



March 09, 2022

Sunny Becker, Site Manager
Washington State Department of Ecology
Northwest Regional Office
3190 160th Ave SE
Bellevue, WA 98008-5452

RE: Everett Landfill – 2021 Groundwater Performance Monitoring Report

Dear Sunny:

Floyd | Snider has completed the Groundwater Performance Monitoring annual report for the Everett Landfill site. This report satisfies the groundwater reporting requirements outlined in Section 4.5.3 of the Compliance Monitoring and Contingency Plan.

The attached letter report presents data and results from the two Groundwater Monitoring events for 2021. As the report describes, sampling was performed in January and July of 2021.

If you have any comments or questions on the attached, please don't hesitate to contact me. Alternatively, you can contact Megan King at Floyd & Snider, Inc.

Sincerely,


A handwritten signature in blue ink, appearing to read 'Randy Loveless'.

Randy Loveless, P.E.
Landfill Site Manager

Enclosure

Public Works

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Everett, WA 98201

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Memorandum

To: Randy Loveless, P.E., City of Everett Public Works
From: Kate Snider, Sabine Datum, and Brett Beaulieu, Floyd|Snider
Date: March 4, 2022
Project No: COEv DEVEL 2014
Re: **2021 Annual Groundwater Monitoring Report – Everett Landfill/Tire Fire Site, Everett WA**

This memorandum presents the 2021 sampling and analytical results of groundwater monitoring at the Everett Landfill/Tire Fire Site (Site), located in Everett, Washington (Figure 1). Sampling was performed in accordance with the Site Cleanup Action Plan (CAP) and Compliance Monitoring and Contingency Plan (CMCP; Floyd|Snider 2001) and the Site Sampling and Analysis Plan (HWA 2015). Groundwater has been monitored at the Site since 2001. Historical groundwater data collected by HWA Geosciences, Inc. (HWA) prior to 2021 are appended to this report as Attachment 1 (HWA 2020).

BACKGROUND

The Site is approximately 70 acres and located east of Interstate 5 and the western shore of the Snohomish River between 36th Street and 41st Street. Nine groundwater monitoring wells screened within the deep aquifer (MW-11R, MW-21R, MW-29R, MW-30, MW-31, MW-36, MW-37, MW-38, and MW-39R) are currently selected for compliance monitoring.

Per the CMCP, Evaluation Monitoring was performed for 3 years to supplement existing information regarding baseline conditions at the Site. During the current phase of performance monitoring (referred to as compliance monitoring in this report) seasonal and long-term changes in groundwater quality are being monitored. Compliance monitoring will be performed for at least 10 years. In addition, compliance monitoring will be reset or reinstated after the first significant pile installation activity and after additional pile installation in a zone identified for pile restrictions.

Groundwater in the shallow (leachate) aquifer is collected in the leachate collection system and conveyed off-site for treatment. A small section of the shallow aquifer is present east of the leachate collection system (and west of the East Ditch Figure 2). There is residual waste in a narrow strip of land between the leachate collection trench and the East Ditch; however, as documented in the 2001 CAP (Floyd|Snider 2001), groundwater from this narrow strip of land is

collected in the leachate collection system conveyed off-site, preventing groundwater discharge to surface water. This strip of land is the point of compliance for the shallow aquifer. Demonstration of hydraulic control is through monitoring groundwater levels at and near the Everett Landfill leachate collection system in the shallow aquifer.

The shallow aquifer point of compliance is located on the strip of land between the East Ditch and the leachate collection trench. Shallow aquifer compliance criteria are based on hydraulic control through operation of the leachate collection system. Hydraulic control is demonstrated through monitoring of water levels to show that hydraulic gradients are toward the leachate collection system, which would indicate that no shallow aquifer discharge to surface water is occurring. Although no water quality monitoring of the shallow aquifer is required while operating the leachate collection trench, future monitoring may occur if it needs to be demonstrated that the shallow aquifer has achieved the compliance criteria.

Because the shallow aquifer is discharging to the leachate collection system, groundwater quality compliance is only monitored in the deeper aquifer, per the requirements of the CMCP. Groundwater in the deep aquifer discharges to the Snohomish River. The deep aquifer is a potential future source of drinking water. The points of compliance for the deep aquifer are groundwater monitoring wells MW-36, MW-37, MW-38, and MW-39R, the groundwater monitoring wells closest to the Snohomish River.

Contaminants of concerns (COCs) and their cleanup levels (CULs) were initially presented in the CMCP. After completion of Evaluation Monitoring, the COCs were refined and limited to the following for compliance monitoring: metals (arsenic, iron, manganese, nickel, and zinc), chloride, and bis(2-ethylhexyl)phthalate (HWA 2004).

For additional background details refer to the CMCP (Floyd|Snider 2001) and the 2004 HWA Evaluation Monitoring Report (HWA 2004).

GROUNDWATER MONITORING EVENTS

Floyd|Snider completed two groundwater monitoring events in 2021. The sampling locations are depicted on Figure 2. Groundwater monitoring was performed using low-flow purging and sampling techniques, per the Floyd|Snider Standard Guideline Low-Flow Groundwater Sampling (Attachment 1).

January 2021 Sampling Event

On January 20 and 21, 2021, groundwater samples were collected from the following eight wells:

- Deep aquifer monitoring wells MW-11R, MW-21R, MW30, and MW-31
- Deep aquifer point of compliance wells MW-36, MW-37, MW-38, and MW-39R

A field duplicate was collected from well MW-37. Due to an error in Global Positioning System (GPS) coordinates, well MW-29R could not be located and was not sampled.

Water level measurements from the top of casing were collected from the sampled wells immediately prior to sampling at each well during the 2 days of sampling. Water level measurements are summarized in Table 1. During low-flow purging of the wells, field parameters (pH, temperature, dissolved oxygen, turbidity, and specific conductance) were recorded every 3 to 5 minutes for up to one hour or until parameters stabilized prior to sampling. The recorded field parameters are reported in Table 2. Low-flow pumping of the wells was maintained throughout the sampling process. After completion of sampling, groundwater samples were transported to the analytical laboratories and analyzed for the site-specific contaminants of interest (COIs; see Laboratory Analysis section below).

July 2021 Sampling Event

On July 7 and 8, 2021, groundwater samples were collected from the following wells:

- Deep aquifer monitoring wells MW-11R, MW-21R, MW-29R, MW-30, and MW-31
- Deep aquifer point of compliance wells MW-36, MW-37, MW-38, and MW-39R

A field duplicate sample was collected from MW-39R. One field blank quality control sample was also collected.

Depth to water measurements were collected from all sampled wells immediately prior to sampling at each well. Water level measurements were also collected from wells MW-22,¹ MW-24, MW-25, MW-26, and MW-46. Wells MW-33 and MW-34, which are no longer sampled, could not be located. Water level measurements are summarized in Table 1. During low-flow purging of the wells, field parameters (pH, temperature, dissolved oxygen, turbidity, and specific conductance) were recorded every 3 to 5 minutes for up to one hour or until parameters stabilized prior to sampling. Low-flow pumping of the wells was maintained throughout the sampling process. The recorded field parameters are reported in Table 2. After completion of sampling, groundwater samples were transported to the analytical laboratories and analyzed for the site-specific COIs (see Laboratory Analysis section below).

During the July 2021 event, Floyd|Snider also replaced the water pressure transducer in MW-46 with a new transducer Model Solinst 3001 Levellogger 5 and a barometric logger Model Solinst Barologger 5. The pressure transducer measures depth to water and temperature continuously while the barologger measures barometric pressure to correct for barometric pressure effects on water level data. Transducer data collected since the transducer change will be downloaded during the next sampling event in early 2022.

¹ MW-22, MW-24, MW-25, MW-26, and MW-46 are screened in the shallow aquifer and not sampled.

LABORATORY ANALYSIS

Groundwater samples collected in January and July 2021 were submitted to the City of Everett Environmental Laboratory for the following analyses:

- Dissolved metals (arsenic, iron, manganese, nickel, and zinc) by EPA Method 200.8
- Dissolved chloride by Standard Method SM4500-CL-E

Groundwater samples collected in January 2021 were also submitted to ALS Environmental (ALS) in Everett, Washington, and OnSite Environmental (OnSite) in Redmond, Washington. Groundwater samples collected in July 2021 were submitted to OnSite only. Samples submitted to ALS and/or OnSite were analyzed for the following:

- Bis(2-ethylhexyl)phthalate (BEHP) by EPA method 8270E

ANALYTICAL RESULTS

Table 2 summarizes the groundwater analytical results from the January and July 2021 sampling events. The laboratory reports are included in Attachment 2. Floyd|Snider performed data validation all analytical data with a USEPA Level 2B Data Quality Review (Summary Validation). The analytical data were validated in accordance with the USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA 2020a) and/or USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA 2020b). No qualifiers were added to the analytical results based on the data quality review. Data were determined to be of acceptable quality for use as reported by the laboratory. A data validation summary is included in Attachment 3. Historical groundwater analytical results (excerpts from previous HWA annual reports) are included as Attachment 4.

Arsenic

Arsenic concentrations were detected in wells MW-21R, MW-30, MW-31, and MW-36. Concentrations in MW-21R were the highest with 14 micrograms per liter ($\mu\text{g/L}$) in January and 25 $\mu\text{g/L}$ in July. The site-specific CUL for arsenic is 25 $\mu\text{g/L}$. Arsenic concentrations in MW-21R have exceeded the CUL previously (in July 2009), and have been fluctuating between non-detect (below 1 $\mu\text{g/L}$) and 24.6 $\mu\text{g/L}$ since 2010. Arsenic concentrations in MW-21R over time are shown on the graph depicted in Figure 3.

Iron

Iron was detected in all wells during both sampling events. Concentrations detected ranged between 3,100 $\mu\text{g/L}$ in well MW-38 and 44,000 $\mu\text{g/L}$ in well MW-31. Both the January and July 2021 iron concentrations in MW-31 exceeded the iron CUL of 23,687 $\mu\text{g/L}$.

Iron concentrations in well MW-31 have exceeded the CUL since sampling began in 2001. Concentrations fluctuated from 2001 to 2013 between approximately 30,000 and 45,000 $\mu\text{g/L}$

and then increased sharply to over 70,000 µg/L between 2014 and 2015, as shown on the graph in Figure 4. There has been an overall downward trend since 2015 with seasonal fluctuations. Seasonally, lower concentrations are observed in the winter than in the summer sampling events.

Manganese

Manganese was detected in all wells during both sampling events but none of the concentrations exceeded the CUL of 4,040 µg/L. Concentrations ranged between 250 µg/L in MW-31 (measured in both January and July) and 1,700 µg/L in MW-37 (measured in January and in the duplicate sample in July).

Nickel

Nickel concentrations were detected in MW-31 and MW-36. Concentrations ranged between 0.80 µg/L and 3.3 µg/L, which are below 10 µg/L—the CUL for nickel. The detected concentrations were flagged by the laboratory as estimates.

Zinc

Zinc was not detected above the laboratory reporting limit in any of the samples collected in January or July.

Chloride

Chloride concentrations were detected in all wells sampled in January and July. Concentrations in MW-37 were detected at a concentration of 970 µg/L in January and at 1,200 µg/L in July. These concentrations exceed the CUL of 230 µg/L. Chloride concentrations in MW-37 have previously exceeded the CUL between 2005 and 2006 and since 2016. Sampling had been discontinued in this well between 2006 and 2015 due to the presumed influence of saline water from the Snohomish River into groundwater. When sampling resumed in 2015, concentrations increased sharply between 2015 and 2017, decreased between 2017 and the spring of 2020, but have since increased again. Seasonally, lower concentrations are observed in winter compared to collection events in the summer. Chloride concentrations in MW-37 over time are shown on the graph depicted in Figure 5.

BEHP

BEHP was not detected above the laboratory reporting limit in any of the groundwater samples collected in January or July 2021.

GROUNDWATER GRADIENT

Groundwater gradients in the deep aquifer have been monitored since 2001, per the requirements of the CMCP. Easterly flow toward the Snohomish River has been established and

documented during the past monitoring years, with the exception of the area between MW-31 and MW-37, as discussed below. Based on groundwater levels measured in 2021 and resulting elevations, groundwater in the deep aquifer flows to the east toward the Snohomish River, with a gradient of approximately 0.02 feet per foot (ft/ft). Groundwater elevations in January and July 2021 are shown on Figures 6 and 7.

Reverse (westerly) groundwater flow between MW-31 and MW-37 was observed in both January and July 2021 with a gradient of approximately 0.06 ft/ft. These gradients may not be permanent and are also strongly affected by tidal fluctuations in nearshore groundwater elevations from variation in the Snohomish River stage elevation. As shown in Table 1, seasonal groundwater elevations greatly fluctuated in the wells closest to the river. For example, groundwater levels in MW-37 in January 2021 were more than 9 feet higher than in July 2021. Significant differences were also measured in MW-36 with over 6 feet, and in MW-31 with over 4 feet difference. Tidal influences from the Snohomish River are partially responsible for these variations. Based on the United States Geological Survey (USGS) river gage readings for the Snohomish River at Snohomish,² Washington, in January 2021, daily tidal fluctuations accounted for up to 6 feet in river water level differences. In July 2021, daily tidal differences resulted in up to 11.5 feet of changes in river levels. Seasonally, lowest river levels fluctuated by about 3 feet in 2021 and high river levels fluctuated by approximately 10 feet in 2021. As a result, in addition to seasonal variations, the time of day at which water levels were measured in the wells explains the high variability in the water levels in the near shore wells.

Per the CMCP, hydraulic control of the shallow (leachate) aquifer is demonstrated through monitoring of water levels to show that hydraulic gradients are toward the leachate collection system. For this reason, groundwater levels at and near the Everett Landfill leachate collection system are monitored to evaluate hydraulic control of the shallow aquifer with review of the transducer data from well MW-46 (screened in the shallow aquifer) and level sensor data from wet well LS21. Water level and barometer readings collected hourly between January 1, 2021, and July 13, 2021, are presented on Figure 8. Data show that LS21 water elevations ranged between -2.2 and 1.6 feet. Readings greater and less than this range occurred during wet well maintenance activities or transducer connection interruptions. Figure 9 depicts LS21 and MW-46 water elevations during the month of January 2021 to show monthly fluctuations. Groundwater elevations in MW-46 during this time frame ranged from 7.92 to 11.61 feet. Based on the elevation data, groundwater elevations inside the wet well were 6.32 to 10.01 feet lower than groundwater elevations in MW-46. Given that the wet well groundwater elevations were below the shallow aquifer groundwater elevations, no discharge from the shallow aquifer to the Snohomish River occurred between January and July 2021, as expected. The shallow aquifer continues to be hydraulically controlled.

² According to the USGS, the Snohomish River gage datum is 9.86 feet below National Geodetic Vertical Datum of 1929.

SUMMARY

The 2021 groundwater analytical results are similar to results in previous monitoring years. Exceedances of the iron CUL were detected in MW-31 and exceedances of the chloride CUL were detected in MW-37. MW-37 is a point of compliance well, in which sampling was discontinued between 2006 and 2015 due to the presumed influence of saline water from the Snohomish River into groundwater. Chloride concentrations have been fluctuating in MW-37 since 2016 between 251 µg/L and 1,790 µg/L, exceeding the CUL. We continue to hold the opinion that this is likely due to influence of saline water from the Snohomish River. Arsenic was detected at the CUL in well MW-21R in July 2021. This well is located several hundred feet from the Snohomish River. MW-11R, the well down-gradient from MW-21R, does not exhibit arsenic concentrations greater than the laboratory reporting limit. Therefore, the arsenic concentration in MW-21R is not a concern at this time. No change in monitoring or other action is proposed as a result of these detections.

Floyd|Snider will continue to sample the nine wells selected for monitoring semiannually. Per the CMCP, the 10-year performance monitoring period reset in October 2020 after the first pile installation that penetrated the aquitard occurred.

REFERENCES

Floyd|Snider. 2001. Cleanup Action Plan and Compliance Monitoring and Contingency Plan.

HWA Geosciences, Inc. (HWA). 2020. 2020 Groundwater Performance Monitoring Report. Everett Landfill/Tire Fire Site. Everett, Washington. 30 December.

_____. 2015. Everett Landfill/Tire Fire Site 2015 Ground Water Sampling and Analysis Plan. Everett, Washington. 22 May.

_____. 2004. Evaluation Monitoring Report. July 2001–April 2004. Everett Landfill. 14 December.

U.S. Environmental Protection Agency (USEPA). 2020a. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Prepared by the Office of Superfund Remediation and Technology Innovation. EPA-542-R-20-006/OLEM 9240.1-66. November.

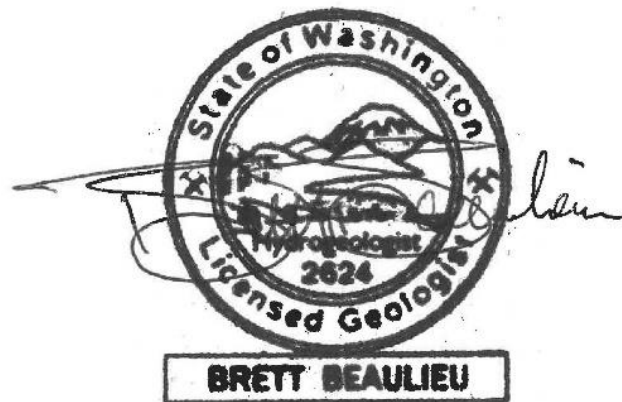
_____. 2020b. *National Functional Guidelines for Organic Superfund Methods Data Review*. Prepared by the Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-005/OLEM 9240.0-51. November.

LIST OF ATTACHMENTS

Table 1 2021 Groundwater Elevations

Table 2 Summary of 2021 Groundwater Analytical Results

- Figure 1 Site Vicinity Map
- Figure 2 Groundwater Monitoring Well Locations
- Figure 3 Arsenic Concentrations in MW-21R
- Figure 4 Iron Concentrations in MW-31
- Figure 5 Chloride Concentrations in MW-37
- Figure 6 Groundwater Elevations January 2021
- Figure 7 Groundwater Elevations July 2021
- Figure 8 LS21 vs MW-46 Groundwater Elevations January through July 2021
- Figure 9 LS21 vs MW-46 Groundwater Levels and Elevations January 2021
- Attachment 1 Floyd|Snider Standard Guidelines
- Attachment 2 Analytical Laboratory Reports
- Attachment 3 Data Validation Summary
- Attachment 4 Historical Groundwater Monitoring Analytical Results and Groundwater Elevations



Name: Brett Beaulieu
Date: 3/4/2022

Tables

Table 1
2021 Groundwater Elevations

Well ID	Depth of well screen (ft bgs) ⁽¹⁾	TOC Elevation (ft MSL)	TOC Elevation (ft NAVD 88)	January 2021 Sampling Event					July 2021 Sampling Event				
				Sample Date	Date and Time of water level measurement	Snohomish River Level Gage ⁽²⁾ at time of water level measurement	Depth to water (ft)	Groundwater elevation (ft NAVD 88)	Sample Date	Time of water level measurement	Snohomish River Level Gage ⁽²⁾ at time of water level measurement	Depth to water (ft)	Groundwater elevation (ft NAVD 88)
MW-11R	30-40	18.761	14.311	01/20/21	15:48	12.89	13.30	1.01	07/08/21	15:04	9.34	15.31	-1.00
MW-21R	30-40	43.81	39.36	01/21/21	9:00	14.64	11.93	27.43	07/08/21	8:47	10.29	12.55	26.81
MW-24*	unknown	14.012	9.562	--	--	--	--	NA	07/08/21	13:24	6.79	3.68	5.88
MW-25*	unknown	12.515	8.065	--	--	--	--	NA	07/08/21	12:57	6.93	3.97	4.10
MW-26*	unknown	12.183	7.733	--	--	--	--	NA	07/08/21	11:26	7.69	2.71	5.02
MW-29R	39-49	12.452	8.002	--	--	--	--	NA	07/08/21	10:53	8.07	6.82	1.18
MW-30	28-38	12.773	8.323	01/21/21	12:05	16.17	3.42	4.90	07/07/21	16:54	14.54	4.78	3.54
MW-31	18-28	14.031	9.581	01/21/21	16:11	12.69	9.08	0.50	07/08/21	13:33	6.81	13.75	-4.17
MW-36	21.5-31.5	15.37	10.92	01/20/21	14:10	14.60	4.41	6.51	07/07/21	10:28	8.06	10.57	0.35
MW-37	27.5-37.5	18.73	14.28	01/20/21	12:10	16.28	5.24	9.04	07/07/21	12:13	7.16	14.59	-0.31
MW-38	32-40.5	18.07	13.62	01/21/21	12:45	15.78	7.18	6.44	07/07/21	14:28	9.75	10.28	3.34
MW-39R	51-61	15.919	11.469	01/21/21	11:43	16.22	7.10	4.37	07/08/21	11:20	7.69	10.90	0.57
MW-46*	7-22	26.619	22.169	--	--	--	--	NA	07/07/21	16:28	13.90	14.25	7.92

Notes:

Wells not selected for performance monitoring.

-- Not measured.

* Screened in shallow aquifer.

1 Information obtained from historical boring logs.

2 Snohomish River Level Gage at Snohomish WA located at approximately 7 miles upstream from the site.

Abbreviations:

bgs Below ground surface

ft Feet

MSL Mean Sea Level

NA Not available

NAVD 88 North American Vertical Datum of 1988

TOC Top of casing

Table 2
Summary of 2021 Groundwater Analytical Results

Location Name					MW-11R		MW-21R		MW-29R	MW-30		MW-31	
Sample Name					MW-11R-012021	MW-11R-070821	MW-21R-012121	MW-21R-070821	MW-29R-070821	MW-30-012121	MW-30-070721	MW-31-012121	MW-31-070821
Sample Date					1/20/2021	7/8/2021	1/21/2021	7/8/2021	7/8/2021	1/21/2021	7/7/2021	1/21/2021	7/8/2021
Analyte	CAS No.	CUL	Unit	Analysis Method									
Metals													
Arsenic	7440-38-2	25	µg/L	EPA 200.8	1.0 U	0.60 U	14	25	0.60 U	7.6	7.2	2.0 J	1.8 J
Iron	7439-89-6	23,687	µg/L	EPA 200.8	3,400	3,900	13,000	13,000	7,100	12,000	12,000	44,000	43,000
Manganese	7439-96-5	4,040	µg/L	EPA 200.8	720	790	1,800	2,200	440	530	550	1,200	1,200
Nickel	7440-02-0	10	µg/L	EPA 200.8	1.0 U	0.60 U	1.0 U	0.60 U	0.60 U	1.0 U	0.60 U	3.3 J	3.1
Zinc	7440-66-6	76.6	µg/L	EPA 200.8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Conventionals													
Chloride	16887-00-6	230	mg/L	SM 4500-CL	13	12	12	8.1	12	14	16	150	150
SVOCs													
Bis(2-ethylhexyl)phthalate	117-81-7	10	µg/L	EPA 8270E	0.99 U	5.0 U	0.98 U	4.9 U	4.9 U	0.99 U	4.9 U	0.97 U	4.8 U
Bis(2-ethylhexyl)phthalate ⁽¹⁾	117-81-7	10	µg/L	EPA 8270E			2.0 U					2.0 U	
Field Parameters													
Dissolved Oxygen	--	--	mg/L	YSI METER	0.97	0.80	1.18	0.81	0.58	0.46	0.68	0.39	0.54
ORP	--	--	mV	YSI METER	-111	37.9	-92.5	6.0	51.9	211	4.5	238	67
pH	pH	--	pH	YSI METER	7.32	7.11	6.85	6.9	6.47	6.65	6.75	6.15	6.17
Specific Conductance	--	--	µS/cm	YSI METER	623	853	401	595	907	458	551	945	1,152
Temperature	--	--	°C	YSI METER	13.8	13.8	12.1	13.6	14	12.1	14.8	12.9	14.9
Turbidity	--	--	ntu	TURBM	10.82	16.7	6.09	10.69	10.39	3.13	0.96	3.39	6.58

Notes:

BOLD Result exceeds the CUL.

¹ Sample was also sent to ALS Environmental Lab for comparison analysis.

Abbreviations:

- °C Degree Celsius
- CAS Chemical Abstracts Service
- CUL Cleanup Level
- µg/L Micrograms per liter
- µS/cm Microsiemens per centimeter
- mg/L Milligrams per liter
- mV Millivolts
- ntu Nephelometric turbidity unit
- ORP Oxygen-reduction potential
- TURBM Lamotte Turbidity Meter
- YSI METER YSI Water Quality Meter

Qualifiers:

- J Analyte is detected and the concentration is estimated.
- U Analyte is not detected at the associated reporting limit.

Table 2
Summary of 2021 Groundwater Analytical Results

Location Name					MW-36		MW-37			MW-38		MW-39R			Field Blank
Sample Name					MW-36-012021	MW-36-070721	MW-37-012021	MW-99-012021	MW-37-070721	MW-38-012121	MW-38-070721	MW-39R-012121	MW-39R-070821	Dup-1-070821	FB-1-070821
Sample Date					1/20/2021	7/7/2021	1/20/2021	1/20/2021	7/7/2021	1/21/2021	7/7/2021	1/21/2021	7/8/2021	7/8/2021	7/8/2021
Analyte	CAS No.	CUL	Unit	Analysis Method											
Metals															
Arsenic	7440-38-2	25	µg/L	EPA 200.8	4.9	4.2	1.0 U	1.0 U	0.60 U	1.0 U	0.60 U	1.0 U	0.60 U	0.60 U	0.60 U
Iron	7439-89-6	23,687	µg/L	EPA 200.8	13,000	16,000	15,000	15,000	20,000	3,100	3,200	4,800	5,100	5,200	20 U
Manganese	7439-96-5	4,040	µg/L	EPA 200.8	1,100	560	1,600	1,700	1,700	270	280	250	250	250	0.60 U
Nickel	7440-02-0	10	µg/L	EPA 200.8	2.1 J	0.80 J	1.0 U	1.0 U	0.60 U	1.0 U	0.60 U	1.0 U	0.60 U	0.60 U	0.60 U
Zinc	7440-66-6	76.6	µg/L	EPA 200.8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Conventionals															
Chloride	16887-00-6	230	mg/L	SM 4500-CL	44	82	970	1,000	1,200	12	14	7.2	7.1	7.1	0.30 U
SVOCS															
Bis(2-ethylhexyl)phthalate	117-81-7	10	µg/L	EPA 8270E	0.98 U	5.0 U	1.0 U	0.99 U	4.9 U	0.96 U	4.8 U	0.99 U	4.8 U	4.8 U	4.8 U
Bis(2-ethylhexyl)phthalate ⁽¹⁾	117-81-7	10	µg/L	EPA 8270E	2.0 U										
Conventionals															
Dissolved Oxygen	--	--	mg/L	YSI METER	0.98	0.54	1.19	1.19	0.59	0.45	0.60	1.14	1.53		
ORP	--	--	mV	YSI METER	-119	-6.2	-69.5	-69.5	3.5	233	57.2	-83.6	-113		
pH	pH	--	pH	YSI METER	6.89	6.61	6.56	6.56	6.49	6.73	6.71	6.97	6.93		
Specific Conductance	--	--	µS/cm	YSI METER	548	851	2,235	2,235	3,975	298	386	213	289		
Temperature	--	--	°C	YSI METER	11.3	12.2	11	11	12.3	11	11.9	11.8	13.3		
Turbidity	--	--	ntu	TURBM	6.41	5.36	34	34	2.93	0.45	0.67	3.97	1.77		

Notes:

BOLD Result exceeds the CUL.

¹ Sample was also sent to ALS Environmental Lab for comparison analysis.

Abbreviations:

- °C Degree Celsius
- CAS Chemical Abstracts Service
- CUL Cleanup Level
- µg/L Micrograms per liter
- µS/cm Microsiemens per centimeter
- mg/L Milligrams per liter
- mV Millivolts
- ntu Nephelometric turbidity unit
- ORP Oxygen-reduction potential
- TURBM Lamotte Turbidity Meter
- YSI METER YSI Water Quality Meter

Qualifiers:

- J Analyte is detected and the concentration is estimated.
- U Analyte is not detected at the associated reporting limit.

Figures



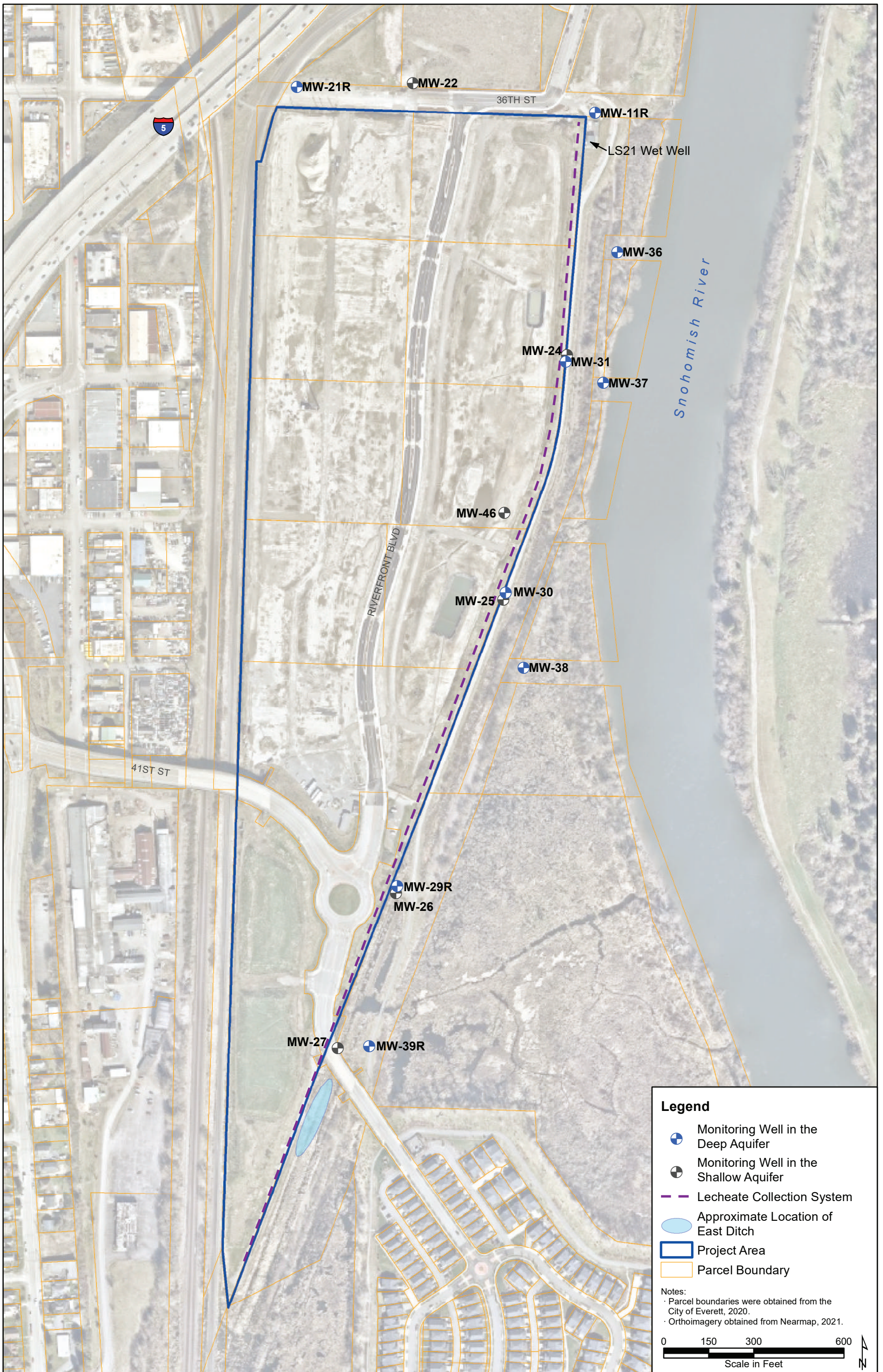
Note:
 · Basemap tiles by Stamen Design, under CC BY 3.0.
 · Data by OpenStreetMap, under ODbL.

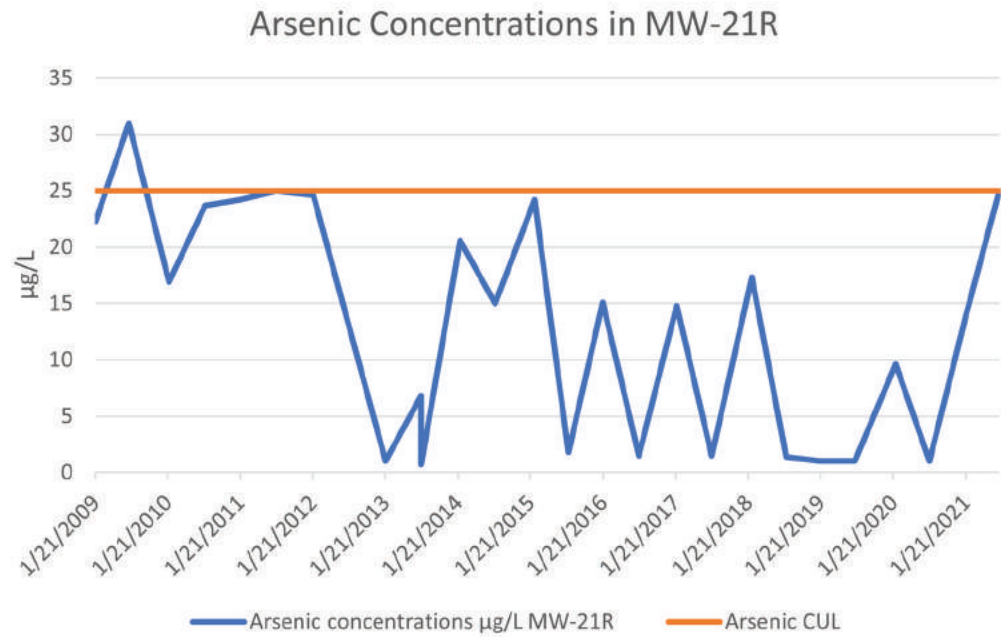


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**2021 Annual Groundwater
 Monitoring Report
 Everett Landfill/Tire Fire Site
 Everett, WA**

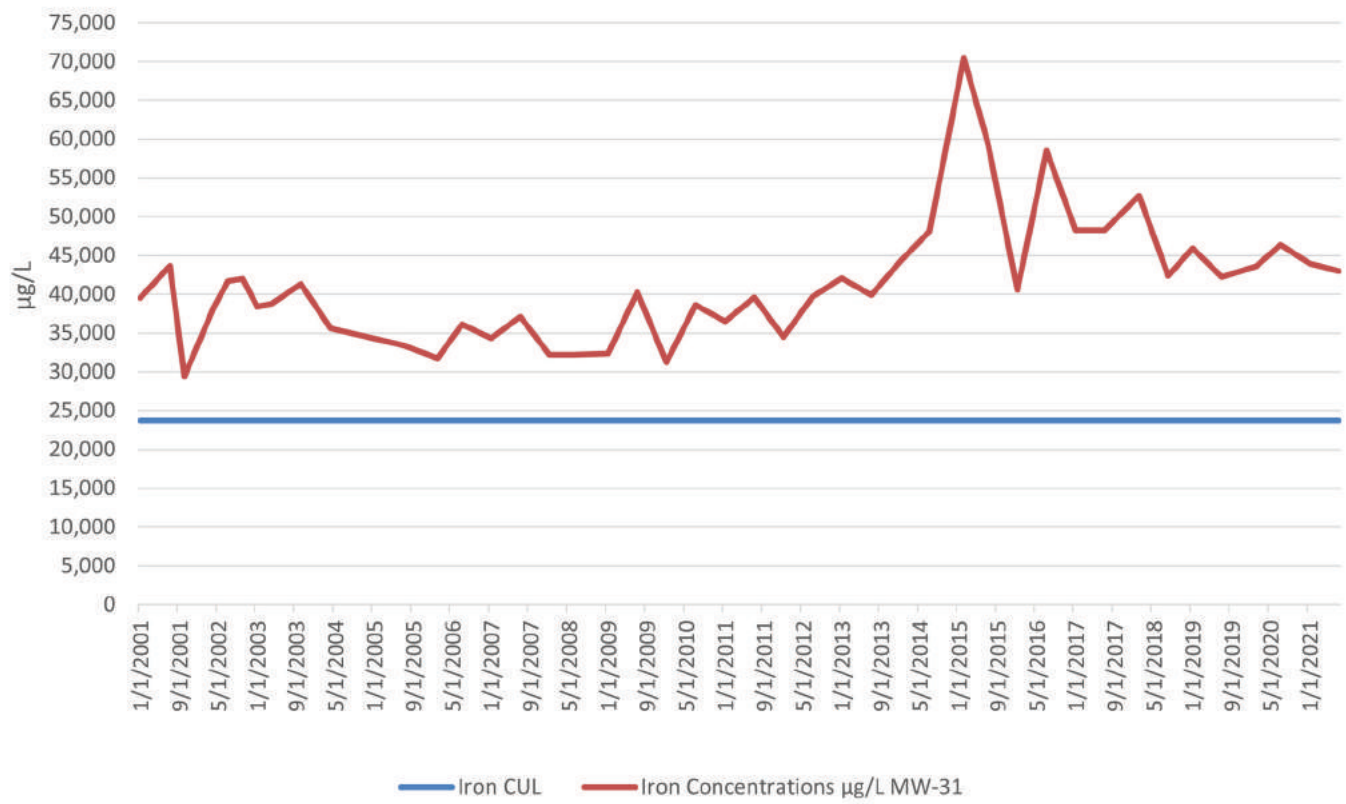
Figure 1
 Site Vicinity Map





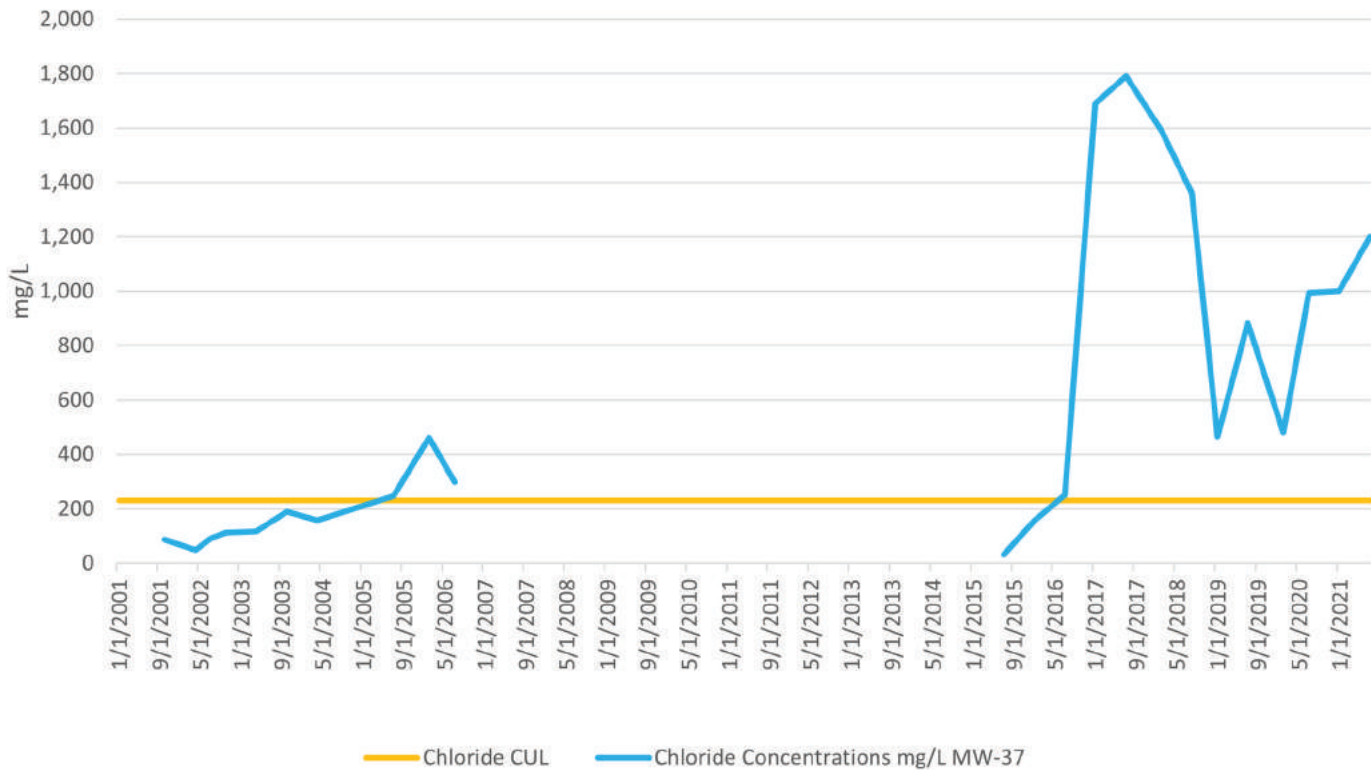
Abbreviations: CUL = Cleanup level, µg/L = Micrograms per liter

Iron Concentrations in MW-31

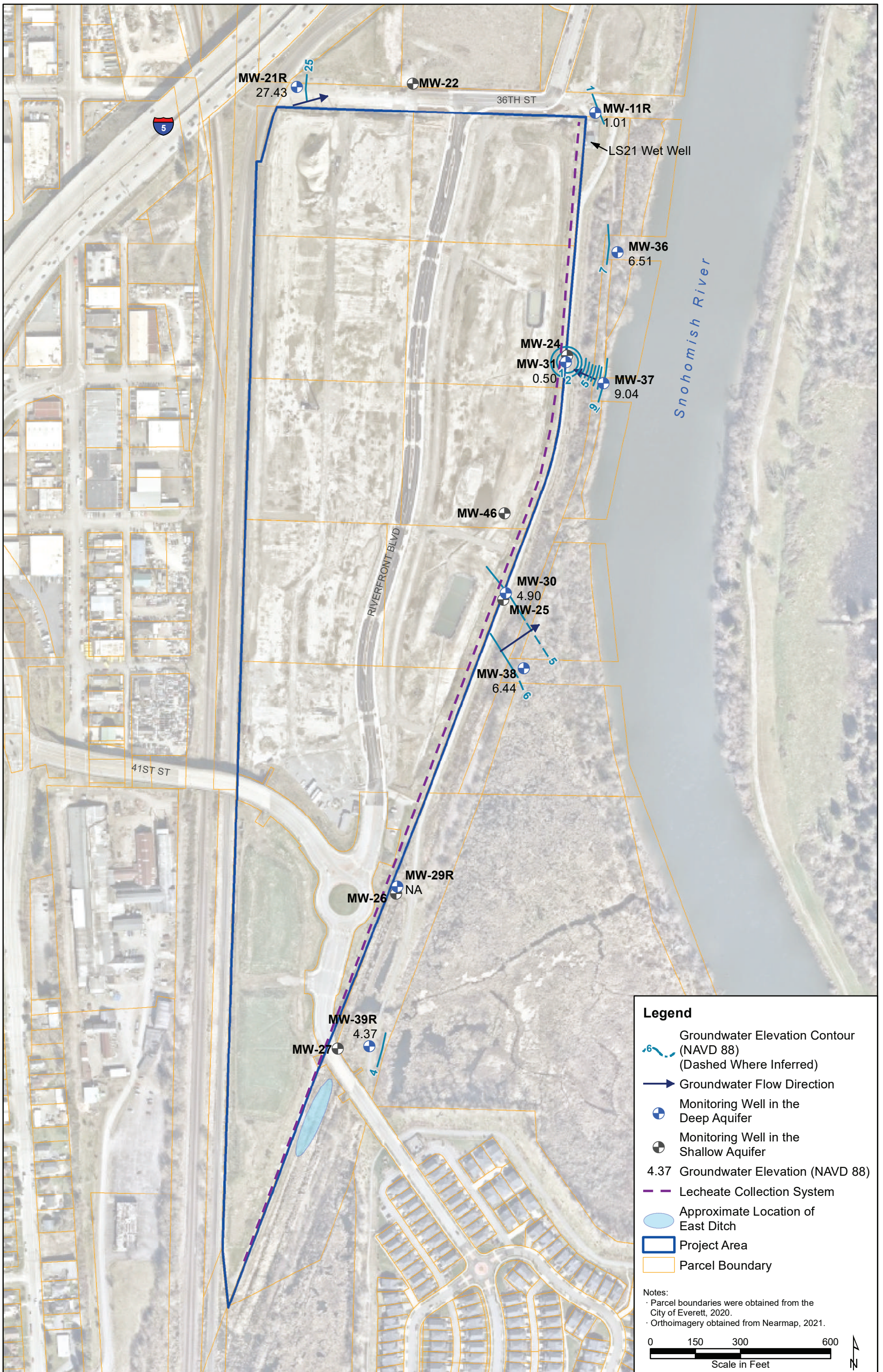


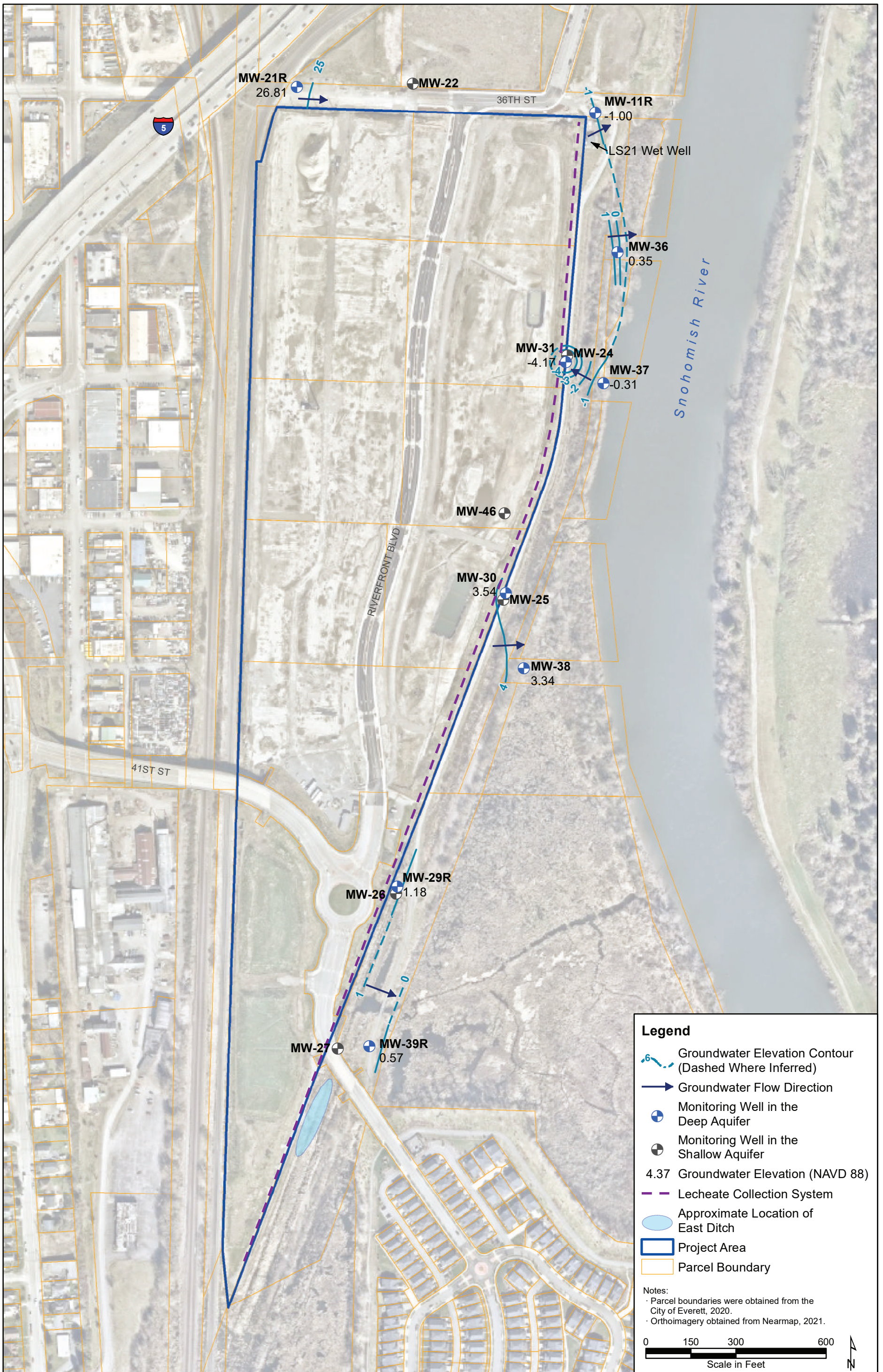
Abbreviations: CUL = Cleanup level, µg/L = Micrograms per liter

Chloride Concentrations in MW-37

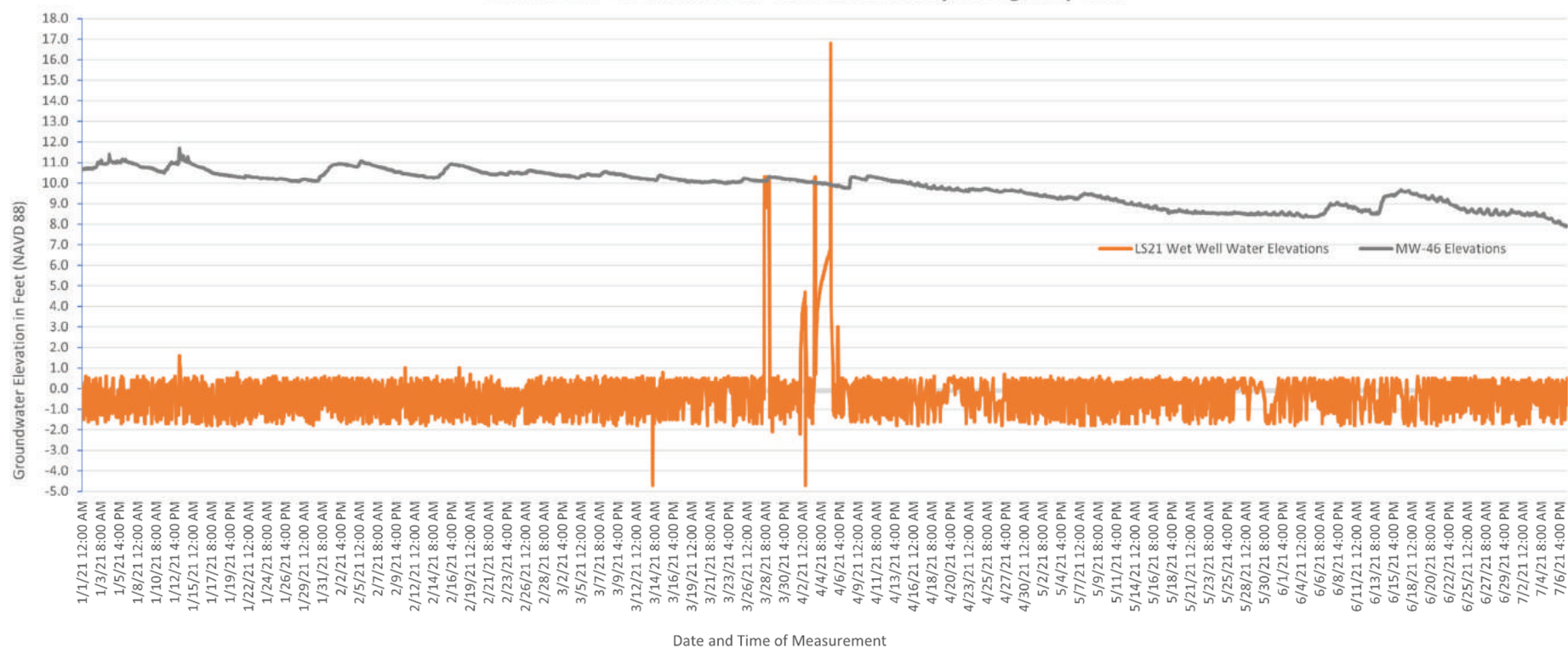


Abbreviations: CUL = Cleanup level, mg/L = Milligrams per liter



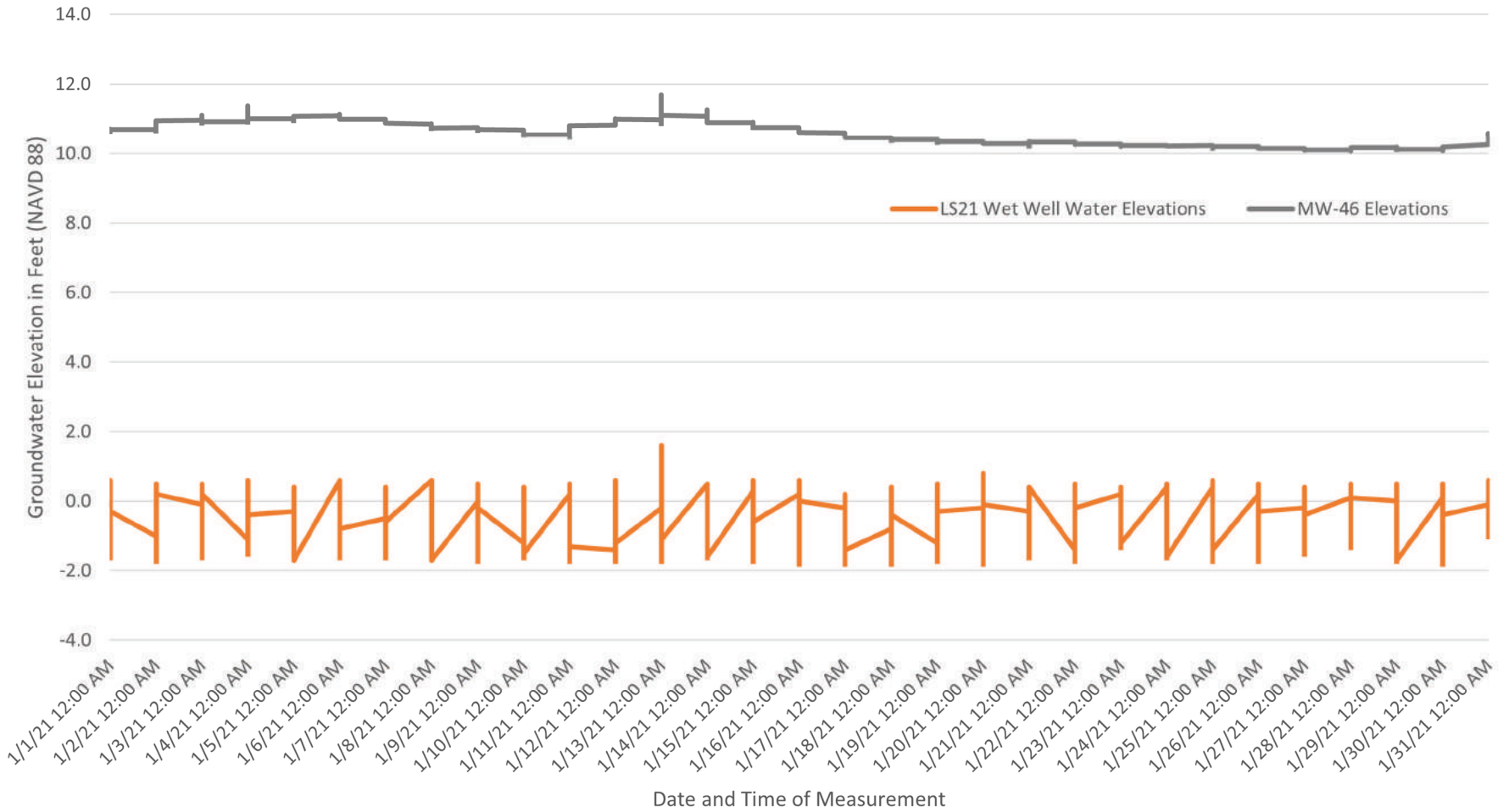


LS21 vs MW-46 Groundwater Elevations January through July 2021



Abbreviation: NAVD 88 = North American Vertical Datum of 1988

LS21 vs MW-46 Groundwater Levels and Elevations January 2021



Abbreviation: NAVD 88 = North American Vertical Datum of 1988

Attachment 1
Floyd | Snider Standard Guidelines

F|S STANDARD GUIDELINE

Low-Flow Groundwater Sample Collection

DATE/LAST UPDATE: August 2015

These procedures should be considered standard guidelines and are intended to provide useful guidance when in the field, but are not intended to be step-by-step procedures, as some steps may not be applicable to all projects.

All field staff should be sufficiently trained in the standard guidelines for the sampling method they intend to use and should review and understand these procedures prior to going into the field. It is the responsibility of the field staff to review the standard guidelines with the field manager or project manager and identify any deviations from these guidelines prior to field work. When possible, the project-specific Sampling and Analysis Plan should contain any expected deviations and should be referenced in conjunction with these standard guidelines.

1.0 Scope and Purpose

This standard guideline provides details necessary for collecting representative groundwater samples from monitoring wells using low-flow methods. These guidelines are designed to meet or exceed guidelines set forth by the Washington State Department of Ecology (Ecology). Low-Flow sampling provides a method to minimize the volume of water that is purged and disposed from a monitoring well, and minimizes the impact that purging has on groundwater chemistry during sample collection.

2.0 Equipment and Supplies

Groundwater Sampling Equipment and Tools:

- For wells with head less than 25 feet:
 - Peristaltic pump with fully-charged internal battery or standalone battery and appropriate connectors

- For wells with head greater than 25 feet:
 - Bladder pump and controller, as well as an air cylinder, or air compressor (with extension cord if near an electrical outlet; with battery and appropriate connectors or generator if not near an outlet)
- **OR**
- Low-flow submersible pump and controller (with extension cord if near an electrical outlet; with battery and appropriate connectors or generator if not near an outlet)
- Multi-parameter water quality meter
- Water level meter
- Poly tubing
- Silicone tubing
- Filters (if field filtering)
- Tools for opening wells (1/2-inch, 9/16-inch, and 5/8-inch sockets, ratchet, screwdriver)
- Well keys
- Tube cutters, razor blade, or scissors
- 5-gallon buckets and clamp
- Paper towels
- Bailer or pump to drain well box if full of stormwater
- Hammer
- Alconox (or similar decontamination solution), deionized water, spray bottles
- Tape measure
- Trash bags

Lab Equipment:

- Sample jars/bottles
- Coolers
- Chain-of-Custody Forms
- Labels
- Ice
- Ziploc bags

Paperwork:

- Field notebook with site maps
- Table of well construction details and/or well logs, if available
- Sampling forms
- Purge water plan
- Rite-in-the-Rain pens, paper, and permanent markers
- Site-Specific Health and Safety Plan (HASP)
- Sampling and Analysis Plan (SAP) and/or Quality Assurance Project Plan (QAPP) (including tables of analytes and bottle types)

Personal Protective Equipment (PPE):

- Boots/waders
- Safety vest
- Safety glasses
- Rain gear
- Nitrile gloves
- Work gloves

3.0 Standard Procedures

Low-Flow groundwater sampling consists of purging groundwater within the well casing at a rate equal to or less than the flow rate of representative groundwater from the surrounding aquifer into the well screen. The flow rate will depend on the hydraulic conductivity of the aquifer and the drawdown, with the goal of minimizing drawdown within the monitoring well. Field parameters are monitored during purging and groundwater samples are collected after field parameters have stabilized. Deviations from these procedures should be approved by the Project Manager and fully documented.

3.1 CALIBRATION OF WATER QUALITY METERS

All multi-parameter water quality meters to be used will be calibrated prior to each sampling event. Calibration procedures are outlined in each instrument's specific user manual.

3.2 MONITORING, MAINTENANCE, AND SECURITY

Prior to sampling, depth to water and total depth measurements will be collected and recorded for accessible monitoring wells onsite (or an appropriate subset for larger sites). Check for an existing measuring point (notch or visible mark on top of casing). If a measuring point is not observed, a measuring point should be established on the north side of the casing. The conditions

of the well box and bolts will also be observed and deficiencies will be recorded on the sampling forms or logbook (i.e., missing or stripped bolt). The following should also be recorded:

- Condition of the well box, lid, bolts, locks, and gripper cap, if deficiencies
- Condition of gasket if deficient and if water is present in the well box
- Note any obstructions or kinks in the well casing
- Note any equipment in the well casing, such as transducers, bailers, or tubing
- Condition of general area surrounding the well, such as subsidence, potholes, or if the well is submerged within a puddle.

Replace any missing or stripped bolts, and redevelop wells if needed.

3.3 LOW-FLOW PURGING METHOD AND SAMPLING PROCEDURES

Groundwater samples will be collected using low-flow purging and sampling procedures consistent with Ecology guidelines and the U.S. Environmental Protection Agency (USEPA) standard operating procedures (USEPA 1996). The following describes the Low-Flow purging and sampling procedures for collecting groundwater samples using a peristaltic pump. If the water level is greater than 20 feet below ground surface (bgs), Grundfos or Geotech submersible pumps or bladder pumps can be used since their pumping rates can be adjusted to low-flow levels.

- Place the peristaltic pump and water quality equipment near the wellhead. Slowly lower new poly tubing down into the well casing approximately to the middle of the well screen. If the depth of the well screen is not known, lower the tubing to the bottom of the well, making sure that the tubing has not been caught on the slotted well casing, and then raise the tubing 3 to 5 feet off the bottom of the casing. Document the estimated depth of the tubing placement within the well. Connect the tubing to the peristaltic pump using new flex tubing and connect the discharge line to the flow-through cell of the water quality meter. The discharge line from the flow cell should be directed to a bucket to contain the purged water.
- If using a low-flow submersible pump, connect the pump head to dedicated or disposable tubing. If using a bladder pump, connect both the air intake and water discharge ports to decontaminated or disposable tubing, using the manufacturer's instructions to ensure a secure connection. Lower the pump with tubing into the well as described above and connect the water discharge tubing directly to the flow-through cell.
- Measure the depth to water to the nearest 0.01 foot with a decontaminated water level meter and record the information on a sampling form.
- Start pumping the well at a purge rate of 0.1 to 0.2 liters per minute and slowly increase the rate. Purge rate is adjusted using a speed control knob or arrows on peristaltic and low-flow submersible pumps. The purge rate for bladder pumps is controlled by the air compressor, which first pressurizes the pump chamber in order

- to compress the flexible bladder and force water through the discharge line, and then vents the chamber in order to allow the bladder to refill with water.
- A good rule of thumb is to pressurize to 10 psi + 0.5 psi/foot of tubing depth and begin with 4 discharge/refill cycles per minute; using greater air pressure and accelerating the pump cycles will increase the purge rate.
 - Check the water level. If the water level is dropping, lower the purge rate. Maintain a steady flow with no or minimal drawdown (less than 0.33 feet according to USEPA 2002). Maintaining a drawdown of less than 0.33 feet may not be feasible depending on hydrogeological conditions. If possible, measure the discharge rate of the pump with a graduated cylinder or use a stopwatch when filling sampling jars (500 milliliters [mL] polyethylene or glass ambers) to estimate the rate. When purging water through a flow cell, the maximum flow rate for accurate water quality readings is about 0.5 liters per minute (L/minute).
 - Monitor and record water quality parameters every three to five minutes after one tubing volume (including the volume of water in the flow cell) has been purged.
 - One foot of ¼-inch interior diameter tubing holds about 10 mL of water, and flow-through cells typically hold less than 200 mL of water; one volume should be purged after about 5 minutes at a flow rate of 0.1 L/minute.
 - Water-quality indicator parameters that will be monitored and recorded during purging include:
 - pH
 - Specific conductivity
 - Dissolved oxygen
 - Temperature
 - Turbidity
 - Oxidation reduction potential (ORP)
 - Purging will continue until temperature, pH, turbidity, and specific conductivity are approximately stable (when measurements are within 10 percent) for three consecutive readings, or 30 minutes have elapsed. Because these field parameters (especially dissolved oxygen and ORP) may not reach the stabilization criteria, collection of the groundwater sample will be based on the professional judgment of field personnel at the time of sampling.
 - The water sample can be collected once the criteria above have been met.
 - If drawdown in the well cannot be maintained at 0.33 feet or less, reduce the flow or turn off the pump for 15 minutes and allow for recovery. If the water quality parameters have stabilized, and if at least two tubing volumes and the flow cell volume have been purged, then sample collection can proceed when the water level has recovered and the pump is turned back on. This should be noted on the sampling form.

- To collect the water sample, maintain the same pumping rate. After the well has been purged and the sample bottles have been labeled, the groundwater sample will be collected by directly filling the laboratory-provided bottles from the pump discharge line prior to passing through the flow cell. All sample containers should be filled with minimum disturbance by allowing the water to flow down the inside of the bottle or vial. When collecting a volatile organic compound (VOC) sample, fill to the top to form a meniscus over the mouth of the vial prior to placing the cap to eliminate air bubbles. Be careful not to overflow preserved bottles/pre-cleaned Volatile Organic Analyte (VOA) vials.
- If sampling for filtered metals, collect these samples last and fit an in-line filter at the end of the discharge line. Take note of the flow direction arrow on the filter prior to fitting. A minimum of 0.5 to 1 liter of groundwater must pass through the filter prior to collecting the sample.
- Sample labels will clearly identify the project name, sampler's initials, sample location and unique sample id, analysis to be performed, date, and time. After collection, samples will be placed in a cooler maintained at a temperature of approximately 4 to 6 degrees Celsius (°C) using ice. Chain-of-Custody Forms will be completed. Upon transfer of the samples to the laboratory, the Chain-of-Custody Form will be signed by the persons transferring custody of the sample containers to document change in possession.
- When sample collection is complete at a designated location, remove and properly dispose of the non-dedicated tubing. In most cases, this waste is considered solid waste and can be disposed of as refuse. Close and lock the well.

4.0 Decontamination

All reusable equipment that comes into contact with groundwater should be decontaminated using the processes described in this section prior to moving to the next sampling location.

Water Level Meter: The water level indicator and tape will be decontaminated between sampling locations and at the end the day by spraying the entire length of tape that came in contact with groundwater with an Alconox (or similar)/clean water solution followed by a thorough rinse with distilled or deionized water.

Water Quality Sensors and Flow-Through Cell: Distilled water or deionized water will be used to rinse the water quality sensors and flow-through cell. No other decontamination procedures are recommended since they are sensitive equipment. After the sampling event, the water quality meters will be cleaned and maintained according to the specific manual.

Submersible Pump (if applicable): Decontaminating the pump requires running the pump in three progressively cleaner grades of water.

1. Fill a bucket with approximately 4 gallons or more to sufficiently cover the pump of an Alconox (or similar)/clean water solution. Place the pump and the length of the

power cord (if applicable) that was in contact with water into the bucket and run the pump for approximately two minutes or until the volume of water in the bucket has been exhausted.

2. Fill a second bucket containing approximately 4 gallons or more to sufficiently cover the pump of clean water. Place the pump and cord into this bucket and run the pump for approximately two minutes or until the volume of water in the bucket has been exhausted.
3. Fill a third bucket with approximately 4 gallons or more to sufficiently cover the pump of distilled or deionized water. Place the pump and cord into this bucket and run the pump for approximately two minutes or until the volume of water in the bucket has been exhausted.

Bladder Pump: Clean the inside and outside of the pump body with an Alconox (or similar)/clean water solution, followed by a thorough rinse with distilled or deionized water. The outside of the air supply line that came in contact with groundwater may also be cleaned with Alconox (or similar) solution and re-used; bladders and water discharge lines must be replaced after each sample is collected.

5.0 Investigation-Derived Waste (IDW)

Unless otherwise specified in the project work plan, water generated during groundwater sampling activities will be contained, transported, disposed of in accordance with applicable laws, and stored in a designated area until transported off-site for disposal.

The approach to handling and disposal of these materials for a typical cleanup site is as follows. For IDW that is containerized, such as purge water, 55-gallon drums (or other smaller sized drums) approved by the Washington State Department of Transportation will be used for temporary storage pending profiling and disposal. Each container holding IDW will be sealed and labeled as to its contents (e.g., "purge water"), the dates on which the wastes were placed in the container, the owner's name and contact information for the field person who generated the waste, and the site name.

IDW containerized within drums will be characterized relative to applicable waste criteria using data from the sampling locations whenever possible. Material that is designated for off-site disposal will be transported to an off-site facility permitted to accept the waste. Manifests will be used, as appropriate for disposal.

Disposable sampling materials and incidental trash such as paper towels and PPE used in sample processing will be placed in heavy-duty garbage bags or other appropriate containers and disposed of as trash in the municipal collection system.

6.0 Field Documentation

Groundwater sampling activities will be documented in field sampling forms and/or field notebooks, and Chain-of-Custody Forms. Information recorded will, at a minimum, include personnel present (including subcontractors or client representatives), purpose of field event, weather conditions, sample collection date and times, sample analytes, depths to water, water quality parameters, well box/lid conditions, amount of purged water generated, and any deviations from the SAP. Photographs of damaged well casings or well boxes should be taken.

7.0 References

USEPA. 1996. Low-Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells, Revision 2. Region 1. July 30, 1996.

_____. 2002. Groundwater Sampling Guidelines for Superfund and CAR Project Managers. Office of Solid Waste and Emergency Response. EPA 542.S-02-001. May 2002.

Attachment 2
Analytical Laboratory Reports



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

January 26, 2021

Megan King
Floyd & Snider
601 Union Street, Suite 600
Seattle, WA 98101

Re: Analytical Data for Project CoEv-Devel
Laboratory Reference No. 2101-210

Dear Megan:

Enclosed are the analytical results and associated quality control data for samples submitted on January 22, 2021.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



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

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

Date of Report: January 26, 2021
Samples Submitted: January 22, 2021
Laboratory Reference: 2101-210
Project: CoEv-Devel

Case Narrative

Samples were collected on January 20 and 21, 2021 and received by the laboratory on January 22, 2021. 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.

Semivolatiles EPA 8270E Analysis

Sample MW-99-012021 had one surrogate recovery outside of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

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: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-36-012021					
Laboratory ID:	01-210-01					
bis(2-Ethylhexyl)phthalate	ND	0.98	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	34	10 - 80				
Phenol-d6	25	10 - 87				
Nitrobenzene-d5	63	33 - 105				
2-Fluorobiphenyl	56	41 - 105				
2,4,6-Tribromophenol	69	25 - 124				
Terphenyl-d14	60	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-37-012021					
Laboratory ID:	01-210-02					
bis(2-Ethylhexyl)phthalate	ND	1.0	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	39	10 - 80				
Phenol-d6	31	10 - 87				
Nitrobenzene-d5	70	33 - 105				
2-Fluorobiphenyl	60	41 - 105				
2,4,6-Tribromophenol	79	25 - 124				
Terphenyl-d14	68	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-99-012021					
Laboratory ID:	01-210-03					
bis(2-Ethylhexyl)phthalate	ND	0.99	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	22	10 - 80				
Phenol-d6	17	10 - 87				
Nitrobenzene-d5	42	33 - 105				
2-Fluorobiphenyl	39	41 - 105				
2,4,6-Tribromophenol	69	25 - 124				
Terphenyl-d14	61	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-11R-012021					
Laboratory ID:	01-210-04					
bis(2-Ethylhexyl)phthalate	ND	0.99	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	38	10 - 80				
Phenol-d6	28	10 - 87				
Nitrobenzene-d5	71	33 - 105				
2-Fluorobiphenyl	62	41 - 105				
2,4,6-Tribromophenol	77	25 - 124				
Terphenyl-d14	67	47 - 116				



Date of Report: January 26, 2021
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 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-21R-012121					
Laboratory ID:	01-210-05					
bis(2-Ethylhexyl)phthalate	ND	0.98	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	37	10 - 80				
Phenol-d6	28	10 - 87				
Nitrobenzene-d5	69	33 - 105				
2-Fluorobiphenyl	61	41 - 105				
2,4,6-Tribromophenol	74	25 - 124				
Terphenyl-d14	64	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-30-012121					
Laboratory ID:	01-210-06					
bis(2-Ethylhexyl)phthalate	ND	0.99	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	32	10 - 80				
Phenol-d6	24	10 - 87				
Nitrobenzene-d5	63	33 - 105				
2-Fluorobiphenyl	59	41 - 105				
2,4,6-Tribromophenol	76	25 - 124				
Terphenyl-d14	67	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-39R-012121					
Laboratory ID:	01-210-07					
bis(2-Ethylhexyl)phthalate	ND	0.99	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	34	10 - 80				
Phenol-d6	25	10 - 87				
Nitrobenzene-d5	67	33 - 105				
2-Fluorobiphenyl	56	41 - 105				
2,4,6-Tribromophenol	71	25 - 124				
Terphenyl-d14	64	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-38-012121					
Laboratory ID:	01-210-08					
bis(2-Ethylhexyl)phthalate	ND	0.96	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	27	10 - 80				
Phenol-d6	21	10 - 87				
Nitrobenzene-d5	54	33 - 105				
2-Fluorobiphenyl	50	41 - 105				
2,4,6-Tribromophenol	69	25 - 124				
Terphenyl-d14	62	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-31-012121					
Laboratory ID:	01-210-09					
bis(2-Ethylhexyl)phthalate	ND	0.97	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	30	10 - 80				
Phenol-d6	24	10 - 87				
Nitrobenzene-d5	58	33 - 105				
2-Fluorobiphenyl	58	41 - 105				
2,4,6-Tribromophenol	79	25 - 124				
Terphenyl-d14	66	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

**SEMIVOLATILE ORGANICS EPA 8270E
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0125W1					
bis(2-Ethylhexyl)phthalate	ND	1.0	EPA 8270E	1-25-21	1-25-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	39	10 - 80				
Phenol-d6	29	10 - 87				
Nitrobenzene-d5	66	33 - 105				
2-Fluorobiphenyl	59	41 - 105				
2,4,6-Tribromophenol	77	25 - 124				
Terphenyl-d14	66	47 - 116				



Date of Report: January 26, 2021
 Samples Submitted: January 22, 2021
 Laboratory Reference: 2101-210
 Project: CoEv-Devel

**SEMIVOLATILE ORGANICS EPA 8270E
 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:	01-210-07										
	MS	MSD	MS	MSD		MS	MSD				
Phenol	10.6	11.3	40.5	40.1	ND	26	28	20 - 108	6	24	
2-Chlorophenol	20.7	20.6	40.5	40.1	ND	51	51	24 - 105	0	32	
1,4-Dichlorobenzene	8.86	8.55	20.3	20.1	ND	44	43	24 - 100	4	36	
n-Nitroso-di-n-propylamine	12.8	13.8	20.3	20.1	ND	63	69	25 - 133	8	30	
1,2,4-Trichlorobenzene	9.07	9.42	20.3	20.1	ND	45	47	34 - 105	4	34	
4-Chloro-3-methylphenol	24.4	27.7	40.5	40.1	ND	60	69	44 - 113	13	15	
Acenaphthene	9.58	11.0	20.3	20.1	ND	47	55	47 - 106	14	19	
4-Nitrophenol	16.0	18.9	40.5	40.1	ND	40	47	20 - 120	17	37	
2,4-Dinitrotoluene	12.3	14.6	20.3	20.1	ND	61	73	45 - 106	17	18	
Pentachlorophenol	24.8	28.5	40.5	40.1	ND	61	71	20 - 136	14	39	
Pyrene	11.9	13.4	20.3	20.1	ND	59	67	47 - 112	12	15	
<i>Surrogate:</i>											
2-Fluorophenol						32	32	10 - 80			
Phenol-d6						23	24	10 - 87			
Nitrobenzene-d5						60	63	33 - 105			
2-Fluorobiphenyl						49	55	41 - 105			
2,4,6-Tribromophenol						63	73	25 - 124			
Terphenyl-d14						57	66	47 - 116			





Data Qualifiers and Abbreviations

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





Mn 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

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Company: Floyd Snider
 Project Number: _____
 Project Name: CoEV - Devel
 Project Manager: Megan King
 Sampled by: TS + RS

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	MW-36-012021	1.20.21	15:10	GW
2	MW-37-012021		13:10	
3	MW-99-012021		13:20	
4	MW-11R-012021		16:45	
5	MW-21R-012121	1.21.21	10:05	
6	MW-30-012121		12:55	
7	MW-39R-012121		12:40	
8	MW-38-012121		15:30	
9	MW-31-012121		17:00	

Number of Containers

Parameter	1	2	3	4	5	6	7	8	9
NWTPH-HCID									
NWTPH-Gx/BTEX									
NWTPH-Gx									
NWTPH-Dx (<input type="checkbox"/> 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									
SVOC BIS (2-Ethylhexyl) phthalate 8270	X	X	X	X	X	X	X	X	X
% Moisture									

Laboratory Number: 01-210

Signature	Company	Date	Time	Comments/Special Instructions
	Floyd Snider	1.22.21	15:11	MW-39R-012121 is MS/MSD
	Alpha	1-22-21	3:11	
	Alpha	1-22-21	3:50	
	Alpha	1/21/21	15:50	

Received _____
 Relinquished _____
 Relinquished _____
 Received _____
 Relinquished _____
 Reviewed/Date _____

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)

Sample/Cooler Receipt and Acceptance Checklist

Client: FLS

Client Project Name/Number: CoEv-Devel

OnSite Project Number: 01-210

Initiated by: MM

Date Initiated: 1/22/21

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	N/A	Temperature:	<u>2.2</u>
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A			
1.7 How were the samples delivered?	Client	<input checked="" type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup	<input type="radio"/> Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4	
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1 2 3 4	
3.8 Was method 5035A used?	Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1 2 3 4	

Explain any discrepancies:

1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed



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

July 13, 2021

Kate Snider
Floyd & Snider
Two Union Square
601 Union Street, Suite 600
Seattle, WA 98101

Re: Analytical Data for Project COEV-Devel
Laboratory Reference No. 2107-071

Dear Kate:

Enclosed are the analytical results and associated quality control data for samples submitted on July 9, 2021.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



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

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

Date of Report: July 13, 2021
Samples Submitted: July 9, 2021
Laboratory Reference: 2107-071
Project: COEV-Devel

Case Narrative

Samples were collected on July 7 and 8, 2021 and received by the laboratory on July 9, 2021. 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 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-30-070721					
Laboratory ID:	07-071-01					
bis(2-Ethylhexyl)phthalate	ND	4.9	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	42	10 - 82				
Phenol-d6	30	10 - 92				
Nitrobenzene-d5	66	32 - 105				
2-Fluorobiphenyl	66	38 - 105				
2,4,6-Tribromophenol	76	25 - 124				
Terphenyl-d14	73	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-36-070721					
Laboratory ID:	07-071-02					
bis(2-Ethylhexyl)phthalate	ND	5.0	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	37	10 - 82				
Phenol-d6	28	10 - 92				
Nitrobenzene-d5	58	32 - 105				
2-Fluorobiphenyl	60	38 - 105				
2,4,6-Tribromophenol	78	25 - 124				
Terphenyl-d14	75	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-37-070721					
Laboratory ID:	07-071-03					
bis(2-Ethylhexyl)phthalate	ND	4.9	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	40	10 - 82				
Phenol-d6	30	10 - 92				
Nitrobenzene-d5	64	32 - 105				
2-Fluorobiphenyl	63	38 - 105				
2,4,6-Tribromophenol	71	25 - 124				
Terphenyl-d14	68	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-38-070721					
Laboratory ID:	07-071-04					
bis(2-Ethylhexyl)phthalate	ND	4.8	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	43	10 - 82				
Phenol-d6	32	10 - 92				
Nitrobenzene-d5	70	32 - 105				
2-Fluorobiphenyl	70	38 - 105				
2,4,6-Tribromophenol	74	25 - 124				
Terphenyl-d14	78	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-21R-070821					
Laboratory ID:	07-071-05					
bis(2-Ethylhexyl)phthalate	ND	4.9	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	44	10 - 82				
Phenol-d6	32	10 - 92				
Nitrobenzene-d5	68	32 - 105				
2-Fluorobiphenyl	68	38 - 105				
2,4,6-Tribromophenol	73	25 - 124				
Terphenyl-d14	73	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-29R-070821					
Laboratory ID:	07-071-06					
bis(2-Ethylhexyl)phthalate	ND	4.9	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	23	10 - 82				
Phenol-d6	18	10 - 92				
Nitrobenzene-d5	36	32 - 105				
2-Fluorobiphenyl	41	38 - 105				
2,4,6-Tribromophenol	55	25 - 124				
Terphenyl-d14	56	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-39R-070821					
Laboratory ID:	07-071-07					
bis(2-Ethylhexyl)phthalate	ND	4.8	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	32	10 - 82				
Phenol-d6	24	10 - 92				
Nitrobenzene-d5	52	32 - 105				
2-Fluorobiphenyl	50	38 - 105				
2,4,6-Tribromophenol	62	25 - 124				
Terphenyl-d14	65	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
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 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	DUP-1-070821					
Laboratory ID:	07-071-08					
bis(2-Ethylhexyl)phthalate	ND	4.8	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	24	10 - 82				
Phenol-d6	18	10 - 92				
Nitrobenzene-d5	40	32 - 105				
2-Fluorobiphenyl	43	38 - 105				
2,4,6-Tribromophenol	60	25 - 124				
Terphenyl-d14	63	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
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 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-31-070821					
Laboratory ID:	07-071-09					
bis(2-Ethylhexyl)phthalate	ND	4.8	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	33	10 - 82				
Phenol-d6	26	10 - 92				
Nitrobenzene-d5	56	32 - 105				
2-Fluorobiphenyl	57	38 - 105				
2,4,6-Tribromophenol	73	25 - 124				
Terphenyl-d14	65	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	FB-1-070821					
Laboratory ID:	07-071-10					
bis(2-Ethylhexyl)phthalate	ND	4.8	EPA 8270E	7-12-21	7-13-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	39	10 - 82				
Phenol-d6	30	10 - 92				
Nitrobenzene-d5	58	32 - 105				
2-Fluorobiphenyl	63	38 - 105				
2,4,6-Tribromophenol	75	25 - 124				
Terphenyl-d14	74	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

SEMIVOLATILE ORGANICS EPA 8270E

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-11R-070821					
Laboratory ID:	07-071-11					
bis(2-Ethylhexyl)phthalate	ND	5.0	EPA 8270E	7-12-21	7-13-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	34	10 - 82				
Phenol-d6	25	10 - 92				
Nitrobenzene-d5	54	32 - 105				
2-Fluorobiphenyl	55	38 - 105				
2,4,6-Tribromophenol	60	25 - 124				
Terphenyl-d14	59	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

**SEMIVOLATILE ORGANICS EPA 8270E
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0712W1					
bis(2-Ethylhexyl)phthalate	ND	5.0	EPA 8270E	7-12-21	7-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	37	10 - 82				
Phenol-d6	30	10 - 92				
Nitrobenzene-d5	57	32 - 105				
2-Fluorobiphenyl	61	38 - 105				
2,4,6-Tribromophenol	70	25 - 124				
Terphenyl-d14	72	42 - 116				



Date of Report: July 13, 2021
 Samples Submitted: July 9, 2021
 Laboratory Reference: 2107-071
 Project: COEV-Devel

**SEMIVOLATILE ORGANICS EPA 8270E
 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:	07-066-01										
	MS	MSD	MS	MSD		MS	MSD				
Phenol	88.2	75.8	160	160	ND	55	47	20 - 108	15	24	
2-Chlorophenol	84.1	69.4	160	160	ND	53	43	24 - 105	19	32	
1,4-Dichlorobenzene	37.9	30.9	80.0	80.0	ND	47	39	24 - 100	20	36	
n-Nitroso-di-n-propylamine	41.9	35.4	80.0	80.0	ND	52	44	21 - 143	17	30	
1,2,4-Trichlorobenzene	44.5	34.8	80.0	80.0	ND	56	44	34 - 105	24	34	
4-Chloro-3-methylphenol	101	98.7	160	160	ND	63	62	44 - 113	2	21	
Acenaphthene	43.9	42.1	80.0	80.0	ND	55	53	47 - 106	4	19	
4-Nitrophenol	118	121	160	160	ND	74	76	20 - 127	3	37	
2,4-Dinitrotoluene	47.3	46.0	80.0	80.0	ND	59	58	45 - 106	3	19	
Pentachlorophenol	153	152	160	160	ND	96	95	20 - 136	1	39	
Pyrene	48.2	47.6	80.0	80.0	ND	60	60	47 - 112	1	23	
<i>Surrogate:</i>											
2-Fluorophenol						51	42	10 - 82			
Phenol-d6						59	50	10 - 92			
Nitrobenzene-d5						64	50	32 - 105			
2-Fluorobiphenyl						69	64	38 - 105			
2,4,6-Tribromophenol						70	69	25 - 124			
Terphenyl-d14						69	68	42 - 116			





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

Turnaround Request
 (in working days)
 (Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: **07-0771**

Company: Floyd Snider
 Project Number:
 Project Name: COEU-Devel
 Project Manager: Kate Snider
 Sampled by: Sabine Datum & Tyler Scott

Date Sampled: 7.8.21 Time Sampled: 15:55 Matrix: GW

Number of Containers

NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx <input type="checkbox"/> Acid / SG Clean-up	
Volatiles 8260D	
Halogenated Volatiles 8260D	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270E/SIM (with low-level PAHs)	
PAHs 8270E/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270E/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	
<input checked="" type="checkbox"/> BEHP* 8270 * bis(2-ethylhexyl) phthalate	
% Moisture	

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx <input type="checkbox"/> Acid / SG Clean-up	Volatiles 8260D	Halogenated Volatiles 8260D	EDB EPA 8011 (Waters Only)	Semivolatiles 8270E/SIM (with low-level PAHs)	PAHs 8270E/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270E/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Other	% Moisture	
11	MW-11R-070821	7.8.21	15:55	GW	2																				

Signature

[Signature]

Company

Floyd Snider

Date

7.9.21

Time

9:16

Comments/Special Instructions

Relinquished: [Signature]
 Received: [Signature]
 Relinquished: [Signature]
 Received: [Signature]
 Relinquished: [Signature]
 Received: [Signature]

Speedy Alpha
 Speedy Alpha

7:9:21
7:9:21
7:9:21
7:9:21
7:9:21

9:17
10:35
10:35
10:35
10:35

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)

Reviewed/Date

Sample/Cooler Receipt and Acceptance Checklist

Client: FLS

Client Project Name/Number: COEV-Devel

Initiated by: CMV

OnSite Project Number: 07-071

Date Initiated: 7/9/21

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	No	N/A	Temperature: <u>6.5</u>
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A		
1.7 How were the samples delivered?	Client	<input checked="" type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup
			<input type="radio"/> Other	

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

**CITY OF EVERETT
ENVIRONMENTAL LABORATORY**

PROJECT #

00057730

Client: FLOYD SNIDER
Program: Everett Landfill
Contact: MEGAN KING

Date Received: 01/22/21
Data Release: SF
Date Reported: 03/04/21

						BN24771	BN24772
						MW-36-012021	MW-37-012021
						1/20/2021	1/20/2021
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	1.0	200.8/6020B	4.0	4.9	<1.0
	Dis. Iron	µg/L	40	6020B	160	12800	15000
	Dis. Manganese	µg/L	1.0	200.8/6020B	4.0	1130	1570
	Dis. Nickel	µg/L	1.0	200.8/6020B	4.0	2.1 J	<1.0
	Dis. Zinc	µg/L	10	200.8/6020B	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.0	SM4500-CL-E	0.0	44.3	967
						BN24773	BN24774
						MW-99-012021	MW-11R-012021
						1/20/2021	1/20/2021
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	1.0	200.8/6020B	4.0	<1.0	<1.0
	Dis. Iron	µg/L	40	6020B	160	14900	3390
	Dis. Manganese	µg/L	1.0	200.8/6020B	4.0	1670	722
	Dis. Nickel	µg/L	1.0	200.8/6020B	4.0	<1.0	<1.0
	Dis. Zinc	µg/L	10	200.8/6020B	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.0	SM4500-CL-E	0.0	995	13.2
						BN24775	BN24776
						MW-21R-012121	MW-30-012121
						1/21/2021	1/21/2021
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	1.0	200.8/6020B	4.0	13.5	7.6
	Dis. Iron	µg/L	40	6020B	160	12900	11800
	Dis. Manganese	µg/L	1.0	200.8/6020B	4.0	1770	534
	Dis. Nickel	µg/L	1.0	200.8/6020B	4.0	<1.0	<1.0
	Dis. Zinc	µg/L	10	200.8/6020B	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.0	SM4500-CL-E	0.0	12.2	13.9
						BN24777	BN24779
						MW-39R-012121	MW-38-012121
						1/21/2021	1/21/2021
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	1.0	200.8/6020B	4.0	<1.0	<1.0
	Dis. Iron	µg/L	40	6020B	160	4750	3090
	Dis. Manganese	µg/L	1.0	200.8/6020B	4.0	247	272
	Dis. Nickel	µg/L	1.0	200.8/6020B	4.0	<1.0	<1.0
	Dis. Zinc	µg/L	10	200.8/6020B	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.0	SM4500-CL-E	0.0	7.2	12.1
						BN24780	
						MW-31-012121	
						1/21/2021	
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	1.0	200.8/6020B	4.0	2.0 J	
	Dis. Iron	µg/L	40	6020B	160	43900	
	Dis. Manganese	µg/L	1.0	200.8/6020B	4.0	1200	
	Dis. Nickel	µg/L	1.0	200.8/6020B	4.0	3.3 J	
	Dis. Zinc	µg/L	10	200.8/6020B	40	<10	
NUTRIENTS	Dis. Chloride	mg/L	0.0	SM4500-CL-E	0.0	147	

DATA REPORTING QUALIFIERS

DL = Detection Limit
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J = Analyte concentration less than PQL
SA = See Attached
ND = No Data
TNTC = Too numerous to count

When Dissolved Metals > Total Metals note possible filtering process contamination
P/A (used for Total Coliform results) P= Coliforms present, A = Coliforms absent
Y/N (used for E. Coli Results) Y= E. Coli present, N=E. Coli absent
E = Estimated Value. Count from plates not within ideal range.
R = Sample was re-analyzed after holding time.



**CITY OF EVERETT
ENVIRONMENTAL LABORATORY**
 Phone: (425)257-8230 Fax: (425)257-8228
 Sample Dropoff: 4027 4th St SE, Everett WA 98201
 Mailing Address: 3200 Cedar St, Everett WA 98201

57730
 PROJECT #
 COEU-Devel

**ANALYSIS REQUEST
CHAIN OF CUSTODY**

Date: 01/22/2021

Client: Floyd Snider Address: 600 Union St. #601
 Program: CoEU Sample Site: Everett Landfill Seattle, WA 98101
 Phone: 206-292-2078 Collected By: Tyler Scott/Rockelle Shaw Requested By: _____

Sample Description	LIMS ID# (Lab Use Only)	Sample Date	Sample Time	Comp Grab	Sample Matrix	Analyses Requested															
						Chloride	Sulfate-Cu-E	P.S. Metals	2008/6020B												
MW-36-012021	BN 24771	1.20.21	15:10	Grab	GW	X	X														
MW-37-012021	72	↓	13:10			X	X														
MW-99-012021	73	↓	13:20			X	X														
MW-11R-012021	74	↓	16:45			X	X														
MW-21R-012121	75	1.21.21	10:05			X	X														
MW-30-012121	76	↓	12:55			X	X														
MW-39R-012121	77	↓	12:40			X	X														
MW-39R-012121	78	↓	12:40			X	X														
MW-38-012121	79	↓	15:30			X	X														
MW-31-012121	80	↓	17:00	↓	↓	X	X														

Cooler w/Ice? (Y) N Rec Temp: _____ °C -INDICATE: LAB PERFORMING ANALYSIS /# OF CONTAINERS-

CHAIN OF CUSTODY

*Relinquished: <u>Tyler Scott</u>	Received: <u>[Signature]</u>	Date: <u>1/22/21</u>	Time: <u>12:55</u>
*Relinquished:	Received:	Date:	Time:
*Relinquished:	Received:	Date:	Time:

COMMENTS: All metals bottles have been field filtered. (0.45 micron)
 * MW-39R is MS/MSD Sample.
 * Please send scan of COC to tyler.scott@floydsnider.com
 EMAIL: megan.king@floydsnider.com

*Because the City of Everett Environmental Laboratory is a public agency, data, test results, reports and other documents are public records and therefore subject to disclosure to third parties upon their request pursuant to RCW Chap. 42.17.



CITY OF EVERETT
ENVIRONMENTAL LABORATORY
Phone: (425)257-8230 Fax: (425)257-8228
Sample Dropoff: 4027 4th St SE, Everett WA 98201
Mailing Address: 3200 Cedar St, Everett WA 98201

PROJECT # 00057730

QC Report

Client: Floyd Snider

Batch: N-CL-DIS-46938 Dis. Chloride	Result	MDL	Units	% Rec	%Rec Limits	RPD %	RPD % Limit	Comments
METHOD BLANK	<0.3	0.3	mg/L					U
LABORATORY FORTIFIED BLANK	9.7	0.3	mg/L	97.4	90-110			
CALIBRATION CHECK	5.2	0.3	mg/L	104.2	90-110			
DUP	7.3	0.3	mg/L			1.1	20	
MATRIX SPIKE - BN24777	17.6	0.3	mg/L	103.4	90-110			
MATRIX SPIKE DUP - BN24777	17.8	0.3	mg/L			1.3	20	
LABORATORY CONTROL STANDARD	19.8	0.3	mg/L	102.5	90-110			

Batch: ICPMS-D-I-46954 Method Blank	Result	MDL	Units	% Rec	%Rec Limits	RPD %	RPD % Limit	Comments
Dis. Arsenic	<0.5	0.5	µg/L					U
Dis. Iron	<20	20	µg/L					U
Dis. Manganese	<0.5	0.5	µg/L					U
Dis. Nickel	<0.5	0.5	µg/L					U
Dis. Zinc	<5	5	µg/L					U

Laboratory Fortified Blank								
Dis. Arsenic	49.7	0.5	µg/L	99.3	85-115			
Dis. Iron	5030	20	µg/L	100.6	85-115			
Dis. Manganese	48.9	0.5	µg/L	97.8	85-115			
Dis. Nickel	49.4	0.5	µg/L	98.8	85-115			
Dis. Zinc	49	5	µg/L	98.9	85-115			

Calibration Check								
Dis. Arsenic	49.5	0.5	µg/L	99.1	90-110			
Dis. Iron	2020	20	µg/L	101.1	90-110			
Dis. Manganese	49.6	0.5	µg/L	99.3	90-110			
Dis. Nickel	50.7	0.5	µg/L	101.3	90-110			
Dis. Zinc	51	5	µg/L	101	90-110			

Matrix Spike - BN24777								
Dis. Arsenic	98.2	1	µg/L	98	75-125			
Dis. Iron	14600	40	µg/L	98.1	75-125			
Dis. Manganese	342	1	µg/L	94.3	75-125			
Dis. Nickel	96.0	1	µg/L	95.8	75-125			
Dis. Zinc	96.5	10	µg/L	96.5	75-125			

Matrix Spike Dup - BN24777								
Dis. Arsenic	99.6	1	µg/L			1.4	20	
Dis. Iron	14900	40	µg/L			2.2	20	
Dis. Manganese	342	1	µg/L			0.1	20	
Dis. Nickel	96.8	1	µg/L			0.9	20	
Dis. Zinc	99	10	µg/L			2.9	20	

Laboratory Control Standard								
Dis. Arsenic	36.4	0.5	µg/L	99.9	80-120			
Dis. Iron	1660	20	µg/L	104.8	80-120			
Dis. Manganese	606	0.5	µg/L	103.1	80-120			
Dis. Nickel	419	0.5	µg/L	103.1	80-120			
Dis. Zinc	1090	5	µg/L	103.1	80-120			

Client: FLOYD SNIDER
Program: Everett Landfill
Contact: SABINE DATUM

Date Received: 07/08/21
Data Release: CM
Date Reported: 08/16/21

						BN40938	BN40939
						MW-30-070721	MW-36-070721
						07/07/21	07/07/21
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	0.6	200.8	2.4	7.2	4.2
	Dis. Iron	µg/L	20	200.8	80	11500	16000
	Dis. Manganese	µg/L	0.6	200.8	2.4	547	559
	Dis. Nickel	µg/L	0.6	200.8	2.4	<0.6	0.8 J
	Dis. Zinc	µg/L	10	200.8	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.6	SM4500-CL-E	2.4	15.7	
			1.5	SM4500-CL-E	6.0		82.0
						BN40940	BN40941
						MW-37-070721	MW-38-070721
						07/07/21	07/07/21
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	0.6	200.8	2.4	<0.6	<0.6
	Dis. Iron	µg/L	20	200.8	80	20200	3150
	Dis. Manganese	µg/L	0.6	200.8	2.4	1690	283
	Dis. Nickel	µg/L	0.6	200.8	2.4	<0.6	<0.6
	Dis. Zinc	µg/L	10	200.8	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.3	SM4500-CL-E	1.2		14.3
			15	SM4500-CL-E	60	1180	
						BN40942	BN40943
						MW-21R-070821	MW-29R-070821
						07/08/21	07/08/21
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	0.6	200.8	2.4	24.6	<0.6
	Dis. Iron	µg/L	20	200.8	80	12900	7050
	Dis. Manganese	µg/L	0.6	200.8	2.4	2210	442
	Dis. Nickel	µg/L	0.6	200.8	2.4	<0.6	<0.6
	Dis. Zinc	µg/L	10	200.8	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.3	SM4500-CL-E	1.2	8.1	11.5
						BN40944	BN40945
						MW-39R-070821	DUP-1-070821
						07/08/21	07/08/21
Department	Analysis	Units	DL	Method	PQL		
METALS(D)	Dis. Arsenic	µg/L	0.6	200.8	2.4	<0.6	<0.6
	Dis. Iron	µg/L	20	200.8	80	5110	5150
	Dis. Manganese	µg/L	0.6	200.8	2.4	250	247
	Dis. Nickel	µg/L	0.6	200.8	2.4	<0.6	<0.6
	Dis. Zinc	µg/L	10	200.8	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.3	SM4500-CL-E	1.2	7.1	7.1

DATA REPORTING QUALIFIERS

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TNTC = Too numerous to count

When Dissolved Metals > Total Metals note possible filtering process contamination
P/A (used for Total Coliform results) P= Coliforms present, A = Coliforms absent
Y/N (used for E. Coli Results) Y= E. Coli present, N=E. Coli absent
E = Estimated Value. Count from plates not within ideal range.
R = Sample was re-analyzed after holding time.
PHT = Analyzed past hold time

**CITY OF EVERETT
ENVIRONMENTAL LABORATORY**

PROJECT #

00058826

Client:	FLOYD SNIDER	Date Received:	07/08/21
Program:	Everett Landfill	Data Release:	CM
Contact:	SABINE DATUM	Date Reported:	08/16/21

Department	Analysis	Units	DL	Method	PQL	BN40946	BN40947
						MW-31-070821	FB-1-070821
						07/08/21	07/08/21
METALS(D)	Dis. Arsenic	µg/L	0.6	200.8	2.4	1.8 J	<0.6
	Dis. Iron	µg/L	20	200.8	80	43300	<20
	Dis. Manganese	µg/L	0.6	200.8	2.4	1230	<0.6
	Dis. Nickel	µg/L	0.6	200.8	2.4	3.1	<0.6
	Dis. Zinc	µg/L	10	200.8	40	<10	<10
NUTRIENTS	Dis. Chloride	mg/L	0.3	SM4500-CL-E	1.2		<0.3
			3.0	SM4500-CL-E	12.0	145	

Department	Analysis	Units	DL	Method	PQL	BN40948
						MW-11R-070821
						07/08/21
METALS(D)	Dis. Arsenic	µg/L	0.6	200.8	2.4	<0.6
	Dis. Iron	µg/L	20	200.8	80	3900
	Dis. Manganese	µg/L	0.6	200.8	2.4	791
	Dis. Nickel	µg/L	0.6	200.8	2.4	<0.6
	Dis. Zinc	µg/L	10	200.8	40	<10
NUTRIENTS	Dis. Chloride	mg/L	0.3	SM4500-CL-E	1.2	12.3

DATA REPORTING QUALIFIERS

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When Dissolved Metals > Total Metals note possible filtering process contamination
P/A (used for Total Coliform results) P= Coliforms present, A = Coliforms absent
Y/N (used for E. Coli Results) Y= E. Coli present, N=E. Coli absent
E = Estimated Value. Count from plates not within ideal range.
R = Sample was re-analyzed after holding time.
PHT = Analyzed past hold time



**CITY OF EVERETT
ENVIRONMENTAL LABORATORY
3200 CEDAR STREET; EVERETT WA 98201
Phone: (425)257-8230 Fax: (425)257-8228**

PROJECT #

COEV DEVEL

58826

ANALYSIS REQUEST
CHAIN OF CUSTODY

Date: 7-7-2021

Client: <u>Floyd Snider</u>		Address: <u>601 UNION ST # 600</u>	
Program:	Sample Site: <u>COEV- Devel</u>	<u>SEATTLE WA 98101</u>	
Phone: <u>206-854-5203</u>	Collected By: <u>S. Datum + T. Scott</u>	Requested By: <u>SABINE DATUM</u>	

Requested sample report date (If less than 30 days):						Analyses Requested													
Purpose:						Dissolved Metals	Dissolved Chloride												
In Lab Contract			Outside Lab Contract																
Sample Description:	LIMS ID # (Lab Use Only)	Sample Date	Sample Time	Comp Grab	Sample Matrix														
MW-30-070721	BN 40938	7-7-21	17:45		GW	X	X												
MW-36-070721	939	↓	11:15		↓														
MW-37-070721	940	↓	13:00		↓														
MW-38-070721	941	↓	15:30		↓														
MW-21R-070821	942	7-8-21	9:25		GW														
MW-29R-070821	943	↓	11:30																
MW-39R-070821	944	↓	12:25																
DUP-1-070821	945	↓	12:30																
MW-51-070821	946	↓	14:10																
FB-1-070821	947	↓	14:20		W														
MN-11R-070821	948	↓	15:55		GW														
	9																		

Cooler? Y / N Cooler Temp: _____ °C --INDICATE: LAB PERFORMING ANALYSIS / # OF CONTAINERS--

CHAIN OF CUSTODY			
*Relinquished:	<u>[Signature]</u>	Received:	<u>[Signature]</u> Date: <u>7-8-21</u> Time: <u>1650</u>
*Relinquished:		Received:	Date: Time:
*Relinquished:		Received:	Date: Time:
*Relinquished:		Received:	Date: Time:

COMMENTS:
* Zinc, nickel, iron, manganese, arsenic
sabine.datum@floydshider.com

*Because the City of Everett Environmental Laboratory is a public agency, data, test results, reports and other documents are public records and therefore subject to disclosure to third parties upon their request pursuant to RCW Chap. 42.17.



CITY OF EVERETT
ENVIRONMENTAL LABORATORY
 Phone: (425)257-8230 Fax: (425)257-8228
 Sample Dropoff: 4027 4th St SE, Everett WA 98201
 Mailing Address: 3200 Cedar St, Everett WA 98201

PROJECT #
 00058826

QC Report

Client: Floyd Snider

Batch: N-CL-DIS-46938 Dis. Chloride	Result	MDL	Units	% Rec	%Rec Limits	RPD %	RPD % Limit	Comments
METHOD BLANK	<0.3	0.3	mg/L					U
LABORATORY FORTIFIED BLANK	10.0	0.3	mg/L	99.7	90-110			
CALIBRATION CHECK	5.0	0.3	mg/L	99.0	90-110			
DUP	15.8	0.6	mg/L			0.6	20	
MATRIX SPIKE - BN24777	36.5	0.6	mg/L	103.8	90-110			
MATRIX SPIKE DUP - BN24777	36.9	0.6	mg/L			1.1	20	
LABORATORY CONTROL STANDARD	11.4	0.3	mg/L	103.8	90-110			

Batch: ICPMS-D-I-46954 Method Blank	Result	MDL	Units	% Rec	%Rec Limits	RPD %	RPD % Limit	Comments
Dis. Arsenic	<0.3	0.3	µg/L					U
Dis. Iron	<10	10	µg/L					U
Dis. Manganese	<0.3	0.3	µg/L					U
Dis. Nickel	<0.3	0.3	µg/L					U
Dis. Zinc	<5	5	µg/L					U

Laboratory Fortified Blank								
Dis. Arsenic	49.3	0.3	µg/L	98.6	85-115			
Dis. Iron	2070	10	µg/L	103.6	85-115			
Dis. Manganese	50.9	0.3	µg/L	101.9	85-115			
Dis. Nickel	50.9	0.3	µg/L	101.8	85-115			
Dis. Zinc	51	5	µg/L	102.3	85-115			

Calibration Check								
Dis. Arsenic	50	0.3	µg/L	99.9	90-110			
Dis. Iron	4030	10	µg/L	100.7	90-110			
Dis. Manganese	2100	0.3	µg/L	100.1	90-110			
Dis. Nickel	52	0.3	µg/L	103.2	90-110			
Dis. Zinc	51	5	µg/L	102.0	90-110			

Matrix Spike - BN24777								
Dis. Arsenic	105	0.6	µg/L	98.1	70-130			
Dis. Iron	19800	20	µg/L	102.9	70-130			
Dis. Manganese	4690	0.6	µg/L	100.9	70-130			
Dis. Nickel	97.8	0.6	µg/L	97.6	70-130			
Dis. Zinc	100	10	µg/L	99.4	70-130			

Matrix Spike Dup - BN24777								
Dis. Arsenic	105	0.6	µg/L			0.2	20	
Dis. Iron	20000	20	µg/L			1.4	20	
Dis. Manganese	4620	0.6	µg/L			1.4	20	
Dis. Nickel	98.8	0.6	µg/L			1.0	20	
Dis. Zinc	99	10	µg/L			0.5	20	

Laboratory Control Standard								
Dis. Arsenic	36.3	0.3	µg/L	100.9	80-120			
Dis. Iron	1680	10	µg/L	106.5	80-120			
Dis. Manganese	610	0.3	µg/L	103.7	80-120			
Dis. Nickel	425	0.3	µg/L	104.6	80-120			
Dis. Zinc	1120	5	µg/L	105.5	80-120			



February 5, 2021

Ms. Megan King
Floyd Snider Inc.
601 Union St., Suite 600
Seattle, WA 98101

Dear Ms. King,

On January 22nd, 3 samples were received by our laboratory and assigned our laboratory project number EV21010161. The project was identified as your COEV-DEVEL. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Glen Perry
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT: Floyd Snider Inc. DATE: 2/5/2021
601 Union St., Suite 600 ALS JOB#: EV21010161
Seattle, WA 98101 ALS SAMPLE#: EV21010161-01
CLIENT CONTACT: Megan King DATE RECEIVED: 01/22/2021
CLIENT PROJECT: COEV-DEVEL COLLECTION DATE: 1/20/2021 3:10:00 PM
CLIENT SAMPLE ID MW-36-012021 WDOE ACCREDITATION: C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	02/04/2021	JMK

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	87.8	02/04/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

CERTIFICATE OF ANALYSIS

CLIENT:	Floyd Snider Inc. 601 Union St., Suite 600 Seattle, WA 98101	DATE:	2/5/2021
CLIENT CONTACT:	Megan King	ALS JOB#:	EV21010161
CLIENT PROJECT:	COEV-DEVEL	ALS SAMPLE#:	EV21010161-02
CLIENT SAMPLE ID	MW-21R-012121	DATE RECEIVED:	01/22/2021
		COLLECTION DATE:	1/21/2021 10:05:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	02/04/2021	JMK

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	86.1	02/04/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.

CERTIFICATE OF ANALYSIS

CLIENT:	Floyd Snider Inc. 601 Union St., Suite 600 Seattle, WA 98101	DATE:	2/5/2021
CLIENT CONTACT:	Megan King	ALS JOB#:	EV21010161
CLIENT PROJECT:	COEV-DEVEL	ALS SAMPLE#:	EV21010161-03
CLIENT SAMPLE ID	MW-31-012121	DATE RECEIVED:	01/22/2021
		COLLECTION DATE:	1/21/2021 5:00:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	2.0	1	UG/L	02/04/2021	JMK

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
Terphenyl-d14	EPA-8270	82.0	02/04/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Floyd Snider Inc.
601 Union St., Suite 600
Seattle, WA 98101

DATE: 2/5/2021
ALS SDG#: EV21010161
WDOE ACCREDITATION: C601

CLIENT CONTACT: Megan King
CLIENT PROJECT: COEV-DEVEL

LABORATORY BLANK RESULTS

MB-012521W - Batch 162302 - Water by EPA-8270

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Phenol	EPA-8270	U	UG/L	2.0	02/04/2021	JMK
Pyrene	EPA-8270	U	UG/L	2.0	02/04/2021	JMK
Bis(2-Ethylhexyl)Phthalate	EPA-8270	U	UG/L	2.0	02/04/2021	JMK

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Floyd Snider Inc.
601 Union St., Suite 600
Seattle, WA 98101

DATE: 2/5/2021
ALS SDG#: EV21010161
WDOE ACCREDITATION: C601

CLIENT CONTACT: Megan King
CLIENT PROJECT: COEV-DEVEL

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 162302 - Water by EPA-8270

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Phenol - BS	EPA-8270	26.5			5	84	02/05/2021	JMK
Phenol - BSD	EPA-8270	27.5	4		5	84	02/05/2021	JMK
Pyrene - BS	EPA-8270	93.1			18	136	02/05/2021	JMK
Pyrene - BSD	EPA-8270	92.6	1		18	136	02/05/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BS	EPA-8270	61.9			20	150	02/05/2021	JMK
Bis(2-Ethylhexyl)Phthalate - BSD	EPA-8270	68.1	10		20	150	02/05/2021	JMK

APPROVED BY

Laboratory Director

Attachment 3
Data Validation Summary

Data Validation Summary

Prepared by: Chell Black

Date: August 17, 2021

Project No.: COEv DEVEL 2014

Sample Event(s): 2021 Groundwater Sampling, January & July

Sample Delivery Group(s): OnSite 2101-210 and 2107-071
City of Everett 57730 and 58826
ALS EV21010161

Sample Media: Groundwater

A Compliance Screening (Stages 1 & 2A) data quality review was performed on semi-volatile organic compounds, dissolved metals, and chloride resulting from laboratory analysis. The analytical data were validated in accordance with the U.S. Environmental Protection Agency's (USEPA's) *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA 2020a) and/or *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA 2020b).

A total of 20 groundwater samples from 2 sampling events were submitted in 5 sample delivery groups. For the January 2021 event 9 samples were submitted to OnSite Environmental (OnSite) under sample delivery group (SDG) 2101-210 for chemical analysis by USEPA 8270E, 3 of these 9 samples were also submitted to ALS Environmental under SDG EV21010161 for chemical analysis by USEPA 8270, and the same 9 samples were additionally submitted to the City of Everett Laboratory under SDG 57730 for chemical analysis by USEPA 200.8 and SM4500-CL-E. For the July 2021 event 11 samples were submitted to OnSite under SDG 2107-071 for chemical analysis by USEPA 8270E, and the same 11 samples were additionally submitted to the City of Everett Laboratory under SDG 58826 for chemical analysis by USEPA 200.8 and SM4500-CL-E.

For all sample delivery groups and analysis methods, the analytical holding times were met, and the method blanks had no detections. The matrix spike (MS), matrix spike duplicate (MSD) and laboratory control sample recoveries and MS/MSD relative percent differences all met USEPA requirements.

No qualifiers were added to the analytical results based on the data quality review. Data are determined to be of acceptable quality for use as reported by the laboratory.

REFERENCES

- U.S. Environmental Protection Agency (USEPA). 2020a. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Prepared by the Office of Superfund Remediation and Technology Innovation. EPA-542-R-20-006/OLEM 9240.1-66. November.
- _____. 2020b. *National Functional Guidelines for Organic Superfund Methods Data Review*. Prepared by the Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-005/OLEM 9240.0-51. November.

Attachment 4
Historical Groundwater Monitoring
Analytical Results and Groundwater Elevations

Table 1
Performance Monitoring
Ground Water Analytical Results
Everett Landfill

Sample Location	Chemical Name	Unit	Dissolved Metals					Conventional	SVOC
			Arsenic	Iron	Manganese	Nickel	Zinc	Chloride	bis (2-Ethylhexyl) phthalate
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(ug/L)
		C.L.	25	23687	4040	10	76.6	230	10
MW-11R	NET	7/9/2001	6 U	9223	1430	5 U	8 U	11.8	1 U
MW-11R		10/3/2001	6 U	7945	1553	2 U	8 U	18.0	1 U
MW-11R		1/18/2002	6 U	9439	1910	2 U	10.45	11.6	4 U
MW-11R		4/10/2002	6 U	8742	2025	4 U	8 U	13.8	4 U
MW-11R		7/11/2002	4 U	32	440	4 U	8 U	13.3	4 U
MW-11R		10/9/2002	4 U	12400	2210	4 U	8 U	19.8	4 U
MW-11R		1/13/2003	4 U	3970	97	4.6	8	40.3	1 U
MW-11R		4/23/2003	4 U	11000	1810	4 U	8 U	20.2	1 U
MW-11R		10/9/2003	4 U	12800	1860	4 U	8 U	38.4	2.8 B
MW-11R		4/6/2004	2 U	10200	1260	2 U	8 U	8.8	1 U
MW-11R		7/15/2005	2 U	12500	1260	2 U	8 U	8.0	10 U
MW-11R		2/1/2006	4 U	11800	1240	2 U	8 U	14.0	10 U
MW-11R		7/10/2006	4 U	13500	1700	2 U	8 U	13.0	2 U
MW-11R		1/10/2007	4 U	12400	1560	4 U	8 U	18.3	2 U
MW-11RD		1/10/2007	4 U	12700	1600	4 U	8 U	18.3	2 U
MW-11R		7/17/2007	4 U	11800	1600	4 U	8 U	15.6	2 U
MW-11R		1/24/2008	2 U	11500	1490	4 U	8 U	12.6	10 U
MW-11R		6/18/2008	1.4 U	12300	1410	0.5 U	5 U	11.5	2 U
MW-11RD		6/18/2008	1.4 U	12400	1420	0.5 U	5 U	11.4	2 U
MW-11R		1/21/2009	1.7 U	12200	1430	0.5 U	5 U	10.7	2 U
MW-11R		7/10/2009	1.2	14100	1410	1 U	10 U	14.5	2 U
MW-11R		1/29/2010	1.9	10800	1300	1 U	10 U	12.9	2 U
MW-11R		7/28/2010	0.6 U	9860	992	0.5 U	5 U	7.4	2 U
MW-11R		1/20/2011	1.4 J	11300	1250	1 U	10 U	10.8	2 U
MW-11R		7/19/2011	1 U	7960	716	1 U	10 U	8.8	2 U
MW-11RD		7/19/2011	1 U	7980	720	1 U	10 U	8.8	2 U
MW-11R		1/23/2012	NS	NS	NS	NS	NS	NS	NS
MW-11R		7/11/2012	2.3	7600	535	0.5 U	5 U	4.1	2 U
MW-11R		1/22/2013	1.5 J	3320	294	1 U	10 U	3.5	2 U
MW-11R		7/18/2013	0.6 J	5800	444	0.5 U	5 U	3.9	2.6
MW-11R		1/31/2014	0.8 J	6260	446	0.5 U	5 U	8.3	2 U
MW-11R		7/25/2014	0.6 J	5920	400	0.5 U	5 U	4.9	2 U
MW-11R		2/9/2015	1 U	5630	433	1 U	10 U	3.1	2 U
MW-11R		7/29/2015	1 U	5600	509	1 U	10 U	3.4	2 U
MW-11R		1/19/2016	1 U	159000	20700	2.3 J	10 U	2320	2 U
MW-11R		7/18/2016	1 U	5880	640	1 U	10 U	18.2	2 U
MW-11R		1/26/2017	1 U	8250	1060	1 U	10 U	14.3	2 U
MW-11R		7/19/2017	1 U	180	131	1 U	10 U	4.6	2 U
MW-11R		2/9/2018	1 U	4430	877	1 U	10 U	7.6	2 U
MW-11R		7/31/2018	1 U	780	768	1 U	10.3 U	7.6	2 U
MW-11R		1/15/2019	1 U	3330	737	1 U	10 U	10.7	2 U
MW-11R		7/10/2019	1 U	320	559	1 U	10 U	8.5	2 U
MW-11R		2/3/2020	1 U	2500	631	1 U	10 U	7.1	2 U
MW-11R		7/21/2020	1 U	5200	428	1 U	10 U	7.7	2 U
MW-21	NET	7/3/2001	6 U	15	234	5 U	8 U	18.1	1 U
MW-21		10/2/2001	6 U	25	147	7.8	8 U	19.7	1 U
MW-21		1/18/2002	6 U	49	199	9.06	8 U	20.0	4 U
MW-21		4/9/2002	6 U	37	222	8.82	8 U	18.2	4 U
MW-21		7/9/2002	4 U	17	166	7.6	8 U	21.1	4 U
MW-21		10/9/2002	4 U	15	241	8.2	8 U	16.3	4 U
MW-21		1/14/2003	4 U	22	205	8.3	8 U	19.7	1 U
MW-21		4/22/2003	4 U	25	159	8.4	8 U	20.2	1 U
MW-21		10/9/2003	4 U	17	245	9.1	8 U	16.0	1 U
MW-21		4/5/2004	2 U	36	293	9.9	8 U	17.9	1 U
MW-21		7/14/2005	2 U	22	189	8.6	8 U	18.0	10 U
MW-21		1/31/2006	4 U	49	132	7.9	9	18.0	10 U
MW-21R	NET	1/21/2009	22.3	2470	1210	2.3	8 U	13.7	2 U
MW-21R		7/9/2009	31	7950	1970	1 U	10 U	9.1	2 U
MW-21RD		7/9/2009	30.4	7910	1940	1 U	10 U	9.4	2 U
MW-21R		1/28/2010	16.9	7510	1410	1 U	10 U	12.6	2 U
MW-21R		7/28/2010	23.7	8580	1660	0.5 U	5 U	9.1	2 U
MW-21R		1/20/2011	24.2	11400	1720	1 U	10 U	10.0	2 U
MW-21R		7/19/2011	25	11700	1830	1 U	10 U	8.5	2 U
MW-21R		1/23/2012	24.6	11400	2080	1 U	10 U	8.4	2 U
MW-21R		7/18/2012	6.8	8820	1600	0.6 J	5 U	11.1	2 U
MW-21R		1/22/2013	1.0 J	290	50	1 U	10 U	10.4	2 U
MW-21R		7/18/2013	0.7 J	98	121	0.7 J	5 U	12.2	2 U
MW-21R		2/1/2014	20.6	10300	1860	0.5 U	5 U	7.4	2 U
MW-21R		7/25/2014	15.0	9220	1280	0.5 U	5 U	9.6	2 U
MW-21R		2/10/2015	21	13700	1720	1 U	10 U	10.2	2 U
MW-21RD		2/10/2015	24.2	14000	1730	1 U	10 U	10.5	16
MW-21R		7/30/2015	1.8 J	42 J	3 J	1 U	10 U	10.9	2 U
MW-21R		1/19/2016	15.1	13500	1330	1 U	10 U	16.2	2 U
MW-21R		7/18/2016	1.5 J	100 J	19.3	1 U	10 U	13.3	2 U
MW-21R		1/26/2017	14.8	13900	1760	1 U	10 U	16.3	2 U
MW-21R		7/19/2017	1.5 J	48 J	4.5	1 U	10 U	14.0	2 U
MW-21R		2/9/2018	15.7	12100	1670	1 U	10 U	18.9	2.1
MW-21RD		2/9/2018	17.3	13600	1770	1 U	10 U	18.6	2.2
MW-21R		7/31/2018	1.4 J	50 J	13.1	1 U	10.3 U	17.0	2 U
MW-21R		1/15/2019	1.0 J	1950	1440	1 U	10 U	16.0	2 U
MW-21R		7/10/2019	1 U	67 J	9	1 U	10 U	12.2	2 U
MW-21R		2/3/2020	9.6	10800	1780	1 U	10 U	9.6	2 U
MW-21R		7/21/2020	1 U	40 U	319	1 U	10 U	11.2	2 U
MW-28	NET	7/6/2001	8	7972	247	5 U	8 U	4.5	1 U
MW-28		10/5/2001	8	5414	161	2 U	8 U	4.8	1 U
MW-28		1/23/2002	8.52	9332	273	2 U	8 U	4.8	4 U
MW-28		4/15/2002	8.18	7644	239	4 U	8 U	4.7	4 U
MW-28		7/9/2002	13	8220	231	4 U	8 U	5.3	4 U
MW-28D		7/9/2002	12	8260	233	4 U	8 U	5.3	4 U
MW-28		10/14/2002	8	7490	217	4 U	8 U	5.1	4 U
MW-28		1/16/2003	8	9190	257	4 U	8 U	5.4	1 U
MW-28		4/24/2003	8	7350	239	4 U	8 U	5.0	1 U
MW-28		10/14/2003	8	8020	225	4 U	8 U	5.2	5.6
MW-28		4/12/2004	7	7450	248	2 U	8 U	4.9	1 U
MW-28		7/19/2005	8	8750	265	2 U	8 U	5.0	10 U
MW-28		2/3/2006	8	8950	244	2 U	8 U	5.0	10 U
MW-28		7/11/2006	8	6440	200	2 U	10	5.2	2 U
MW-28		1/10/2007	8	8960	250	4 U	8 U	5.3	2 U
MW-28		7/18/2007	7	6110	240	4 U	8 U	5.6	2 U
MW-28		1/29/2008	9	7300	230	4 U	8 U	5.2	10 U
MW-28D		1/29/2008	7	6420	220	4 U	8 U	5.1	10 U
MW-28		6/19/2008	10.2	9000	236	0.5 U	5 U	4.9	2 U

Table 1
Performance Monitoring
Ground Water Analytical Results
Everett Landfill

Sample Location	Sample Type	Chemical Name Unit C.L. Date	Dissolved Metals					Conventional	SVOC
			Arsenic	Iron	Manganese	Nickel	Zinc	Chloride	bis (2-Ethylhexyl) phthalate
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(ug/L)
			25	23687	4040	10	76.6	230	10
MW-29	NET	7/10/2001	6 U	3930	378	5 U	8 U	9.8	1 U
MW-29		10/3/2001	6 U	288	186	2 U	8 U	10.1	1 U
MW-29		1/24/2002	6 U	4472	376	2 U	8 U	10.1	4 U
MW-29		4/12/2002	6 U	4593	372	4 U	8 U	9.7	4 U
MW-29		7/10/2002	4 U	5240	361	4 U	8 U	10.4	4 U
MW-29		10/11/2002	4 U	4580	367	4 U	8 U	10.7	4 U
MW-29		1/17/2003	4 U	4480	346	4 U	8 U	11.3	1.1
MW-29		4/30/2003	4 U	4800	356	4 U	8 U	10.4	2
MW-29		10/13/2003	4 U	4670	373	4 U	8 U	10.4	1 U
MW-29		4/9/2004	2 U	5180	400	2 U	8 U	11.6	1 U
MW-29		7/18/2005	2 U	4310	394	2 U	8 U	10.0	10 U
MW-29		2/3/2006	5	4030	319	2 U	8 U	11.0	10 U
MW-29		7/1/2006	4 U	3320	360	2 U	8	10.4	2 U
MW-29		1/12/2007	4 U	4040	350	4 U	8 U	11.0	2 U
MW-29		7/18/2007	4 U	4270	380	4 U	8 U	11.4	2 U
MW-29		1/29/2008	2 U	4140	370	4 U	8 U	10.5	10 U
MW-29		6/18/2008	0.5 U	4650	352	0.5 U	5 U	10.7	2 U
MW-29		1/22/2009	0.5 U	7210	361	0.5 U	5 U	11.4	2 U
MW-29		7/10/2009	1 U	7010	380	1.3	10 U	10.7	2 U
MW-29		1/28/2010	1 U	4550	355	1 U	10 U	9.7	2 U
MW-29		7/30/2010	0.6 J	4270	326	0.5 U	5 U	9.1	2 U
MW-29		1/21/2011	1 U	5520	358	1 U	10 U	10.0	2 U
MW-29		7/18/2011	1 U	4420	341	1 U	10 U	9.3	2.4
MW-29		1/23/2012	NS	NS	NS	NS	NS	NS	NS
MW-29		7/18/2012	NS	NS	NS	NS	NS	NS	NS
MW-29		1/22/2013	NS	NS	NS	NS	NS	NS	NS
MW-29R		7/29/2015	2.6 J	1800	473	3.6 J	10 U	108	7.7
MW-29R		1/19/2016	1 U	9360	604	1 U	10 U	11.7	2 U
MW-29R		7/14/2016	1 U	7500	493	1 U	10 U	28.4	2 U
MW-29R		1/26/2017	1 U	10200	675	1 U	10 U	13.4	2 U
MW-29R		7/20/2017	1 U	9630	643	1 U	10 U	13.7	2 U
MW-29R		2/9/2018	1 U	9210	604	1 U	10 U	14.1	2 U
MW-29R		8/1/2018	1 U	6450	557	1 U	10.3 U	14.9	2 U
MW-29R		1/29/2019	1 U	160	500	1 U	10 U	15.8	2 U
MW-29R		7/10/2019	1 U	4110	527	1 U	10 U	13.3	2 U
MW-29R		2/3/2020	1 U	7790	424	1 U	10 U	11.4	2 U
MW-29RD		2/3/2020	1 U	7480	430	1 U	10 U	11.3	2 U
MW-29R		7/22/2020	1 U	2650	283	1 U	10 U	10.6	2 U
MW-30	NET	7/5/2001	8	4653	573.75	5 U	8 U	27.1	1 U
MW-30		10/3/2001	6 U	254	186	2 U	8 U	26.5	1 U
MW-30		1/25/2002	9.34	6578	548.08	2 U	8 U	23.7	4 U
MW-30		4/11/2002	11.14	6253	506.64	4 U	8 U	23.1	4 U
MW-30		7/10/2002	4 U	222	324	4 U	8 U	23.9	4 U
MW-30		10/10/2002	11	5810	484	4 U	8 U	19.4	4 U
MW-30		1/16/2003	11	6240	505	4 U	8 U	19.6	1 U
MW-30		4/29/2003	9	5850	500	4 U	8 U	19.7	1 U
MW-30		10/13/2003	10	5380	478	4 U	8 U	17.0	1 U
MW-30		4/8/2004	11	5160	495	2 U	8 U	18.4	1 U
MW-30		7/14/2005	9	5070	480	2 U	8 U	21.0	10 U
MW-30		2/3/2006	13	5290	460	2 U	8 U	20.0	10 U
MW-30		7/1/2006	4 U	4070	450	2 U	8 U	17.4	2 U
MW-30		1/12/2007	7	5780	490	4 U	8 U	16.8	2 U
MW-30		7/18/2007	5	3690	400	4 U	8 U	14.6	2 U
MW-30		1/29/2008	9	5240	480	4 U	8 U	13.2	10 U
MW-30		6/18/2008	0.7 U	47 J	116	0.5 U	5 U	16.8	2 U
MW-30		1/22/2009	5.6	4130	475	0.5 U	5 U	23.5	2 U
MW-30		7/10/2009	6.6	3630	346	1 U	10 U	12.9	2 U
MW-30		1/28/2010	7.2	4310	421	1 U	10 U	15.3	2 U
MW-30		7/30/2010	7	5250	406	0.5 U	5 U	15.7	2 U
MW-30		1/21/2011	8.5	5420	428	1 U	10 U	11.9	2 U
MW-30		7/18/2011	8.2	4940	417	1 U	10 U	12.3	2 U
MW-30		1/24/2012	7.2	5000	445	1 U	10 U	12.8	2 U
MW-30		7/18/2012	1.7 J	2340	691	0.5 U	5 U	13.5	2 U
MW-30D		7/18/2012	1.8 J	2380	688	0.5 U	5 U	13.0	2 U
MW-30		1/22/2013	6.7	4730	424	1 U	10 U	13.8	2 U
MW-30D		1/22/2013	6.8	4710	423	1 U	10 U	12.9	2 U
MW-30		7/18/2013	4.3	3530	386	0.5 U	5 U	14.7	2.4
MW-30D		7/18/2013	4.8	3820	394	0.5 U	5 U	14.9	2 U
MW-30		1/31/2014	8.2	6300	428	0.5 U	5 U	11.1	2 U
MW-30		7/28/2014	1.2 J	790	116	0.5 U	5 U	11.0	2 U
MW-30		2/9/2015	b	7110	447	1 U	10 U	10.7	2 U
MW-30		7/29/2015	1 U	320	25	1 U	10 U	9.8	2 U
MW-30		1/19/2016	4.3	6780	465	1 U	10 U	33.6	2 U
MW-30		7/14/2016	8	8320	559	1 U	10 U	14.2	2 U
MW-30		1/26/2017	8.6	7290	446	1 U	72	11.2	2 U
MW-30		7/20/2017	1 U	150 J	14.4	1 U	10 U	11.2	2 U
MW-30		2/9/2018	9	8830	509	1 U	10 U	11.1	2 U
MW-30		8/1/2018	7.6	8690	482	1 U	10.3 U	12.8	2 U
MW-30		1/15/2019	7.2	8490	495	1 U	10 U	13.1	2 U
MW-30		7/10/2019	1.8 J	1780	174	1 U	10 U	9.0	2 U
MW-30		2/3/2020	2.5 J	6420	428	1 U	10 U	11.3	2 U
MW-30		7/22/2020	1 U	970	84	1 U	10 U	10.3	2 U

Table 1
Performance Monitoring
Ground Water Analytical Results
Everett Landfill

Sample Location	Sample Type	Chemical Name Unit C.L. Date	Dissolved Metals					Conventional	SVOC
			Arsenic	Iron	Manganese	Nickel	Zinc	Chloride	bis (2-Ethylhexyl) phthalate
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(ug/L)
			25	23687	4040	10	76.6	230	10
MW-31	NET	7/5/2001	6 U	43672	1261.8	5 U	8 U	149.8	1 U
MW-31		10/3/2001	6 U	29424	866.99	3.9	8 U	150.0	1 U
MW-31		1/22/2002	6 U	39542	1206.2	5.83	8 U	137.5	6
MW-31		4/10/2002	6 U	38227	1178	4 U	8 U	136.9	4 U
MW-31		7/1/2002	4 U	41700	1190	4 U	8 U	132.0	4 U
MW-31		10/10/2002	4 U	42000	1190	4.4	8 U	150.0	4 U
MW-31D		10/10/2002	4 U	41800	1180	4 U	8 U	151.0	4 U
MW-31		1/16/2003	4 U	38400	1150	4.5	8 U	13.5	1 U
MW-31		4/29/2003	4 U	38800	1130	4 U	8 U	131.0	320
MW-31		10/13/2003	4 U	41300	1230	4.4	8 U	147.0	1 U
MW-31		4/8/2004	3	35600	1220	4.7	8 U	120.0	1.5 B
MW-31		7/14/2005	2 U	33400	1150	3.9	8 U	127.0	10 U
MW-31		2/3/2006	4 U	31800	1150	2.9	8 U	130.0	10 U
MW-31		7/12/2006	4 U	36100	1160	3	8 U	132.0	2 U
MW-31		1/12/2007	4 U	34300	1170	4	16	134.0	2 U
MW-31		7/17/2007	4 U	37100	1180	7	8 U	149.0	2 U
MW-31		1/29/2008	2 U	32200	1160	4 U	8 U	138.0	10 U
MW-31		6/18/2008	1.8 U	39500	1160	3.2	5 U	132.0	2 U
MW-31		1/22/2009	1.5 U	32400	1080	3	5 U	149.7	2 U
MW-31		7/10/2009	1.3	40300	1170	3.2	10 U	148.0	2 U
MW-31		1/28/2010	1.3	31200	1130	3.2	10 U	147.0	2 U
MW-31		7/30/2010	1.4 J	38600	1150	3	5 U	143.0	2 U
MW-31D		7/30/2010	1.3 J	37600	1110	3.2	5 U	144.0	2 U
MW-31		1/21/2011	1.4 J	36500	1160	3 J	10 U	157.0	2 U
MW-31D		1/21/2011	1.4 J	36300	1160	3 J	10 U	161.0	2 U
MW-31		7/18/2011	1.5 J	39600	1210	3.9 J	10 U	132.0	2 U
MW-31		1/24/2012	1.4 J	34500	1190	3.4 J	10 U	143.0	2 U
MW-31		7/18/2012	1.5 J	39700	1150	3.2	5 U	138.0	2 U
MW-31		1/22/2013	1.6 J	42100	1210	3.5 J	10 U	134.0	2.7
MW-31		7/19/2013	1.5 J	39900	1180	3.1	7 J	149.0	3
MW-31		1/31/2014	1.5 J	44300	1220	3.3	5 U	139.0	2 U
MW-31		7/28/2014	1.6 J	48100	1170	3.3	5 U	150.0	2 U
MW-31		2/9/2015	2.5 J	70400	1180	3.8 J	10 U	144.0	2 U
MW-31		7/29/2015	2 J	59600	1220	3.1 J	10 U	148.0	2 U
MW-31D		7/29/2015	2 J	58800	1220	3.7 J	10 U	149.0	2 U
MW-31		1/19/2016	1.4 J	40400	1010	2.7 J	10 U	148.0	2 U
MW-31D		1/19/2016	1.5 J	40600	1010	2.6 J	10 U	148.0	2 U
MW-31		7/14/2016	1.9 J	58300	1250	3.6 J	10 U	36.8	2 U
MW-31D		7/14/2016	2 J	58500	1260	3.4 J	10 U	142.0	2 U
MW-31		1/26/2017	1.7 J	48300	1190	3.4 J	10 U	141.0	2 U
MW-31		7/20/2017	1.9 J	47500	1240	3.5 J	10 U	140.0	2 U
MW-31D		7/20/2017	1.9 J	48300	1250	3.5 J	10 U	130.0	2 U
MW-31		2/9/2018	2.3 J	52700	1260	3.6 J	10 U	137.0	2.8
MW-31		8/1/2018	1.5 J	42400	1170	3.1 J	10.3 U	133.0	2 U
MW-31		1/15/2019	1.9 J	45900	1140	3.3 J	10 U	133.0	2 U
MW-31		7/10/2019	1.6 J	42200	1210	3.1 J	10 U	136.0	2 U
MW-31		2/3/2020	1.6 J	43600	1190	2.8 J	10 U	136.0	2 U
MW-31		7/22/2020	1.7 J	46400	1250	3.1 J	10 U	144.0	2 U
MW-31D		7/22/2020	1.6 J	45200	1240	3.1 J	10 U	143.0	2 U
MW-33	BG	7/5/2001	6 U	14 U	54	5 U	8 U	20.4	1 U
MW-33		10/2/2001	NS	NS	NS	NS	NS	NS	NS
MW-33		1/17/2002	6 U	14 U	27	3.67	42.2	8.7	4 U
MW-33		4/9/2002	6 U	14 U	20	4.36	32.12	8.3	4 U
MW-33		7/8/2002	4 U	14 U	16	4 U	462.6	5.3	4 U
MW-33		10/8/2002	4 U	14 U	3	4 U	23	7.9	4 U
MW-33		1/21/2003	4 U	14 U	1	4 U	26	7.8	1.1
MW-33		4/22/2003	4 U	14 U	1 U	4 U	48	7.2	1 U
MW-33		10/7/2003	4 U	14 U	1 U	4 U	19	8.5	1 U
MW-33		4/5/2004	2 U	14 U	1 U	3	15	8.3	1 U
MW-33		7/18/2005	2 U	14 U	1 U	3	19	12.0	10 U
MW-33		1/31/2006	4 U	14 U	1 U	2.7	18	8.0	10 U
MW-33		7/10/2006	4 U	14 U	1 U	3	11	6.6	2 U
MW-33		1/12/2007	4 U	14 U	b	6	33	7.2	2 U
MW-33		7/20/2007	4 U	14 U	1	4 U	70	6.2	2 U
MW-33		1/30/2008	2 U	14 U	1 U	4 U	68	5.3	10 U
MW-33		6/19/2008	0.6 U	30 U	2 U	3.2 U	29	5.1	2 U
MW-35	BG	7/5/2001	6 U	14 U	109	5 U	8 U	46.3	1 U
MW-35		10/2/2001	6 U	14 U	19	2.3	48.85	47.1	1 U
MW-35		1/17/2002	6 U	14 U	6	2.97	8 U	43.1	4 U
MW-35		4/9/2002	6 U	47	2	4 U	8 U	42.5	4 U
MW-35		7/8/2002	4 U	14 U	1 U	4 U	8 U	42.5	4 U
MW-35		10/8/2002	4 U	14 U	1 U	4 U	8 U	43.8	4 U
MW-35		1/14/2003	4 U	14 U	1 U	4 U	8 U	48.6	1 U
MW-35		4/22/2003	4 U	14 U	1 U	4 U	8 U	44.2	1 U
MW-35		10/7/2003	4 U	25	1 U	4 U	8 U	45.0	1 U
MW-35		4/5/2004	2 U	14 U	1 U	2 U	8 U	45.0	1 U
MW-35		7/18/2005	2 U	14 U	1 U	2 U	8 U	44.0	10 U
MW-35		2/1/2006	4 U	14 U	1 U	2 U	8 U	42.0	10 U
MW-36	POC	7/6/2001	14.7	12552	728	5 U	8 U	69.3	1 U
MW-36		10/8/2001	9	12067	543	2 U	8 U	59.1	1 U
MW-36		1/22/2002	8.46	15896	648	2.85	8 U	41.6	4 U
MW-36		4/10/2002	6 U	24681	663	4 U	8 U	96.5	4 U
MW-36		7/1/2002	10	15300	670	4 U	8 U	44.5	4 U
MW-36		10/9/2002	9	16500	687	4 U	8 U	44.0	4 U
MW-36		1/15/2003	8	17300	705	4 U	8 U	40.4	1 U
MW-36		4/23/2003	6	14700	693	4 U	8 U	41.0	1 U
MW-36		10/9/2003	7	16400	728	4 U	8 U	36.8	2.9 B
MW-36		4/6/2004	9	17100	778	2 U	8 U	52.5	1 U
MW-36		7/15/2005	8	18000	852	2 U	8 U	38.9	10 U
MW-36		2/1/2006	4 U	255	26.1	2 U	43	2.2	10 U
MW-36		7/13/2006	14	18200	850	2	9	35.5	2 U
MW-36		1/12/2007	9	17600	850	4 U	8 U	29.1	2 U
MW-36		7/20/2007	9	18300	870	4 U	8 U	34.4	2 U
MW-36		1/25/2008	6	11600	890	4 U	26	28.3	10 U
MW-36		6/19/2008	5	15000	690	1.1 U	9 U	28.6	2 U
MW-36		1/22/2009	1.7 U	1000	390	2.7	29	8.8	2 U
MW-36D		1/22/2009	0.9 U	420	300	2.4	28	12.0	2 U
MW-36		7/9/2009	3.1	18100	742	1 U	10 U	29.8	2 U

Table 1
Performance Monitoring
Ground Water Analytical Results
Everett Landfill

Sample Location	Sample Type	Chemical Name Unit C.L. Date	Dissolved Metals					Conventional	SVOC
			Arsenic	Iron	Manganese	Nickel	Zinc	Chloride	bis (2-Ethylhexyl) phthalate
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(ug/L)
			25	23687	4040	10	76.6	230	10
MW-36		1/29/2010	3.8	6820	759	2.3	36	23.2	2 U
MW-36		7/29/2010	4.1	15800	685	0.9 J	5 U	40.3	2 U
MW-36		1/20/2011	4.5	16400	685	1 U	10 U	32.3	2 U
MW-36		7/19/2011	4.7	16100	698	1.1 J	10 U	32.6	2 U
MW-36		1/23/2012	5.6	16000	724	1 U	10 U	27.5	2 U
MW-36D		1/23/2012	5.6	16000	728	1 U	10 U	28.5	2 U
MW-36		7/18/2012	4.8	14800	677	0.8 J	5 U	29.4	2 U
MW-36		1/22/2013	4.4	14200	850	2.5 J	22 J	25.7	2 U
MW-36		7/18/2013	6.3	15800	745	0.9 J	6 J	26.0	2 U
MW-36		1/31/2014	5.6	14800	757	0.8 J	5 U	22.4	2 U
MW-36		7/25/2014	5.4	12300	650	0.9 J	5 U	33.0	2 U
MW-36		2/10/2015	6.6	18700	765	1 U	10 U	27.0	2 U
MW-36		7/29/2015	1 U	40 U	1 U	1 U	10 U	210.0	2 U
MW-36		1/22/2016	4.6	24900	1350	2.7 J	10 U	253.0	2 U
MW-36		7/14/2016	5.1	580	131	3.3 J	10 U	86.4	2 U
MW-36		2/1/2017	1 U	240	94.2	2.2 J	10 U	111	2 U, H
MW-36		7/20/2017	2.2 J	680	351	2 J	10 U	69.8	2 U
MW-36		2/9/2018	2.2 J	10500	640	1 U	10 U	131	2 U
MW-36		8/1/2018	1.4 J	3960	427	1.3 J	10.3 U	91.4	2 U
MW-36		1/29/2019	1.1 J	4740	277	1 U	10 U	81	2 U
MW-36		7/1/2019	3.6 J	7450	334	1 U	10 U	49.7	2 U
MW-36		2/4/2020	2.1 J	190	170	2.2 J	10 U	21.6	2 U
MW-36		7/23/2020	7.1	4350	378	2 J	10 U	35.7	2 U
MW-37	POC	7/6/2001	6 U	22907	700	5 U	8 U		1 U
MW-37		10/8/2001	6 U	20327	599	2 U	8 U	87.0	1 U
MW-37		1/22/2002	6 U	22525	678	2.87	8.1	92.3	4 U
MW-37		4/10/2002	9.4	16182	665	4 U	8 U	48.3	4 U
MW-37		7/1/2002	4 U	25400	688	4 U	8 U	92.3	4 U
MW-37		10/9/2002	4 U	25500	664	4 U	11	112.0	4 U
MW-37	not sampled 2006-2015 due to saline river water biasing results	1/15/2003	4 U	26800	694	4 U	8 U	114.0	1 U
MW-37		4/23/2003	4 U	23100	598	4 U	8 U	117.0	1 U
MW-37		10/8/2003	4 U	22700	651	4 U	8 U	190.0	1 U
MW-37		4/6/2004	3	25100	724	2 U	8 U	157.0	1 U
MW-37		7/15/2005	2 U	26500	807	2 U	8 U	248.0	10 U
MW-37		2/1/2006	4 U	29900	956	2 U	8 U	461.0	10 U
MW-37		7/13/2006	4 U	26500	840	2 U	61	257.0	2 U
MW-37D		7/13/2006	4 U	26800	840	2 U	8 U	298.0	2 U
MW-37		7/29/2015	1.2 J	2710	491	1.3 J	10 U	31.0	2 U
MW-37		1/22/2016	1 U	33300	894	1.4 J	23 J	155.0	2 U
MW-37		7/14/2016	1 U	28200	720	1 U	10 U	251.0	2 U
MW-37		2/1/2017	1 U	35100	1230	1 U	10 U	1690	2 U, H
MW-37D	resample	2/1/2017	1 U	34400	1200	1 U	10 U	1680	2 U, H
MW-37		4/5/2017						840	
MW-37		7/20/2017	1 U	18900	830	1 U	10 U	1790	2 U
MW-37		2/9/2018	1 U	9180	494	1 U	10 U	1590	2.5
MW-37		8/2/2018	1 U	11100	509	1 U	10.3 U	1360	2 U
MW-37		1/29/2019	1 U	12800	419	1 U	10 U	465	2 U
MW-37		7/1/2019	1 U	20600	873	1 U	10 U	884	2 U
MW-37D		7/1/2019	1 U	20600	870	1 U	10 U	880	2 U
MW-37		2/4/2020	1 U	15100	733	1 U	10 U	480	2 U
MW-37		7/23/2020	1 U	17900	1350	1 U	10 U	995	2 U
MW-38	POC	7/6/2001	6 U	3022	384	5 U	8 U	17.1	1 U
MW-38		10/8/2001	6 U	4066	287	2 U	8 U	20.6	1 U
MW-38		1/23/2002	6 U	3653	272	2 U	8.3	15.4	4 U
MW-38		4/12/2002	6 U	3665	263	4 U	8 U	15.4	5.4
MW-38		7/1/2002	4 U	3480	262	4 U	8 U	19.4	4 U
MW-38		10/15/2002	4 U	2290	234	4 U	8 U	19.2	4 U
MW-38		1/15/2003	4 U	4200	284	4 U	8 U	20.9	1 U
MW-38		4/23/2003	4 U	1560	219	4 U	8 U	16.2	1 U
MW-38		10/8/2003	4 U	4070	296	4 U	8 U	23.8	1 U
MW-38		4/6/2004	2 U	3690	279	2 U	8 U	22.1	1 U
MW-38		7/15/2005	2 U	4850	331	2 U	8 U	27.0	10 U
MW-38		2/2/2006	4 U	4130	289	2 U	8 U	24.0	10 U
MW-38		7/10/2006	4 U	4230	290	2 U	8 U	24.4	2 U
MW-38		1/10/2007	4 U	4120	300	4 U	8 U	26.4	2 U
MW-38		7/20/2007	4 U	1680	260	4 U	8 U	22.5	2 U
MW-38		1/25/2008	2 U	2470	230	4 U	31	16.5	10 U
MW-38		6/19/2008	0.5 U	6240	325	0.5 U	5 U	39.2	2 U
MW-38		1/22/2009	0.5 U	420	39	1.2 U	600	8.9	2 U
MW-38		2/26/2009					36		
MW-38		7/9/2009	1 U	3220	259	1 U	52	22.4	2 U
MW-38		1/29/2010	1 U	3300	267	1 U	10 U	16.2	2 U
MW-38		7/29/2010	0.5 U	3480	253	0.5 U	5 U	17.1	2 U
MW-38		1/20/2011	1 U	3610	265	1 U	10 U	13.9	2 U
MW-38		7/18/2011	1 U	4020	272	1 U	10 U	22.4	2 U
MW-38		1/24/2012	1 U	4000	301	1 U	10 U	17.1	2 U
MW-38		7/18/2012	0.5 U	71 J	107	0.5 U	17 J	16.2	2 U
MW-38		1/22/2013	1 U	3530	287	1 U	10 U	12.8	2 U
MW-38		7/19/2013	0.5 U	4190	288	0.5 U	7 J	30.4	2.1
MW-38		2/6/2014	0.5 U	3420	264	0.5 U	5 U	12.8	2 U
MW-38		7/28/2014	0.5 U	550	136	0.5 U	7 J	15.0	2 U
MW-38		2/9/2015	1 U	2720	236	2 J	11 J	10.5	2 U
MW-38		7/29/2015	1 U	40 U	213	1 U	14 J	11.1	2 U
MW-38		1/22/2016	1 U	3400	275	1 U	10 U	9.1	2 U
MW-38		7/14/2016	1 U	5460	502	1 U	10 U	86.4	2 U
MW-38		2/1/2017	1 U	3490	306	1 U	10 U	17.0	2 H
MW-38		7/20/2017	1 U	3580	300	1 U	10 U	17.7	2 U
MW-38		2/9/2018	1 U	2810	295	1 U	10 U	11.0	2 U
MW-38		8/2/2018	1 U	1230	210	1 U	10.3 U	12.8	2 U
MW-38D		8/2/2018	1 U	970	202	1 U	10.3 U	12.9	2 U
MW-38		1/29/2019	1 U	2430	271	1 U	10 U	12.4	2 U
MW-38D		1/29/2019	1 U	2400	274	1 U	10 U	12.2	2 U
MW-38		7/1/2019	1 U	800	169	1 U	10 U	12.1	2 U
MW-38		2/5/2020	1 U	40 U	27.5	1 U	10 U	10.5	2 U
MW-38		7/23/2020	1 U	160	257	1 U	10 U	6.3	2 U

Table 1
Performance Monitoring
Ground Water Analytical Results
Everett Landfill

Sample Location	Sample Type	Chemical Name Unit C.L. Date	Dissolved Metals					Conventional	SVOC
			Arsenic	Iron	Manganese	Nickel	Zinc	Chloride	bis (2-Ethylhexyl) phthalate
			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(ug/L)
			25	23687	4040	10	76.6	230	10
MW-39	POC	7/6/2001	6 U	420	206	5 U	30	49.8	1 U
MW-39		10/8/2001	6 U	916	236	2 U	8 U	45.7	1 U
MW-39		1/23/2002	6 U	1365	398	2 U	8 U	7.9	6.5
MW-39		4/12/2002	6 U	1638	384	4 U	8 U	6.8	7.2
MW-39		7/9/2002	8	2520	430	4 U	12	6.2	4.8
MW-39		10/15/2002	4	2740	398	4 U	8 U	5.6	4 U
MW-39		1/15/2003	4 U	2870	353	4 U	8 U	6.5	1 U
MW-39		4/24/2003	4 U	2080	363	4 U	8 U	5.1	7.4
MW-39		10/8/2003	4 U	3690	366	4 U	8 U	5.6	1 U
MW-39		4/6/2004	4	3730	323	2 U	8 U	5.3	1 U
MW-39		7/15/2005	2 U	18.2	300	2 U	16	6.0	10 U
MW-39		2/2/2006	6	3780	269	2 U	8 U	5.0	10 U
MW-39		7/10/2006	4 U	990	220	2 U	17	4.3	2 U
MW-39		1/10/2007	4 U	6980	280	4 U	8 U	5.4	2 U
MW-39		7/19/2007	4 U	5310	270	4 U	8 U	5.7	2 U
MW-39D		7/19/2007	4 U	5490	280	4 U	8 U	5.9	2 U
MW-39		1/24/2008	3	5560	260	4 U	8 U	5.8	10 U
MW-39		6/18/2008	b	4320	282	0.5 U	5 U	5.3	2 U
MW-39		1/22/2009	1.5 U	1950	252	0.5 U	9 U	6.1	2 U
MW-39		7/9/2009	1.1	1960	154	1 U	10 U	5.9	2 U
MW-39		1/29/2010	2.1	4930	239	1 U	10 U	6.3	2 U
MW-39D		1/29/2010	2.2	5030	240	1 U	10 U	6.2	2 U
MW-39		7/29/2010	1.5 J	2990	224	0.5 U	5 U	6.1	2 U
MW-39		1/20/2011	2.5 J	5750	249	1 U	10 U	6.3	2 U
MW-39		7/18/2011	1.6 J	3210	212	1 U	10 U	5.6	2 U
MW-39		1/24/2012	2.6 J	6150	246	1 U	10 U	5.4	2 U
MW-39		7/18/2012	2.1	5430	234	0.5 U	5 U	5.9	2 U
MW-39		1/22/2013	NS	NS	NS	NS	NS	NS	NS
MW-39R		7/29/2015	2 J	130 J	229	2 J	10 U	5.0	8.1
MW-39R		1/19/2016	2.4 J	650	255	2.1 J	30 J	5.5	2 U
MW-39R		7/15/2016	1 U	4040	231	1 U	10 U	7.1	2 U
MW-39R		1/26/2017	1 U	4270	272	1 U	10 U	7.6	2 U
MW-39R		7/20/2017	1 U	40 U	10.1	1.4 J	10 U	1.4	2 U
MW-39R		2/9/2018	1 U	4460	249	1 U	10 U	7.9	2 U
MW-39R		7/31/2018	1 U	4600	239	1 U	10.3 U	7.6	2 U
MW-39R		1/29/2019	1 U	40 U	8.2	1.0 J	10 U	3.0	2 U
MW-39R		7/10/2019	1 U	2700	227	1 U	10 U	4.5	2 U
MW-39R		2/3/2020	1 U	190	170	2.2 J	10 U	21.6	2 U
MW-39R		7/22/2020	1 U	40 U	130	1 U	10 U	6.3	2 U
MW-40		7/10/2006	4 U	20100	450	2 U	8 U		
MW-40		1/9/2007	4 U	6060	940	4 U	8 U	225.0	2 U
MW-40		7/19/2007	4 U	4080	730	4 U	8 U	24.1	2 U
MW-40		1/30/2008	2 U	12200	1190	4 U	8 U	166.0	10 U
MW-41		7/10/2006	4 U	5360	970	2 U	8 U		
MW-41		1/9/2007	4 U	5780	1030	4 U	8 U	1610.0	2 U
MW-41		7/19/2007	4 U	4710	990	4 U	8 U	1880.0	2 U
MW-41		1/30/2008	2 U	1090	2710	4 U	40 U	6120.0	10 U
MW-42		7/10/2006	24	7290	430	2 U	8 U	8.4	2 U
MW-42D		7/15/2006	23	7280.0	420	0 U	8 U	4.0	2 U
MW-42		1/9/2007	22	7300.0	410	4 U	8 U	3.8	2 U
MW-42		7/19/2007	21	7040.0	390	4 U	8 U	4.5	2 U
MW-42		1/30/2008	22	7090.0	390	4 U	8 U	3.9	10 U

NOTES:

- Bold** Analyte detected
- Highlighted** Analyte exceeds cleanup level
- NET = network well for Performance and Confirmation Monitoring
- BG = upgradient background well
- POC = deep aquifer point of compliance monitoring well
- C.L. = cleanup level
- ug/L = micrograms per liter
- mg/L = milligrams per liter
- U = not detected at reporting limit shown
- J = estimated concentration
- NS = Not sampled
- BKG = background (established after 3 year evaluation monitoring period)
- B = likely laboratory contamination, analyte detected in field blank
- D = duplicate sample collected
- H = Sample analyzed outside of holding time

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation	
MW-05	S, INT	7/2/2001	13.57	11.71	
MW-05		10/1/2001	12.44	12.84	
MW-05		1/16/2002	10.75	14.53	
MW-05		4/8/2002	10.97	14.31	
MW-05		7/3/2002	14.15	11.13	
MW-05		10/7/2002	14.63	10.65	
MW-05		1/16/2003	13.32	11.96	
MW-05		4/21/2003	10.97	14.31	
MW-05		10/6/2003	15.12	10.16	
MW-05		4/2/2004	14.17	11.11	
Decommissioned 1/05					
MW-08		INT	7/2/2001	19.42	7.59
MW-08	10/1/2001		22.43	4.58	
MW-08	1/16/2002		19.57	7.44	
MW-08	4/8/2002		19.74	7.27	
MW-08	7/3/2002		21.82	5.19	
MW-08	10/7/2002		22.99	4.02	
MW-08	1/16/2003		17.24	9.77	
MW-08	4/21/2003		20.50	6.51	
MW-08	10/6/2003		23.88	3.13	
MW-08	4/2/2004		21.45	5.56	
Decommissioned 1/05					
MW-11R	NET		1/16/2002	6.25	6.47
MW-11R		4/8/2002	6.60	6.12	
MW-11R		4/8/2002	6.60	6.12	
MW-11R		7/3/2002	8.68	4.04	
MW-11R		10/7/2002	10.56	2.16	
MW-11R		1/16/2003	3.12	9.60	
MW-11R		4/21/2003	5.77	6.95	
MW-11R		10/6/2003	3.61	9.11	
MW-11R		4/2/2004	8.62	4.10	
MW-11R		7/13/2005	8.10	4.62	
MW-11R		2/7/2006	4.34	8.38	
MW-11R		7/10/2006	7.84	4.88	
MW-11R		1/8/2007	2.89	9.83	
MW-11R		7/16/2007	11.76	0.96	
MW-11R		1/23/2008	4.48	8.24	
MW-11R		6/17/2008	9.45	3.27	
MW-11R		1/13/2009	5.53	7.19	
MW-11R		7/8/2009	NR	----	
MW-11R		1/26/2010	4.88	7.84	
MW-11R		7/28/2010	7.05	5.67	
MW-11R		1/21/2011	4.73	7.99	
MW-11R		7/15/2011	9.27	3.45	
MW-11R		1/23/2012	NR	----	
MW-11R		7/19/2012	14.65	0.42	
MW-11R		1/23/2013	11.52	2.68	
MW-11R		7/18/2013	11.00	3.20	
MW-11R		1/31/2014	9.08	3.20	
MW-11R		7/25/2014	16.82	-2.62	
MW-11R		7/28/2015	11.59	2.61	
MW-11R		1/19/2016	14.11	0.09	
MW-11R		7/18/2016	17.19	-2.99	
MW-11R		1/26/2017	12.05	2.15	
MW-11R	7/20/2017	16.11	-1.91		
MW-11R	2/9/2018	10.87	3.33		
MW-11R	7/31/2018	16.12	-1.92		
MW-11R	1/15/2019	9.17	5.03		
MW-11R	7/10/2019	15.62	-1.42		
MW-11R	2/3/2020	7.88	6.32		
MW-11R	7/21/2020	17.94	-3.74		

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-14	S, INT	7/2/2001	17.85	8.40
MW-14		10/1/2001	20.38	5.87
MW-14		1/16/2002	18.20	8.05
MW-14		4/8/2002	18.45	7.80
MW-14		7/3/2002	20.36	5.89
MW-14		10/7/2002	20.35	5.90
MW-14		1/16/2003	19.52	6.73
MW-14		4/21/2003	18.16	8.09
MW-14		10/6/2003	20.39	5.86
Decommissioned 1/05				
MW-17	S, INT	7/2/2001	11.32	13.89
MW-17		10/1/2001	2.91	22.30
MW-17		1/16/2002	NR	----
MW-17		4/8/2002	NR	----
MW-17		7/3/2002	NR	----
MW-17		10/7/2002	NR	----
MW-17		1/16/2003	NR	----
MW-17		4/21/2003	13.91	12.44
MW-17		10/6/2003	17.40	7.76
MW-17		4/2/2004	16.95	9.40
Decommissioned 1/05				
MW-21	NET	7/2/2001	17.19	25.33
MW-21		10/1/2001	17.23	24.96
MW-21		1/16/2002	16.51	25.68
MW-21		4/8/2002	16.39	25.80
MW-21		7/3/2002	16.72	25.47
MW-21		10/7/2002	17.19	25.00
MW-21		1/16/2003	17.10	25.09
MW-21		4/21/2003	16.93	25.26
MW-21		10/6/2003	17.78	24.41
MW-21		4/2/2004	17.52	24.67
MW-21		7/13/2005	17.79	24.40
MW-21		2/7/2006	17.00	25.19
Abandoned, 2006				
MW-21R	NET	1/13/2009	13.78	25.58
MW-21R		7/8/2009	14.26	25.10
MW-21R		1/26/2010	13.94	25.42
MW-21R		7/28/2010	13.06	26.30
MW-21R		1/21/2011	13.08	26.28
MW-21R		7/15/2011	12.66	26.70
MW-21R		1/23/2012	13.05	26.31
MW-21R		7/19/2012	12.55	26.81
MW-21R		1/23/2013	11.78	27.58
MW-21R		7/18/2013	12.19	27.17
MW-21R		2/1/2014	12.32	27.04
MW-21R		7/25/2014	12.36	27.00
MW-21R		2/10/2015	11.95	27.41
MW-21R		7/30/2015	12.61	26.75
MW-21R		1/19/2016	12.78	26.58
MW-21R		7/18/2016	12.72	26.64
MW-21R		1/26/2017	12.41	26.95
MW-21R		7/20/2017	12.92	26.44
MW-21R		2/9/2018	11.42	27.94
MW-21R		7/31/2018	11.91	27.45
MW-21R	1/15/2019	11.86	27.50	
MW-21R	7/10/2019	12.45	26.91	
MW-21R	2/3/2020	12.45	26.91	
MW-21R	7/21/2020	12.55	26.81	

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-22	S, NET	7/2/2001	10.98	16.79
MW-22		10/1/2001	10.93	16.84
MW-22		1/16/2002	11.04	16.73
MW-22		4/8/2002	10.94	16.83
MW-22		7/3/2002	11.01	16.76
MW-22		10/7/2002	11.05	16.72
MW-22		1/16/2003	10.99	16.78
MW-22		4/21/2003	10.94	16.83
MW-22		10/6/2003	11.01	16.76
MW-22		4/2/2004	10.95	16.82
MW-22		7/13/2005	10.99	16.78
MW-22		2/7/2006	10.87	16.90
MW-22		7/10/2006	10.84	16.93
MW-22		1/8/2007	10.79	16.98
MW-22		7/16/2007	8.43	19.34
MW-22		1/23/2008	10.68	17.09
MW-22		6/17/2008	10.78	16.99
MW-22		1/13/2009	10.63	17.14
MW-22		7/8/2009	NR	----
MW-22		1/26/2010	NR	----
MW-22		7/28/2010	NR	----
MW-22		1/21/2011	NR	----
MW-22		7/15/2011	10.50	17.27
MW-22		1/23/2012	13.13	14.64
MW-22		7/19/2012	NR	----
MW-22		1/23/2013	15.56	12.21
MW-22		7/18/2013	15.78	11.99
MW-22		2/1/2014	15.81	11.96
MW-22	7/28/2014	21.65	6.12	
MW-22	2/10/2015	15.43	12.34	
MW-23	S, INT	7/2/2001	19.44	12.05
MW-23		10/1/2001	19.70	11.79
MW-23		1/16/2002	18.71	12.78
MW-23		4/8/2002	18.69	12.80
MW-23		7/3/2002	19.58	11.91
MW-23		10/7/2002	19.74	11.75
MW-23		1/16/2003	18.90	12.59
MW-23		4/21/2003	18.42	13.07
MW-23		10/6/2003	19.72	11.77
MW-23		4/2/2004	18.93	12.56
Decommissioned 1/05				
MW-24	S, NET	7/2/2001	8.14	9.76
MW-24		10/1/2001	9.52	8.38
MW-24		1/16/2002	6.66	11.24
MW-24		4/8/2002	7.33	10.57
MW-24		7/3/2002	8.68	9.22
MW-24		10/7/2002	16.73	1.17
MW-24		1/16/2003	7.29	10.61
MW-24		4/21/2003	6.95	10.95
MW-24		10/6/2003	11.14	6.76
MW-24		4/2/2004	7.61	10.29
MW-24		7/13/2005	8.68	9.22
MW-24		2/7/2006	6.97	10.93
MW-24		7/10/2006	8.26	9.64
MW-24		1/8/2007	7.71	10.19
MW-24		7/16/2007	6.66	11.24
MW-24		1/23/2008	7.36	10.54
MW-24		6/17/2008	7.57	10.33
MW-24		1/13/2009	7.04	10.86
MW-24		7/8/2009	8.65	9.25
MW-24		1/26/2010	6.90	11.00
MW-24		7/28/2010	8.26	9.64
MW-24		1/21/2011	5.90	12.00
MW-24		7/15/2011	7.82	10.08
MW-24		1/24/2012	7.50	10.40
MW-24		7/19/2012	7.66	10.24
MW-24		1/23/2013	7.35	10.55
MW-24		7/18/2013	4.12	New TOC
MW-24		1/31/2014	2.58	New TOC
MW-24	7/28/2014	3.15	New TOC	
MW-24	2/9/2015	2.55	New TOC	
MW-24	7/22/2020	4.21	New TOC	

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation	
MW-25	S, NET	7/2/2001	8.46	7.92	
MW-25		10/1/2001	8.65	7.73	
MW-25		1/16/2002	6.76	9.62	
MW-25		4/8/2002	7.57	8.81	
MW-25		7/3/2002	8.22	8.16	
MW-25		10/7/2002	9.05	7.33	
MW-25		1/16/2003	6.98	9.40	
MW-25		4/21/2003	7.00	9.38	
MW-25		10/6/2003	9.17	7.21	
MW-25		4/2/2004	7.94	8.44	
MW-25		7/13/2005	8.19	8.19	
MW-25		2/7/2006	6.78	9.60	
MW-25		7/10/2006	8.13	8.25	
MW-25		1/8/2007	5.78	10.60	
MW-25		7/16/2007	7.02	9.36	
MW-25		1/23/2008	6.30	10.08	
MW-25		6/17/2008	6.66	9.72	
MW-25		1/13/2009	6.27	10.11	
MW-25		7/8/2009	8.06	8.32	
MW-25		1/26/2010	5.86	10.52	
MW-25		7/28/2010	7.99	8.39	
MW-25		1/21/2011	4.90	11.48	
MW-25		7/15/2011	7.54	8.84	
MW-25		1/24/2012	5.33	11.05	
MW-25		7/19/2012	6.90	9.48	
MW-25		1/23/2013	6.20	10.18	
MW-25		7/18/2013	3.70	NEW TOC	
MW-25		1/31/2014	1.32	NEW TOC	
MW-25	7/28/2014	3.54	NEW TOC		
MW-25	2/9/2015	2.02	NEW TOC		
MW-25	7/22/2020	4.12	NEW TOC		
MW-26	S, NET	7/2/2001	10.31	6.13	
MW-26		10/1/2001	10.20	6.24	
MW-26		1/16/2002	6.11	10.33	
MW-26		4/8/2002	6.35	10.09	
MW-26		7/3/2002	10.29	6.15	
MW-26		10/7/2002	10.43	6.01	
MW-26		1/16/2003	6.55	9.89	
MW-26		4/21/2003	6.42	10.02	
MW-26		10/6/2003	10.47	5.97	
MW-26		4/2/2004	9.81	6.63	
MW-26		7/13/2005	10.07	6.37	
MW-26		2/7/2006	9.27	7.17	
MW-26		7/10/2006	11.02	5.42	
MW-26		1/8/2007	7.94	8.50	
MW-26		7/16/2007	9.16	7.28	
MW-26		1/23/2008	9.60	6.84	
MW-26		6/17/2008	9.85	6.59	
MW-26		1/13/2009	8.43	8.01	
MW-26		7/8/2009	9.64	6.80	
MW-26		1/26/2010	8.85	7.59	
MW-26		7/28/2010	9.05	7.39	
MW-26		1/21/2011	4.10	12.34	
MW-26		7/15/2011	8.08	8.36	
MW-26		1/23/2012	5.52	10.92	
MW-26		1/23/2013	4.90	11.54	
MW-26		7/18/2013	4.17	NEW TOC	
MW-27		S, NET	7/2/2001	8.30	8.11
MW-27			10/1/2001	7.77	8.64
MW-27	1/17/2002		9.20	7.21	
MW-27	4/8/2002		6.62	9.79	
MW-27	7/3/2002		6.81	9.60	
MW-27	10/7/2002		6.00	10.41	
MW-27	1/16/2003		6.46	9.95	
MW-27	4/21/2003		6.75	9.66	
MW-27	10/6/2003		7.87	8.54	
MW-27	4/2/2004		5.49	10.92	
MW-27	7/13/2005		5.94	10.47	
MW-27	2/7/2006		6.90	9.51	
MW-27	7/10/2006		6.96	9.45	
MW-27	1/8/2007		6.09	10.32	
MW-27	7/16/2007		6.02	10.39	
MW-27	1/23/2008		6.84	9.57	
MW-27	6/17/2008		7.03	9.38	
MW-27		Decommissioned 11/08			

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-28	NET	7/2/2001	9.98	6.65
MW-28		10/1/2001	10.35	6.28
MW-28		1/17/2002	8.67	7.96
MW-28		4/8/2002	9.01	7.62
MW-28		7/3/2002	10.52	6.11
MW-28		10/7/2002	11.72	4.91
MW-28		1/16/2003	6.46	10.17
MW-28		4/21/2003	9.45	7.18
MW-28		10/6/2003	9.62	7.01
MW-28		4/2/2004	10.15	6.48
MW-28		7/13/2005	10.25	6.38
MW-28		2/7/2006	7.61	9.02
MW-28		7/10/2006	12.71	3.92
MW-28		1/8/2007	6.78	9.85
MW-28		7/16/2007	10.51	6.12
MW-28		1/23/2008	9.12	7.51
MW-28		6/17/2008	10.00	6.63
		Decommissioned 11/08		
MW-29	NET	7/2/2001	8.44	7.52
MW-29		10/1/2001	8.75	7.21
MW-29		1/16/2002	7.36	8.6
MW-29		4/8/2002	7.75	8.21
MW-29		7/3/2002	9.06	6.90
MW-29		10/7/2002	10.21	5.75
MW-29		1/16/2003	5.92	10.04
MW-29		4/21/2003	7.05	8.91
MW-29		10/6/2003	7.60	8.36
MW-29		4/2/2004	8.60	7.36
MW-29		7/13/2005	8.56	7.40
MW-29		2/7/2006	5.94	10.02
MW-29		7/10/2006	11.27	4.69
MW-29		1/8/2007	5.08	10.88
MW-29		7/16/2007	8.54	7.42
MW-29		1/23/2008	7.41	8.55
MW-29		6/17/2008	8.50	7.46
MW-29		1/13/2009	6.03	9.93
MW-29		7/8/2009	9.64	6.32
MW-29		1/26/2010	5.12	10.84
MW-29	7/28/2010	10.05	5.91	
MW-29	1/21/2011	3.84	12.12	
MW-29	7/15/2011	5.63	10.33	
MW-29	1/23/2012	NR	----	
		Well damaged		
MW-29R		7/28/2015	7.64	No TOC Survey
MW-29R		1/19/2016	11.50	No TOC Survey
MW-29R		7/14/2016	4.92	No TOC Survey
MW-29R		1/26/2017	3.18	No TOC Survey
MW-29R		7/20/2017	5.65	No TOC Survey
MW-29R		2/8/2018	1.92	No TOC Survey
MW-29R		8/1/2018	3.90	No TOC Survey
MW-29R		1/29/2019	3.61	No TOC Survey
MW-29R		7/10/2019	5.87	No TOC Survey
MW-29R		2/3/2020	3.06	No TOC Survey
MW-29R		7/22/2020	3.15	No TOC Survey
MW-30	NET	7/2/2001	7.95	7.95
MW-30		10/1/2001	13.29	2.61
MW-30		1/16/2002	9.06	6.84
MW-30		4/8/2002	9.09	6.81
MW-30		7/3/2002	11.70	4.20
MW-30		10/7/2002	12.87	3.03
MW-30		1/16/2003	5.92	9.98
MW-30		4/21/2003	11.07	4.83
MW-30		10/6/2003	6.08	9.82
MW-30		4/2/2004	11.38	4.52
MW-30		7/13/2005	11.51	4.39
MW-30		2/7/2006	7.25	8.65
MW-30		7/10/2006	15.37	0.53
MW-30		1/8/2007	6.37	9.53
MW-30		7/16/2007	13.18	2.72
MW-30		1/23/2008	7.21	8.69
MW-30		6/17/2008	13.11	2.79
MW-30		1/13/2009	8.40	7.50
MW-30		7/8/2009	NR	----
MW-30		1/26/2010	8.37	7.53
MW-30		7/28/2010	10.17	5.73
MW-30		1/21/2011	6.12	9.78
MW-30		7/15/2011	11.28	4.62
MW-30		1/24/2012	8.00	7.90
MW-30		7/19/2012	13.90	2.00
MW-30		1/23/2013	8.85	7.05
MW-30		7/18/2013	6.65	NEW TOC
MW-30		1/31/2014	5.22	NEW TOC
MW-30		7/28/2014	11.87	NEW TOC
MW-30		2/9/2015	4.66	NEW TOC

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-30		7/28/2015	13.31	NEW TOC
MW-30		1/19/2016	3.41	NEW TOC
MW-30		7/14/2016	6.79	NEW TOC
MW-30		1/26/2017	6.97	NEW TOC
MW-30		7/20/2017	7.24	NEW TOC
MW-30		2/8/2018	3.63	NEW TOC
MW-30		8/1/2018	5.37	NEW TOC
MW-30		2/8/2018	3.63	NEW TOC
MW-30		8/1/2018	5.37	NEW TOC
MW-30		1/15/2019	2.81	NEW TOC
MW-30		7/10/2019	8.33	NEW TOC
MW-30		2/3/2020	1.50	NEW TOC
MW-30		7/22/2020	8.90	NEW TOC
MW-31	NET	7/2/2001	11.45	6.96
MW-31		10/1/2001	15.77	2.64
MW-31		1/16/2002	12.32	6.09
MW-31		4/8/2002	12.36	6.05
MW-31		7/3/2002	15.00	3.41
MW-31		10/7/2002	16.61	1.80
MW-31		1/16/2003	8.61	9.80
MW-31		4/21/2003	13.16	5.25
MW-31		10/6/2003	9.08	9.33
MW-31		4/2/2004	14.63	3.78
MW-31		7/13/2005	14.20	4.21
MW-31		2/7/2006	10.20	8.21
MW-31		7/10/2006	18.57	-0.16
MW-31		1/8/2007	9.06	9.35
MW-31		7/16/2007	18.76	-0.35
MW-31		1/23/2008	12.58	5.83
MW-31		6/17/2008	16.24	2.17
MW-31		1/13/2009	11.34	7.07
MW-31		7/8/2009	18.93	-0.52
MW-31		1/26/2010	10.97	7.44
MW-31		7/28/2010	13.10	5.31
MW-31		1/21/2011	9.69	8.72
MW-31		7/15/2011	14.31	4.10
MW-31		1/24/2012	11.95	6.46
MW-31		7/19/2012	17.55	0.86
MW-31		1/23/2013	12.05	6.36
MW-31		7/18/2013	14.72	NEW TOC
MW-31		1/31/2014	9.35	NEW TOC
MW-31		7/28/2014	11.86	NEW TOC
MW-31		2/9/2015	7.38	NEW TOC
MW-31		7/28/2015	14.47	NEW TOC
MW-31		1/19/2016	5.29	NEW TOC
MW-31		7/14/2016	10.30	NEW TOC
MW-31		1/26/2017	8.31	NEW TOC
MW-31		7/20/2017	11.80	NEW TOC
MW-31		2/8/2018	5.80	NEW TOC
MW-31		8/1/2018	7.60	NEW TOC
MW-31		1/15/2019	3.96	NEW TOC
MW-31		7/10/2019	11.13	NEW TOC
MW-31		2/3/2020	2.94	NEW TOC
MW-31		7/22/2020	12.35	NEW TOC
MW-32	INT	7/2/2001	4.62	17.55
MW-32		10/1/2001	5.55	16.62
MW-32		1/17/2002	2.69	19.48
MW-32		4/8/2002	2.80	19.37
MW-32		7/3/2002	4.54	17.63
MW-32		10/7/2002	4.85	17.32
MW-32		1/16/2003	3.72	18.45
MW-32		4/21/2003	2.54	19.63
MW-32		10/6/2003	4.52	17.65
MW-32		4/2/2004	5.10	17.07
		Decommissioned 1/05		

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-33	BG	7/2/2001	48.54	25.76
MW-33		10/1/2001	NR	NR
MW-33		1/16/2002	48.34	25.96
MW-33		4/8/2002	48.16	26.14
MW-33		7/3/2002	48.43	25.87
MW-33		10/7/2002	NR	----
MW-33		1/17/2003	49.06	25.24
MW-33		4/21/2003	48.67	25.63
MW-33		10/6/2003	47.20	27.10
MW-33		4/2/2004	49.25	25.05
MW-33		7/13/2005	NR	----
MW-33		2/7/2006	NR	----
MW-33		7/10/2006	NR	----
MW-33		1/8/2007	NR	----
MW-33		7/16/2007	NR	----
MW-33		1/23/2008	47.97	26.33
MW-33		6/17/2008	NR	----
MW-33		1/13/2009	48.15	26.15
MW-33		7/8/2009	NR	----
MW-33		1/26/2010	48.37	25.93
MW-33		7/28/2010	48.02	26.28
MW-33		1/21/2011	NR	----
MW-33		7/15/2011	46.92	27.38
MW-33		1/23/2012	47.56	26.74
MW-33		7/19/2012	46.84	27.46
MW-33		1/23/2013	46.05	28.25
MW-33	7/18/2013	46.50	27.80	
MW-33	2/1/2014	NR	----	
MW-33	7/25/2014	46.60	27.70	
MW-33	2/10/2015	46.33	27.97	
MW-34	S, BG	7/2/2001	17.18	57.19
MW-34		10/1/2001	17.59	56.78
MW-34		1/16/2002	16.78	57.59
MW-34		4/8/2002	16.46	57.91
MW-34		7/3/2002	16.74	57.63
MW-34		10/7/2002	17.17	57.20
MW-34		1/16/2003	17.04	57.33
MW-34		4/21/2003	16.92	57.45
MW-34		10/6/2003	17.76	56.61
MW-34		4/2/2004	16.97	57.40
MW-34		7/13/2005	17.31	57.06
MW-34		2/7/2006	17.04	57.33
MW-34		7/10/2006	17.28	57.09
MW-34		1/8/2007	16.84	57.53
MW-34		7/16/2007	16.63	57.74
MW-34		1/23/2008	16.42	57.95
MW-34		6/17/2008	NR	----
MW-34		1/13/2009	16.50	57.87
MW-34		7/8/2009	NR	----
MW-34		1/26/2010	16.82	57.48
MW-34		7/28/2010	16.71	57.59
MW-34		1/21/2011	NR	----
MW-34		7/15/2011	16.15	58.15
MW-34		1/23/2012	16.61	57.69
MW-34		7/19/2012	16.24	58.06
MW-34		1/23/2013	15.85	58.45
MW-34	7/18/2013	16.15	58.15	
MW-34	2/1/2014	16.45	57.85	
MW-34	7/25/2014	16.60	57.70	
MW-34	2/10/2015	16.17	58.13	
MW-35	BG	7/2/2001	48.43	24.82
MW-35		10/1/2001	48.89	24.36
MW-35		1/16/2002	48.32	24.93
MW-35		4/8/2002	48.11	25.14
MW-35		7/3/2002	48.46	24.79
MW-35		10/7/2002	48.85	24.40
MW-35		1/16/2003	48.89	24.36
MW-35		4/21/2003	48.77	24.48
MW-35		10/6/2003	49.38	23.87
MW-35		4/2/2004	49.24	24.01
MW-35		7/13/2005	49.53	23.72
MW-35		2/7/2006	49.06	24.19
MW-35		7/10/2006	49.02	24.23
MW-35		Abandoned, 2006		

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-36	POC	7/2/2001	9.79	1.13
MW-36		10/1/2001	9.98	0.94
MW-36		1/16/2002	5.10	5.82
MW-36		4/8/2002	4.92	6.00
MW-36		7/3/2002	6.95	3.97
MW-36		10/7/2002	9.11	1.81
MW-36		1/16/2003	1.78	9.14
MW-36		4/21/2003	8.10	2.82
MW-36		10/6/2003	9.97	0.95
MW-36		4/2/2004	7.46	3.46
MW-36		7/13/2005	5.89	5.03
MW-36		2/7/2006	2.68	8.24
MW-36		7/10/2006	12.40	-1.48
MW-36		1/8/2007	1.07	9.85
MW-36		7/16/2007	6.82	4.10
MW-36		1/23/2008	3.53	7.39
MW-36		6/17/2008	7.98	2.94
MW-36		1/13/2009	3.34	7.58
MW-36		7/8/2009	11.44	-0.52
MW-36		1/26/2010	3.14	7.78
MW-36		7/28/2010	5.65	5.27
MW-36		1/21/2011	3.75	7.17
MW-36		7/15/2011	7.86	3.06
MW-36		1/23/2012	4.26	6.66
MW-36		7/19/2012	7.33	3.59
MW-36		1/23/2013	4.62	6.30
MW-36		7/18/2013	3.45	7.47
MW-36		1/31/2014	4.03	6.89
MW-36		7/28/2014	8.00	2.92
MW-36		2/10/2015	0.70	10.22
MW-36		7/29/2015	5.83	5.09
MW-36		1/22/2016	3.01	7.91
MW-36	7/14/2016	10.39	0.53	
MW-36	2/1/2017	4.71	6.21	
MW-36	7/20/2017	10.05	0.87	
MW-36	2/9/2018	3.40	7.52	
MW-36	8/1/2018	9.04	1.88	
MW-36	1/29/2019	1.70	9.22	
MW-36	7/10/2019	9.11	1.81	
MW-36	2/4/2020	1.94	8.98	
MW-36	7/23/2020	10.01	0.91	
MW-37	POC	7/2/2001	12.41	1.87
MW-37		10/1/2001	13.77	0.51
MW-37		1/16/2002	8.30	5.98
MW-37		4/8/2002	7.99	6.29
MW-37		7/3/2002	10.12	4.16
MW-37		10/7/2002	12.55	1.73
MW-37		1/16/2003	5.27	9.01
MW-37		4/21/2003	12.10	2.18
MW-37		10/6/2003	12.89	1.39
MW-37		4/2/2004	10.82	3.46
MW-37		7/13/2005	9.02	5.26
MW-37		2/7/2006	5.79	8.49
MW-37		7/10/2006	16.15	-1.87
MW-37		1/8/2007	4.50	9.78
MW-37		7/16/2007	10.32	3.96
MW-37		1/23/2008	5.90	8.38
MW-37		6/17/2008	12.38	1.90
MW-37		1/13/2009	5.55	8.73
MW-37		7/8/2009	15.27	-0.99
MW-37		1/26/2010	6.77	7.51
MW-37		7/28/2010	8.82	5.46
MW-37		1/21/2011	7.13	7.15
MW-37		7/15/2011	11.94	2.34
MW-37		1/23/2012	NR	---
MW-37		7/29/2015	2.56	11.72
MW-37		1/22/2016	6.08	8.20
MW-37		7/14/2016	14.05	0.23
MW-37		2/1/2017	10.38	3.90
MW-37		7/20/2017	13.13	1.15
MW-37		2/8/2018	7.25	7.03
MW-37		8/2/2018	11.55	2.73
MW-37		1/29/2019	4.50	9.78
MW-37	7/10/2019	11.52	2.76	
MW-37	2/4/2020	5.72	8.56	
MW-37	7/23/2020	10.44	3.84	

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-38	POC	7/2/2001	10.16	3.46
MW-38		10/1/2001	12.49	1.13
MW-38		1/16/2002	7.91	5.71
MW-38		4/8/2002	7.18	6.44
MW-38		7/3/2002	9.71	3.91
MW-38		10/7/2002	9.34	4.28
MW-38		1/16/2003	5.00	8.62
MW-38		4/21/2003	11.25	2.37
MW-38		10/6/2003	5.55	8.07
MW-38		4/2/2004	10.19	3.43
MW-38		7/13/2005	8.47	5.15
MW-38		2/7/2006	5.59	8.03
MW-38		7/10/2006	15.25	-1.63
MW-38		1/8/2007	4.17	9.45
MW-38		7/16/2007	9.12	4.50
MW-38		1/23/2008	6.75	6.87
MW-38		6/17/2008	12.82	0.80
MW-38		1/13/2009	8.06	5.56
MW-38		7/8/2009	14.34	-0.72
MW-38		1/26/2010	6.27	7.35
MW-38		7/28/2010	8.43	5.19
MW-38		1/21/2011	6.53	7.09
MW-38		7/15/2011	10.85	2.77
MW-38		1/24/2012	5.53	8.09
MW-38		7/19/2012	10.58	3.04
MW-38		1/23/2013	6.85	6.77
MW-38		7/18/2013	13.00	0.62
MW-38		1/31/2014	9.33	4.29
MW-38		7/28/2014	13.86	-0.24
MW-38		2/9/2015	2.82	10.80
MW-38		7/28/2015	13.26	0.36
MW-38		1/22/2016	5.78	7.84
MW-38		7/14/2016	12.23	1.39
MW-38		2/1/2017	11.13	2.49
MW-38		7/20/2017	13.02	0.60
MW-38		2/9/2018	5.99	7.63
MW-38		7/20/2017	13.02	0.60
MW-38		2/9/2018	5.99	7.63
MW-38		8/2/2018	12.06	1.56
MW-38		1/29/2019	5.30	8.32
MW-38		7/10/2019	8.33	5.29
MW-38		2/5/2020	5.33	8.29
MW-38		7/23/2020	12.75	0.87
MW-39	POC	7/2/2001	6.91	6.99
MW-39		10/1/2001	9.02	4.88
MW-39		1/16/2002	6.69	7.21
MW-39		4/8/2002	7.48	6.42
MW-39		7/3/2002	8.72	5.18
MW-39		10/7/2002	9.90	4.00
MW-39		1/16/2003	6.31	7.59
MW-39		4/21/2003	7.85	6.05
MW-39		10/6/2003	10.44	3.46
MW-39		4/2/2004	8.34	5.56
MW-39		7/13/2005	8.46	5.44
MW-39		2/7/2006	5.91	7.99
MW-39		7/10/2006	9.67	4.23
MW-39		1/8/2007	5.02	8.88
MW-39		7/16/2007	7.49	6.41
MW-39		1/23/2008	7.47	6.43
MW-39		6/17/2008	8.63	5.27
MW-39		1/13/2009	6.08	7.82
MW-39		7/8/2009	10.35	3.55
MW-39		1/26/2010	5.13	8.77
MW-39		7/28/2010	8.05	5.85
MW-39		1/21/2011	5.00	8.90
MW-39		7/15/2011	7.43	6.47
MW-39		1/24/2012	5.23	8.67
MW-39		7/19/2012	10.28	3.62
MW-39		1/23/2013	6.85	7.05
MW-39	7/18/2013	NR	--	
MW-39	1/31/2014	NR	--	
MW-39	7/25/2014	NR	--	
MW-39R		7/28/2015	12.68	No TOC Survey
MW-39R		1/19/2016	9.23	No TOC Survey
MW-39R		7/15/2016	11.79	No TOC Survey
MW-39R		2/1/2017	8.44	No TOC Survey
MW-39R		7/20/2017	12.41	No TOC Survey
MW-39R		2/8/2018	7.68	No TOC Survey
MW-39R		7/31/2018	10.60	No TOC Survey
MW-39R		1/29/2019	5.90	No TOC Survey
MW-39R		7/10/2019	10.28	No TOC Survey
MW-39R		2/3/2020	3.84	No TOC Survey
MW-39R		7/22/2020	7.53	No TOC Survey

**Table 2
Ground Water Elevations
Everett Landfill**

Well	Type	Date	Water Depth	Water Elevation
MW-40	BGM	7/19/2005	14.86	-0.65
MW-40		2/7/2006	7.75	6.46
MW-40		7/10/2006	9.84	4.37
MW-40		1/8/2007	6.38	7.83
MW-40		7/16/2007	15.23	-1.02
MW-40		1/23/2008	8.01	6.20
Decommissioned 2/08				
MW-41	BGM	7/19/2005	16.40	-2.01
MW-41		2/7/2006	7.98	6.42
MW-41		7/10/2006	9.68	4.72
MW-41		1/8/2007	6.83	7.57
MW-41		7/16/2007	14.71	-0.32
MW-41		1/23/2008	14.71	-0.32
Decommissioned 2/08				
MW-42	BGM	7/19/2005	1.25	16.04
MW-42		2/7/2006	1.84	15.45
MW-42		7/10/2006	3.80	13.49
MW-42		1/8/2007	1.52	15.77
MW-42		7/16/2007	3.24	14.49
MW-42		1/23/2008	1.40	15.89
Decommissioned 2/08				

NOTES:

- NR = no reading, well decommissioned, damaged, or not located
- S = shallow well (all others are in deep aquifer)
- INT = Interior, well located in interior of site
- BG = Upgradient background well
- BGM = background metals well
- POC = deep aquifer point of compliance monitoring well