	10	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*113*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

Date of Report: June 30, 2017
Samples Submitted: June 27, 2017
Laboratory Reference: 1706-314
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-062717**					
Laboratory ID:	06-314-03					
Vinyl Chloride	5.8	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*117*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*97*	*78-125*				

Date of Report: June 30, 2017
Samples Submitted: June 27, 2017
Laboratory Reference: 1706-314
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0629W1					
Vinyl Chloride	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Trichloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	6-29-17	6-29-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: June 30, 2017
Samples Submitted: June 27, 2017
Laboratory Reference: 1706-314
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0629W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**11.3**	**10.9**	10.0	10.0	113	109	63-127	4	17	
Benzene	**10.7**	**10.4**	10.0	10.0	107	104	76-121	3	12	
Trichloroethene	**9.55**	**8.85**	10.0	10.0	96	89	64-120	8	15	
Toluene	**10.7**	**9.94**	10.0	10.0	107	99	82-120	7	13	
Chlorobenzene	**10.1**	**9.26**	10.0	10.0	101	93	80-120	9	14	
Surrogate:										
Dibromofluoromethane					*98*	*103*	*77-129*			
Toluene-d8					*102*	*102*	*80-127*			
4-Bromofluorobenzene					*99*	*98*	*78-125*			

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 Consulting
Project Number: 397-044
Project Name: 700 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 06-314

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 PCE TCE daughters	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	INF-062717	6/27/17	340	H_2O	3						X																
2	EFF-W-062717	↓	0342	↓	3						X																
3	EFF-E-062717	↓	0344	↓	3						X																

	Signature	Company	Date	Time
Relinquished	[signature]	Farallon Consulting	6/27/17	0530
Received	[signature]	ORE	6/27/17	1200
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
• PCE and daughters

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

July 12, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1707-074

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 10, 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: July 12, 2017
Samples Submitted: July 10, 2017
Laboratory Reference: 1707-074
Project: 397-044

Case Narrative

Samples were collected on July 7, 2017 and received by the laboratory on July 10, 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: July 12, 2017
Samples Submitted: July 10, 2017
Laboratory Reference: 1707-074
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-070717**					
Laboratory ID:	07-074-01					
Vinyl Chloride	3.6	0.20	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*77-129*				
Toluene-d8	*92*	*80-127*				
4-Bromofluorobenzene	*102*	*78-125*				

Date of Report: July 12, 2017
Samples Submitted: July 10, 2017
Laboratory Reference: 1707-074
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-070717**					
Laboratory ID:	07-074-02					
Vinyl Chloride	6.5	0.20	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	25	0.20	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*106*	*78-125*				

Date of Report: July 12, 2017
Samples Submitted: July 10, 2017
Laboratory Reference: 1707-074
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-070717**					
Laboratory ID:	07-074-03					
Vinyl Chloride	32	0.40	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	49	0.40	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.40	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.40	EPA 8260C	7-11-17	7-11-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*104*	*78-125*				

Date of Report: July 12, 2017
Samples Submitted: July 10, 2017
Laboratory Reference: 1707-074
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0711W1					
Vinyl Chloride	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Trichloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-11-17	7-11-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*106*	*78-125*				

Date of Report: July 12, 2017
Samples Submitted: July 10, 2017
Laboratory Reference: 1707-074
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0711W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.0**	**10.4**	10.0	10.0	100	104	63-127	4	17	
Benzene	**10.7**	**10.8**	10.0	10.0	107	108	76-121	1	12	
Trichloroethene	**8.97**	**9.10**	10.0	10.0	90	91	64-120	1	15	
Toluene	**10.8**	**10.9**	10.0	10.0	108	109	82-120	1	13	
Chlorobenzene	**9.24**	**9.41**	10.0	10.0	92	94	80-120	2	14	
Surrogate:										
Dibromofluoromethane					*98*	*96*	*77-129*			
Toluene-d8					*96*	*93*	*80-127*			
4-Bromofluorobenzene					*105*	*102*	*78-125*			

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 Consulting
Project Number: 897-044
Project Name: 700 Dexter HVOC Plume
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 07-074

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	EFF-W-070717	7-7-17	1430	H_2O	3						X																
2	EFF-E-070717	↓	1433	↓	3						X																
3	INF-070717	↓	1436	↓	3						X																

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	D. Az	Farallon	7/10/17	0800	* PCE and daughters
Received		QSS	7/10/17	1205	
Relinquished					
Received					
Relinquished					
Received					Data Package: Standard ☐ Level III ☐ Level IV ☐
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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

July 20, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1707-141

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 17, 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: July 20, 2017
Samples Submitted: July 17, 2017
Laboratory Reference: 1707-141
Project: 397-044

Case Narrative

Samples were collected on July 14, 2017 and received by the laboratory on July 17, 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: July 20, 2017
Samples Submitted: July 17, 2017
Laboratory Reference: 1707-141
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-071417**					
Laboratory ID:	07-141-01					
Vinyl Chloride	1.4	0.20	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*96*	*80-127*				
4-Bromofluorobenzene	*108*	*78-125*				

Date of Report: July 20, 2017
Samples Submitted: July 17, 2017
Laboratory Reference: 1707-141
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-071417**					
Laboratory ID:	07-141-02					
Vinyl Chloride	2.2	0.20	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*77-129*				
Toluene-d8	*93*	*80-127*				
4-Bromofluorobenzene	*104*	*78-125*				

Date of Report: July 20, 2017
Samples Submitted: July 17, 2017
Laboratory Reference: 1707-141
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-071417**					
Laboratory ID:	07-141-03					
Vinyl Chloride	25	0.40	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	50	0.40	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.40	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.40	EPA 8260C	7-18-17	7-18-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*77-129*				
Toluene-d8	*94*	*80-127*				
4-Bromofluorobenzene	*107*	*78-125*				

Date of Report: July 20, 2017
Samples Submitted: July 17, 2017
Laboratory Reference: 1707-141
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0718W1					
Vinyl Chloride	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Trichloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-18-17	7-18-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*77-129*				
Toluene-d8	*93*	*80-127*				
4-Bromofluorobenzene	*105*	*78-125*				

Date of Report: July 20, 2017
Samples Submitted: July 17, 2017
Laboratory Reference: 1707-141
Project: 397-044

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0718W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.44**	**9.53**	10.0	10.0	94	95	63-127	1	17	
Benzene	**10.6**	**10.9**	10.0	10.0	106	109	76-121	3	12	
Trichloroethene	**8.83**	**8.99**	10.0	10.0	88	90	64-120	2	15	
Toluene	**10.8**	**11.1**	10.0	10.0	108	111	82-120	3	13	
Chlorobenzene	**9.19**	**9.34**	10.0	10.0	92	93	80-120	2	14	
Surrogate:										
Dibromofluoromethane					*96*	*96*	*77-129*			
Toluene-d8					*95*	*93*	*80-127*			
4-Bromofluorobenzene					*109*	*106*	*78-125*			

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: 397-044
Project Name: 700 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 07-141

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	EFF-W-071417	7/14/17	1220	H_2O	3						X												
2	EFF-E-071417	↓	1223	↓	3						X												
3	INF-071417	↓	1225	↓	3						X												

	Signature	Company	Date	Time
Relinquished		Farallon	7/14/17	1508
Received			7/17/17	1200
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* PCE and Daughters

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

July 21, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1707-195

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 20, 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: July 21, 2017
Samples Submitted: July 20, 2017
Laboratory Reference: 1707-195
Project: 397-044

Case Narrative

Samples were collected on July 20, 2017 and received by the laboratory on July 20, 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: July 21, 2017
Samples Submitted: July 20, 2017
Laboratory Reference: 1707-195
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-072017**					
Laboratory ID:	07-195-01					
Vinyl Chloride	4.4	0.20	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	20	0.20	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*77-129*				
Toluene-d8	*90*	*80-127*				
4-Bromofluorobenzene	*107*	*78-125*				

Date of Report: July 21, 2017
Samples Submitted: July 20, 2017
Laboratory Reference: 1707-195
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-072017**					
Laboratory ID:	07-195-02					
Vinyl Chloride	4.8	0.20	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	21	0.20	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*108*	*78-125*				

Date of Report: July 21, 2017
Samples Submitted: July 20, 2017
Laboratory Reference: 1707-195
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-072017**					
Laboratory ID:	07-195-03					
Vinyl Chloride	32	0.40	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	52	0.40	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.40	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.40	EPA 8260C	7-20-17	7-20-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*77-129*				
Toluene-d8	*93*	*80-127*				
4-Bromofluorobenzene	*106*	*78-125*				

Date of Report: July 21, 2017
Samples Submitted: July 20, 2017
Laboratory Reference: 1707-195
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0720W1					
Vinyl Chloride	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Trichloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Tetrachloroethene	ND	0.20	EPA 8260C	7-20-17	7-20-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*96*	*80-127*				
4-Bromofluorobenzene	*108*	*78-125*				

Date of Report: July 21, 2017
Samples Submitted: July 20, 2017
Laboratory Reference: 1707-195
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0720W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.0**	**9.62**	10.0	10.0	100	96	63-127	4	17	
Benzene	**11.6**	**11.5**	10.0	10.0	116	115	76-121	1	12	
Trichloroethene	**9.02**	**9.12**	10.0	10.0	90	91	64-120	1	15	
Toluene	**11.2**	**11.2**	10.0	10.0	112	112	82-120	0	13	
Chlorobenzene	**9.17**	**9.28**	10.0	10.0	92	93	80-120	1	14	
Surrogate:										
Dibromofluoromethane					*101*	*101*	*77-129*			
Toluene-d8					*95*	*96*	*80-127*			
4-Bromofluorobenzene					*107*	*110*	*78-125*			

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

Laboratory Number: 07-195

Company: Farallon Consulting
Project Number: 397-044
Project Name: 700 Dexter HVOC Plume
Project Manager: Tad Eline
Sampled by: Daniel Aguilar

Turnaround Request (in working days)
(Check One)
- [x] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [x] 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	Eff-w-072017	7/20/17	1044	H_2O	3						X																
2	Eff-E-072017		1048		3						X																
3	Inf-072017		1053		3						X																

	Signature	Company	Date	Time
Relinquished		Farallon	7/20/17	1205
Received			7/20/17	1205
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* PCE and daughters

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

August 9, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1707-323

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on July 31, 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 9, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-323
Project: 397-044

Case Narrative

Samples were collected on July 31, 2017 and received by the laboratory on July 31, 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 9, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-323
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-073117**					
Laboratory ID:	07-323-01					
Vinyl Chloride	2.0	0.20	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	13	0.20	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*77-129*				
Toluene-d8	*90*	*80-127*				
4-Bromofluorobenzene	*90*	*78-125*				

Date of Report: August 9, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-323
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-073117**					
Laboratory ID:	07-323-02					
Vinyl Chloride	3.8	0.20	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	19	0.20	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*77-129*				
Toluene-d8	*90*	*80-127*				
4-Bromofluorobenzene	*89*	*78-125*				

Date of Report: August 9, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-323
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-073117**					
Laboratory ID:	07-323-03					
Vinyl Chloride	23	0.40	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	46	0.40	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.40	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.40	EPA 8260C	8-4-17	8-4-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*99*	*78-125*				

Date of Report: August 9, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-323
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0804W1					
Vinyl Chloride	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Trichloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-4-17	8-4-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*94*	*78-125*				

Date of Report: August 9, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-323
Project: 397-044

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0804W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.33**	**8.81**	10.0	10.0	83	88	63-127	6	17	
Benzene	**8.83**	**9.82**	10.0	10.0	88	98	76-121	11	12	
Trichloroethene	**7.57**	**7.97**	10.0	10.0	76	80	64-120	5	15	
Toluene	**8.67**	**9.61**	10.0	10.0	87	96	82-120	10	13	
Chlorobenzene	**8.14**	**9.21**	10.0	10.0	81	92	80-120	12	14	
Surrogate:										
Dibromofluoromethane					*101*	*100*	*77-129*			
Toluene-d8					*96*	*96*	*80-127*			
4-Bromofluorobenzene					*96*	*97*	*78-125*			

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

Laboratory Number: 07-323

Company: Farallon Consulting
Project Number: 397-044
Project Name: 760 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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	EFF-W-073117	7/31/17	1210	H_2O	3						X												
2	EFF-E-073117	↓	1213	↓	3						X												
3	INF-073117	↓	1215	↓	3						X												

	Signature	Company	Date	Time
Relinquished		Farallon	7/31/17	1330
Received			7/31/17	1630
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* PCE and Daughters

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

August 17, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1708-119

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on August 9, 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 17, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-119
Project: 397-044

Case Narrative

Samples were collected on August 9, 2017 and received by the laboratory on August 9, 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

Date of Report: August 17, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-119
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-080917**					
Laboratory ID:	08-119-01					
Vinyl Chloride	4.1	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	20	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*94*	*78-125*				

Date of Report: August 17, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-119
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-080917**					
Laboratory ID:	08-119-02					
Vinyl Chloride	3.9	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	19	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*77-129*				
Toluene-d8	*117*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

Date of Report: August 17, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-119
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-080917**					
Laboratory ID:	08-119-03					
Vinyl Chloride	30	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	50	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*90*	*78-125*				

Date of Report: August 17, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-119
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0810W1					
Vinyl Chloride	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-10-17	8-10-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*77-129*				
Toluene-d8	*88*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: August 17, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-119
Project: 397-044

VOLATILES by EPA 8260C
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-110-07										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**10.1**	**10.0**	10.0	10.0	ND	101	100	65-119	1	15	
Benzene	**10.8**	**10.9**	10.0	10.0	ND	108	109	75-117	1	15	
Trichloroethene	**9.30**	**9.27**	10.0	10.0	ND	93	93	66-120	0	15	
Toluene	**9.22**	**9.89**	10.0	10.0	ND	92	99	79-120	7	15	
Chlorobenzene	**10.7**	**10.0**	10.0	10.0	ND	107	100	76-120	7	15	
Surrogate:											
Dibromofluoromethane						*105*	*106*	*77-129*			
Toluene-d8						*90*	*95*	*80-127*			
4-Bromofluorobenzene						*93*	*90*	*78-125*			

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

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

Company: Farallon Consulting
Project Number: 397-044
Project Name: 700 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 08-119

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	EFF-W-080917	8-9-17	0030	H_2O	3						X												
2	EFF-E-080917	↓	0034	↓	3						X												
3	INF-080917	↓	0038	↓	3						X												

	Signature	Company	Date	Time
Relinquished		Farallon	9-9-17	0503
Received		ORE	9/9/17	1120
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* PCE and daughters.

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

August 22, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1708-243

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on August 18, 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 22, 2017
Samples Submitted: August 18, 2017
Laboratory Reference: 1708-243
Project: 397-044

Case Narrative

Samples were collected on August 18, 2017 and received by the laboratory on August 18, 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 22, 2017
Samples Submitted: August 18, 2017
Laboratory Reference: 1708-243
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-081817**					
Laboratory ID:	08-243-01					
Vinyl Chloride	2.9	0.20	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	0.69	0.20	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*112*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: August 22, 2017
Samples Submitted: August 18, 2017
Laboratory Reference: 1708-243
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-081817**					
Laboratory ID:	08-243-02					
Vinyl Chloride	1.4	0.20	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	1.2	0.20	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	10	0.20	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*110*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*101*	*78-125*				

Date of Report: August 22, 2017
Samples Submitted: August 18, 2017
Laboratory Reference: 1708-243
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-081817**					
Laboratory ID:	08-243-03					
Vinyl Chloride	24	0.40	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	43	0.40	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.40	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.40	EPA 8260C	8-21-17	8-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: August 22, 2017
Samples Submitted: August 18, 2017
Laboratory Reference: 1708-243
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0821W1					
Vinyl Chloride	ND	0.20	EPA 8260C	8-21-17	8-21-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Trichloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Tetrachloroethene	ND	0.20	EPA 8260C	8-21-17	8-21-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*109*	*77-129*				
Toluene-d8	*100*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

Date of Report: August 22, 2017
Samples Submitted: August 18, 2017
Laboratory Reference: 1708-243
Project: 397-044

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0821W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.84**	**9.28**	10.0	10.0	98	93	63-127	6	17	
Benzene	**10.8**	**10.5**	10.0	10.0	108	105	76-121	3	12	
Trichloroethene	**9.60**	**9.37**	10.0	10.0	96	94	64-120	2	15	
Toluene	**10.4**	**10.4**	10.0	10.0	104	104	82-120	0	13	
Chlorobenzene	**10.7**	**10.3**	10.0	10.0	107	103	80-120	4	14	
Surrogate:										
Dibromofluoromethane					*105*	*108*	*77-129*			
Toluene-d8					*99*	*101*	*80-127*			
4-Bromofluorobenzene					*95*	*98*	*78-125*			

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: 397-044
Project Name: ~~Block 37~~ 700 Dexter
Project Manager: ~~Brent Jaeista~~ Jad Cline
Sampled by: R. Ostrom, D. Aguilar

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: 08-243

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	EFF-E-081817	8/18/17	1100	W	3						X																
2	EFF-W-081817	↓	1102	↓	↓						X																
3	INF-081817	↓	1105	↓	↓						X																

RD

	Signature	Company	Date	Time
Relinquished	Ryan Ostrom	Farallon	8/18/17	1430
Received	[illegible]	OSE	8.18.17	2:30p
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* Only analyze for PCE & daughter products.

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

September 8, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1708-398

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on August 31, 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: September 8, 2017
Samples Submitted: August 31, 2017
Laboratory Reference: 1708-398
Project: 397-044

Case Narrative

Samples were collected on August 30, 2017 and received by the laboratory on August 31, 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: September 8, 2017
Samples Submitted: August 31, 2017
Laboratory Reference: 1708-398
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-083017**					
Laboratory ID:	08-398-01					
Vinyl Chloride	1.3	0.20	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	0.94	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	10	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*77-129*				
Toluene-d8	*94*	*80-127*				
4-Bromofluorobenzene	*94*	*78-125*				

Date of Report: September 8, 2017
Samples Submitted: August 31, 2017
Laboratory Reference: 1708-398
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-083017**					
Laboratory ID:	08-398-02					
Vinyl Chloride	2.1	0.20	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	1.2	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	14	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*77-129*				
Toluene-d8	*101*	*80-127*				
4-Bromofluorobenzene	*96*	*78-125*				

Date of Report: September 8, 2017
Samples Submitted: August 31, 2017
Laboratory Reference: 1708-398
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-083017**					
Laboratory ID:	08-398-03					
Vinyl Chloride	24	0.40	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	42	0.40	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.40	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*77-129*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*94*	*78-125*				

Date of Report: September 8, 2017
Samples Submitted: August 31, 2017
Laboratory Reference: 1708-398
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0907W1					
Vinyl Chloride	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Trichloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-7-17	9-7-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*97*	*78-125*				

Date of Report: September 8, 2017
Samples Submitted: August 31, 2017
Laboratory Reference: 1708-398
Project: 397-044

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-019-05										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**8.98**	**9.66**	10.0	10.0	ND	90	97	65-119	7	15	
Benzene	**9.35**	**10.3**	10.0	10.0	ND	94	103	75-117	10	15	
Trichloroethene	**9.33**	**9.89**	10.0	10.0	ND	93	99	66-120	6	15	
Toluene	**9.48**	**10.2**	10.0	10.0	ND	95	102	79-120	7	15	
Chlorobenzene	**9.79**	**10.6**	10.0	10.0	ND	98	106	76-120	8	15	
Surrogate:											
Dibromofluoromethane						*99*	*104*	*77-129*			
Toluene-d8						*98*	*101*	*80-127*			
4-Bromofluorobenzene						*96*	*98*	*78-125*			

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

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: 397-044
Project Name: 700 Dexter HVOC Plume T1
Project Manager: Ted Cline
Sampled by: Daniel Aguilar

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: 08-398

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	EFF-W-083017	8/30/17	~~1247~~ 1447	~~Soil~~ H_2O	3
2	EFF-E-083017		~~1250~~ 1450	H_2O	3
3	INF-083017		~~1253~~ 1453	H_2O	3

Lab ID	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						X																X
2						X																X
3						X																X

	Signature	Company	Date	Time
Relinquished		Farallon	8/30/17	1630
Received		Alpha	8/31/17	10:10
Relinquished		Alpha	8/31/17	11:30
Received		OSE	8/31/17	1130
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* PCE and daughters

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

September 14, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1709-137

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on September 13, 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: September 14, 2017
Samples Submitted: September 13, 2017
Laboratory Reference: 1709-137
Project: 397-044

Case Narrative

Samples were collected on September 12, 2017 and received by the laboratory on September 13, 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: September 14, 2017
Samples Submitted: September 13, 2017
Laboratory Reference: 1709-137
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-091217**					
Laboratory ID:	09-137-01					
Vinyl Chloride	1.9	0.20	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	12	0.20	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*109*	*77-129*				
Toluene-d8	*102*	*80-127*				
4-Bromofluorobenzene	*99*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 13, 2017
Laboratory Reference: 1709-137
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-091217**					
Laboratory ID:	09-137-02					
Vinyl Chloride	2.9	0.20	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	17	0.20	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*113*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*101*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 13, 2017
Laboratory Reference: 1709-137
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-091217**					
Laboratory ID:	09-137-03					
Vinyl Chloride	24	0.40	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	48	0.40	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.40	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.40	EPA 8260C	9-14-17	9-14-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*112*	*77-129*				
Toluene-d8	*103*	*80-127*				
4-Bromofluorobenzene	*99*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 13, 2017
Laboratory Reference: 1709-137
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0914W1					
Vinyl Chloride	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Trichloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-14-17	9-14-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*77-129*				
Toluene-d8	*104*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

Date of Report: September 14, 2017
Samples Submitted: September 13, 2017
Laboratory Reference: 1709-137
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0914W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.48**	**8.33**	10.0	10.0	85	83	63-127	2	17	
Benzene	**9.90**	**9.82**	10.0	10.0	99	98	76-121	1	12	
Trichloroethene	**9.23**	**9.07**	10.0	10.0	92	91	64-120	2	15	
Toluene	**9.93**	**9.86**	10.0	10.0	99	99	82-120	1	13	
Chlorobenzene	**9.87**	**9.63**	10.0	10.0	99	96	80-120	2	14	
Surrogate:										
Dibromofluoromethane					*103*	*108*	*77-129*			
Toluene-d8					*103*	*104*	*80-127*			
4-Bromofluorobenzene					*97*	*99*	*78-125*			

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: 397-044
Project Name: 700 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 09-137

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	EFF-W-091217	9/12/17	1340	H_2O	3						X												
2	EFF-E-091217		1343		3						X												
3	INF-091217		1346		3						X												

	Signature	Company	Date	Time
Relinquished		Farallon	9/13/17	748
Received			9/13/17	1215
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* PCE and degradation products

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

October 5, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1709-362

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on September 28, 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: October 5, 2017
Samples Submitted: September 28, 2017
Laboratory Reference: 1709-362
Project: 397-044

Case Narrative

Samples were collected on September 27, 2017 and received by the laboratory on September 28, 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: October 5, 2017
Samples Submitted: September 28, 2017
Laboratory Reference: 1709-362
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-092717**					
Laboratory ID:	09-362-01					
Vinyl Chloride	2.8	0.20	EPA 8260C	9-29-17	9-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	9-29-17	9-29-17	
Trichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***91***	***77-129***				
Toluene-d8	***95***	***80-127***				
4-Bromofluorobenzene	***98***	***78-125***				

Date of Report: October 5, 2017
Samples Submitted: September 28, 2017
Laboratory Reference: 1709-362
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-092717**					
Laboratory ID:	09-362-02					
Vinyl Chloride	2.9	0.20	EPA 8260C	9-29-17	9-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	9-29-17	9-29-17	
Trichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***91***	***77-129***				
Toluene-d8	***95***	***80-127***				
4-Bromofluorobenzene	***98***	***78-125***				

Date of Report: October 5, 2017
Samples Submitted: September 28, 2017
Laboratory Reference: 1709-362
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-092717**					
Laboratory ID:	09-362-03					
Vinyl Chloride	23	0.40	EPA 8260C	9-29-17	9-29-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	9-29-17	9-29-17	
(cis) 1,2-Dichloroethene	44	0.40	EPA 8260C	9-29-17	9-29-17	
Trichloroethene	ND	0.40	EPA 8260C	9-29-17	9-29-17	
Tetrachloroethene	ND	0.40	EPA 8260C	9-29-17	9-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***89***	***77-129***				
Toluene-d8	***93***	***80-127***				
4-Bromofluorobenzene	***97***	***78-125***				

Date of Report: October 5, 2017
Samples Submitted: September 28, 2017
Laboratory Reference: 1709-362
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0929W1					
Vinyl Chloride	ND	0.20	EPA 8260C	9-29-17	9-29-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Trichloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Tetrachloroethene	ND	0.20	EPA 8260C	9-29-17	9-29-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***92***	***77-129***				
Toluene-d8	***95***	***80-127***				
4-Bromofluorobenzene	***98***	***78-125***				

Date of Report: October 5, 2017
Samples Submitted: September 28, 2017
Laboratory Reference: 1709-362
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0929W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.99**	**8.91**	10.0	10.0	90	89	63-127	1	17	
Benzene	**9.75**	**9.78**	10.0	10.0	98	98	76-121	0	12	
Trichloroethene	**8.95**	**8.86**	10.0	10.0	90	89	64-120	1	15	
Toluene	**9.69**	**9.66**	10.0	10.0	97	97	82-120	0	13	
Chlorobenzene	**9.84**	**9.76**	10.0	10.0	98	98	80-120	1	14	
Surrogate:										
Dibromofluoromethane					***87***	***90***	***77-129***			
Toluene-d8					***94***	***94***	***80-127***			
4-Bromofluorobenzene					***98***	***98***	***78-125***			

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 Consulting
Project Number: 397-044
Project Name: 700 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 09-362

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	EFF-W-092717	9/27/17	1343	H_2O	3
2	EFF-E-092717		1346		3
3	INF-092717		1349		3

Lab ID	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						X												
2						X												
3						X												

	Signature	Company	Date	Time
Relinquished		Farallon	9/27/17	1545
Received			9/28/17	1500
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* PCE and degradation products

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

October 11, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1710-085

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on October 6, 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: October 11, 2017
Samples Submitted: October 6, 2017
Laboratory Reference: 1710-085
Project: 397-044

Case Narrative

Samples were collected on October 5, 2017 and received by the laboratory on October 6, 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: October 11, 2017
Samples Submitted: October 6, 2017
Laboratory Reference: 1710-085
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-100517**					
Laboratory ID:	10-085-01					
Vinyl Chloride	1.7	0.20	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	11	0.20	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*77-129*				
Toluene-d8	*96*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: October 11, 2017
Samples Submitted: October 6, 2017
Laboratory Reference: 1710-085
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-100517**					
Laboratory ID:	10-085-02					
Vinyl Chloride	2.8	0.20	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*77-129*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*99*	*78-125*				

Date of Report: October 11, 2017
Samples Submitted: October 6, 2017
Laboratory Reference: 1710-085
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-100517**					
Laboratory ID:	10-085-03					
Vinyl Chloride	25	0.40	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	48	0.40	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.40	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.40	EPA 8260C	10-9-17	10-9-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*77-129*				
Toluene-d8	*96*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

Date of Report: October 11, 2017
Samples Submitted: October 6, 2017
Laboratory Reference: 1710-085
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1009W1					
Vinyl Chloride	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Trichloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-9-17	10-9-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*77-129*				
Toluene-d8	*94*	*80-127*				
4-Bromofluorobenzene	*98*	*78-125*				

Date of Report: October 11, 2017
Samples Submitted: October 6, 2017
Laboratory Reference: 1710-085
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1009W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.3**	**10.1**	10.0	10.0	103	101	63-127	2	17	
Benzene	**10.4**	**10.6**	10.0	10.0	104	106	76-121	2	12	
Trichloroethene	**9.48**	**9.18**	10.0	10.0	95	92	64-120	3	15	
Toluene	**10.2**	**10.2**	10.0	10.0	102	102	82-120	0	13	
Chlorobenzene	**10.3**	**9.83**	10.0	10.0	103	98	80-120	5	14	
Surrogate:										
Dibromofluoromethane					*91*	*94*	*77-129*			
Toluene-d8					*94*	*95*	*80-127*			
4-Bromofluorobenzene					*97*	*97*	*78-125*			

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 Consulting
Project Number: 397-044
Project Name: 700 Dexter HVOC Plume
Project Manager: Tad Cline
Sampled by: Daniel Aguilar

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: 10-085

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	Eff-W-100517	10/5/17	923	H_2O	3						X												
2	Eff-E-100517	↓	926	↓	3						X												
3	Inf-100517	↓	929	↓	3						X												

DF

	Signature	Company	Date	Time
Relinquished		Farallon	10/5/17	1655
Received			10/6/17	1200
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* PCE and daughter products

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

October 31, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1710-360

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on October 26, 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: October 31, 2017
Samples Submitted: October 26, 2017
Laboratory Reference: 1710-360
Project: 397-044

Case Narrative

Samples were collected on October 24, 2017 and received by the laboratory on October 26, 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: October 31, 2017
Samples Submitted: October 26, 2017
Laboratory Reference: 1710-360
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-102417**					
Laboratory ID:	10-360-01					
Vinyl Chloride	47	0.40	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	72	0.40	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.40	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.40	EPA 8260C	10-27-17	10-27-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***111***	***75-127***				
Toluene-d8	***99***	***80-127***				
4-Bromofluorobenzene	***110***	***78-125***				

Date of Report: October 31, 2017
Samples Submitted: October 26, 2017
Laboratory Reference: 1710-360
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-W-102417**					
Laboratory ID:	10-360-02					
Vinyl Chloride	4.9	0.20	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***106***	***75-127***				
Toluene-d8	***97***	***80-127***				
4-Bromofluorobenzene	***105***	***78-125***				

Date of Report: October 31, 2017
Samples Submitted: October 26, 2017
Laboratory Reference: 1710-360
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EFF-E-102417**					
Laboratory ID:	10-360-03					
Vinyl Chloride	4.6	0.20	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	21	0.20	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***106***	***75-127***				
Toluene-d8	***97***	***80-127***				
4-Bromofluorobenzene	***106***	***78-125***				

Date of Report: October 31, 2017
Samples Submitted: October 26, 2017
Laboratory Reference: 1710-360
Project: 397-044

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1027W2					
Vinyl Chloride	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Trichloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	10-27-17	10-27-17	
Surrogate:	***Percent Recovery***	***Control Limits***				
Dibromofluoromethane	***106***	***75-127***				
Toluene-d8	***97***	***80-127***				
4-Bromofluorobenzene	***104***	***78-125***				

Date of Report: October 31, 2017
Samples Submitted: October 26, 2017
Laboratory Reference: 1710-360
Project: 397-044

VOLATILES EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1027W3									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.10**	**9.26**	10.0	10.0	91	93	63-126	2	21	
Benzene	**11.0**	**11.1**	10.0	10.0	110	111	78-122	1	19	
Trichloroethene	**10.2**	**10.0**	10.0	10.0	102	100	63-120	2	20	
Toluene	**10.7**	**11.0**	10.0	10.0	107	110	79-124	3	19	
Chlorobenzene	**10.9**	**11.0**	10.0	10.0	109	110	78-120	1	19	
Surrogate:										
Dibromofluoromethane					***103***	***103***	***75-127***			
Toluene-d8					***95***	***96***	***80-127***			
4-Bromofluorobenzene					***105***	***108***	***78-125***			

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 Consulting
Project Number: 397-044
Project Name: 700 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: NT

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: 10-360

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	INF-102417	10/24/17	1458	W	3						X																
2	EFF-W-102417	10/24/17	1503	W	3						X																
3	EFF-E-102417	10/24/17	1508	W	3						X																

	Signature	Company	Date	Time
Relinquished		Farallon	10/26	0955
Received		ALPHA	10/26	0955
Relinquished		ALPHA	10/26	13:34
Received			10/26/17	1334
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* PCE and daughter products

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 29, 2017

Tad Cline
Farallon Consulting, LLC
1809 7th Ave., Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-044
Laboratory Reference No. 1712-208

Dear Tad:

Enclosed are the analytical results and associated quality control data for samples submitted on December 19, 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 29, 2017
Samples Submitted: December 19, 2017
Laboratory Reference: 1712-208
Project: 397-044

Case Narrative

Samples were collected on December 18, 2017 and received by the laboratory on December 19, 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 29, 2017
Samples Submitted: December 19, 2017
Laboratory Reference: 1712-208
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**INF-121817**					
Laboratory ID:	12-208-01					
Vinyl Chloride	26	0.40	EPA 8260C	12-27-17	12-27-17	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	12-27-17	12-27-17	
(cis) 1,2-Dichloroethene	66	0.40	EPA 8260C	12-27-17	12-27-17	
Trichloroethene	ND	0.40	EPA 8260C	12-27-17	12-27-17	
Tetrachloroethene	ND	0.40	EPA 8260C	12-27-17	12-27-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*75-127*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

Date of Report: December 29, 2017
Samples Submitted: December 19, 2017
Laboratory Reference: 1712-208
Project: 397-044

VOLATILES EPA 8260C

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FMW-131-121817**					
Laboratory ID:	12-208-02					
Vinyl Chloride	ND	0.20	EPA 8260C	12-27-17	12-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
(cis) 1,2-Dichloroethene	0.61	0.20	EPA 8260C	12-27-17	12-27-17	
Trichloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*75-127*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*97*	*78-125*				

Date of Report: December 29, 2017
Samples Submitted: December 19, 2017
Laboratory Reference: 1712-208
Project: 397-044

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1227W1					
Vinyl Chloride	ND	0.20	EPA 8260C	12-27-17	12-27-17	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
Trichloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
Tetrachloroethene	ND	0.20	EPA 8260C	12-27-17	12-27-17	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*75-127*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*97*	*78-125*				

Date of Report: December 29, 2017
Samples Submitted: December 19, 2017
Laboratory Reference: 1712-208
Project: 397-044

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1227W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.0**	**10.7**	10.0	10.0	100	107	63-126	7	21	
Benzene	**10.3**	**11.0**	10.0	10.0	103	110	78-122	7	19	
Trichloroethene	**10.0**	**11.1**	10.0	10.0	100	111	63-120	10	20	
Toluene	**10.6**	**11.6**	10.0	10.0	106	116	79-124	9	19	
Chlorobenzene	**10.7**	**11.8**	10.0	10.0	107	118	78-120	10	19	
Surrogate:										
Dibromofluoromethane					*99*	*98*	*75-127*			
Toluene-d8					*95*	*100*	*80-127*			
4-Bromofluorobenzene					*101*	*102*	*78-125*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

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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 _____.

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

X - Sample extract treated with a mercury cleanup procedure.

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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.

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

Chain of Custody

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: 397-044
Project Name: 700 Dexter HVOC Plume IA
Project Manager: Tad Cline
Sampled by: Kyle Korbines

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: 12-208

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	HOLD				% Moisture
1	INF-121817	12/18/17	1158	W	3						X																
2	FMW-131-121817	↓	1245	W	3																		X				
3	FMW-3D-121817	↓	1320	W	3																		X				

	Signature	Company	Date	Time
Relinquished	[signature]	Farallon	12/19/17	1:10 pm
Received	[signature]	Alpha	12/19	1:10 pm
Relinquished	[signature]	Alpha	12/19	2:15
Received		ORE	12/19/17	1415
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* PCE and Degredation products

Data Package: Standard ☐ Level III ☐ Level IV ☐

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